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Before the Committee on Appropriations



Department of the Interior and Related Agencies Appropriations

Fiscal Year 1976

94th CONGRESS, FIRST SESSION

Part 2—Justifications, Related Agencies

AUTHENTICATED
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INFORMATION
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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1976

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

NINETY-FOURTH CONGRESS

FIRST SESSION

ON

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING JUNE 30, 1976, AND FOR OTHER PURPOSES

Printed for the use of the Committee on Appropriations

PART 2—Justifications, Related Agencies

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DEPARTMENT OF AGRICULTURE

Forest Service

FOREST SERVICE ROLE IN NATURAL RESOURCE POLICY AND PROGRAMS

The Forest Service has the Federal responsibility for national leadership in "forestry." 1/ This includes participation in setting national priorities, formulating programs, and establishing Federal policies that relate to man and his natural environment, especially the forest-related environment.

Rangeland, grassland, brushland, alpine areas, water areas, and wildlife habitats are included within the scope of forests and the forest-related environment. Forestry is the protection and management of this land and its natural resources for the many and varied purposes of mankind.

Forests provide raw materials for basic necessities of life as well as natural environments for many leisure and educational activities. The Forest Service seeks to attain a harmonious relation between man and his natural environment.

WHAT THE FOREST SERVICE DOES

In carrying out its national forestry leadership role, the Forest Service undertakes a wide variety of activities. Major responsibilities include administration of the National Forest System, Cooperative State and Private Forestry Programs, Forestry Research, and Human Resource Development Programs (Figure 1). These major programs are discussed briefly here:

National Forest System

The Forest Service administers 187 million acres of Federal land located in 44 States, Puerto Rico, and the Virgin Islands. The National Forest System (hereafter called National Forests) is composed of 155 National Forests, 19 National Grasslands, 17 Land Utilization Projects, and 26 Research Areas.

Multiple use is a land management concept designed to obtain sustained flows of goods and services. The various land uses are harmonized to minimize conflicts, and the relative values of the various resources are considered in determining land and resource use patterns that will meet the needs of the American people.

Watersheds are managed to regulate streamflow, to control floods and erosion, and to store water. Much of the Nation's water supply flows from the National Forests; protection and improvement of these natural watersheds help to assure an adequate supply of pure water to meet the growing demands of agriculture, industry, and the American public.

Forage is managed to conserve the soil and vegetation while providing food and habitat for livestock and wildlife. Rangeland is also managed for its recreation, timber, and water resources.

Fish and wildlife habitat in the National Forests and National Grasslands is managed to provide a suitable habitat for native wildlife and fish species. A primary objective is to provide opportunities for sportsmen, bird- and animal-watchers, photographers, and others to enjoy the fish and wildlife resources. Hunting and fishing in the National Forests are regulated by State laws. Forest Service projects aimed at maintaining and improving fish and wildlife habitat are carried out cooperatively with State fish and game agencies.

1/ This responsibility is delegated to the Chief of the Forest Service under Administrative Regulations of the U.S. Department of Agriculture (7 CFR 2.60).

Recreation facilities on forest land are managed to best serve the steadily increasing numbers of Americans seeking relaxation in the outdoors. Attractions range from family picnic areas to vast wilderness tracts. Although much of the enjoyment is afforded by the natural environment of the forest itself, facilities are provided for a wide range of recreational activities--such as, camping, picnicking, boating, swimming, and winter sports.

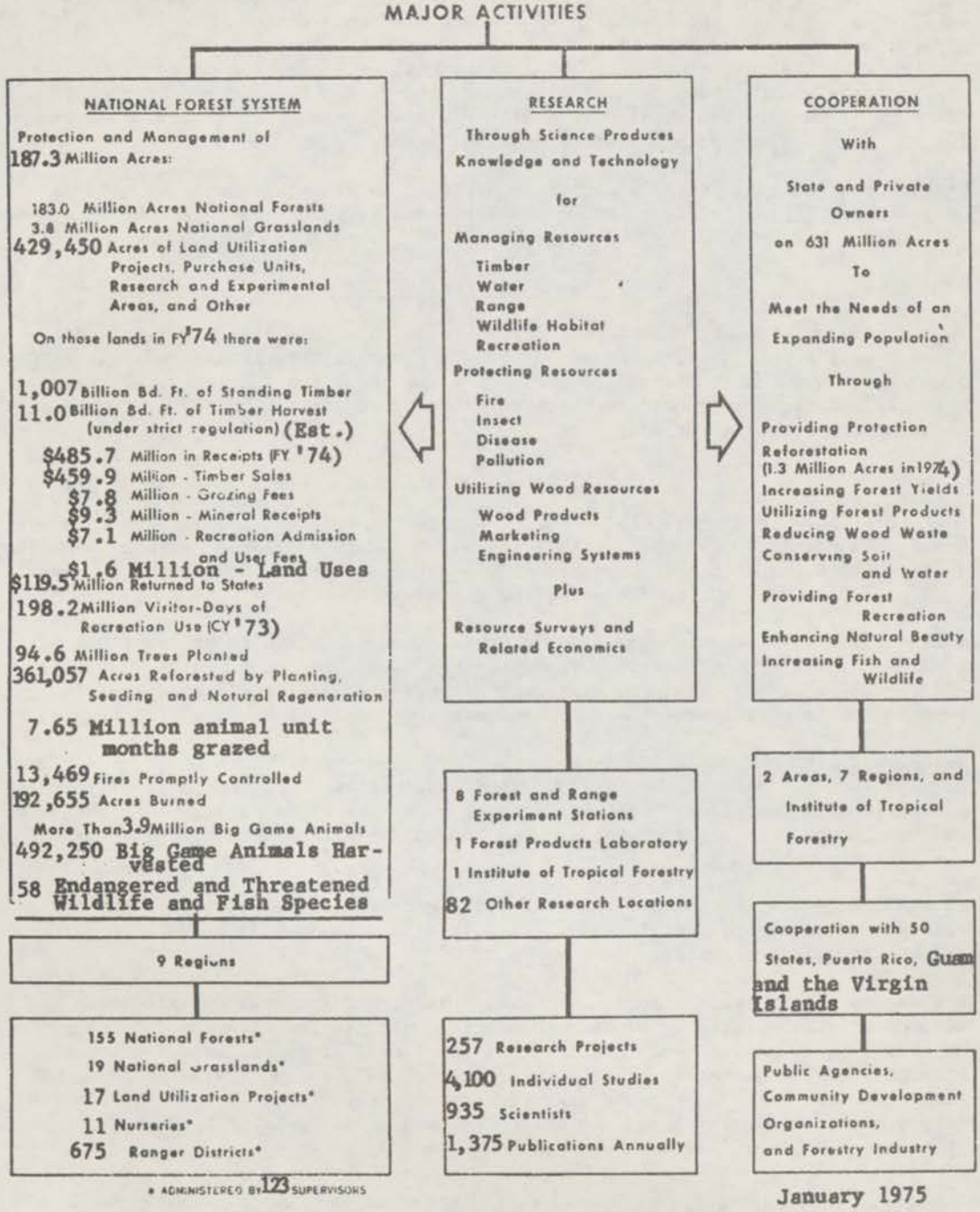


Figure 1

Timber is managed to produce a continuous flow of wood products to serve America's many demands. This "sustained-yield" principle, implemented by modern forestry techniques, helps to assure adequate present and future crops of high-quality timber. As timber stands are improved and growth increases, the annual harvest can be increased.

Inherent is the responsibility to provide appropriate facilities and services for many purposes. Roads and trails must be built and maintained; pipeline and utility rights-of-way must be granted; permits for special uses must be issued; mining claims must be approved; and boundaries must be surveyed. All must be harmonized with other uses to maintain the quality of the environment. Finally, the National Forests must be protected--from wildfire, from harmful insects and diseases, from law violators, and from careless people.

State and Private Forestry

Through cooperative programs with State and local governments, forest industries, and private landowners, the Forest Service helps to protect and manage 631 million acres of forest and associated watershed land. Technical and financial assistance is provided to improve fire, insect, and disease control; to develop multiple use management so as to obtain optimum potential of forest resources; to improve harvesting, processing, and marketing of forest products; and to stimulate reforestation and timber stand improvement.

Cooperative Forest Fire Control Program. All 50 States participate in this program. Each State is responsible for the manpower, equipment, and organization required. The Forest Service provides coordination and financial and technical assistance, including training of fire control personnel, development of equipment, and implementation of research information.

Cooperative Forest Pest Action Program. Forty States now participate in this program to prevent, detect, and evaluate insect and disease damage. Federal cost-sharing and technical assistance are available to the States to suppress forest insect and disease outbreaks where warranted. The program also includes pest control activities on Federal land.

Cooperative Forest Management and General Forest Assistance Programs. These programs provide technical assistance to private forest landowners, forest operators and processors, and public agencies in developing forest resources to their maximum potential consistent with wise conservation practices.

Cooperative Tree Seedling Program. Under this program all States and the Virgin Islands cooperate with the Forest Service to establish seed orchards and forest and shelterbelt plantings on State and privately-owned land.

Other Cooperative Programs. The Forest Service carries out the forestry aspects of the Department of Agriculture watershed protection, flood prevention, and resource conservation and development programs. Watershed restoration and resource development work on State and private forest lands is done by the State forestry agencies through cooperative agreements. The forestry aspects of comprehensive resource and river basin planning are provided by Forest Service staff or by State forestry agencies through cooperative agreements.

Forestry Research

The Forest Service carries on a broad program of research through its eight regional Experiment Stations, the Forest Products Laboratory, and the Institute of Tropical Forestry. Field and laboratory research is conducted at nearly 80 locations throughout the United States. The Experiment Stations are responsible for solving regional problems, although much of their work has interregional, national, and international significance. Through coordination and cooperation among Stations, with universities and other research agencies, and with land managers, the research organization works to solve the urgent problems facing managers of the Nation's forest and range resources.

Biological research provides information on the establishment, improvement, and growth of trees, grasses, and other forest-related vegetation. Other research is oriented toward protection of forest resources from fire, insects, diseases, and animal pests in ways that are not detrimental to the forest ecosystem.

Physical and economic research provides new uses for forest resources and develops methods of extending those in limited supply. A continuing forest survey provides comprehensive information on the extent and condition of forest land and the outlook for future supplies and demands. Research programs examine impacts of forest use activities on water quality, soil erosion, and sediment production. Systems of livestock grazing management are developed along with methods of managing fish and wildlife habitat. Other studies are geared toward integration of recreation and esthetic objectives with other multiple uses.

International Forestry. Leadership is provided through cooperation and exchange with forestry organizations and individuals of other countries.

Human Resource Development Programs

The Forest Service participates in general cooperative manpower programs authorized by the Comprehensive Employment and Training Act of 1973 (87 Stat. 839). Under an agreement with the Department of Labor, the Forest Service operates Job Corps Civilian Conservation Centers to provide basic education and job training to disadvantaged youth. Other cooperative work-training programs the Forest Service participates in include Operation Mainstream for older Americans, Neighborhood Youth Corps, College Work-study, and special training programs under the Manpower Development and Training Act. The programs provide work and training to several thousand enrollees each year.

In 1971, the Forest Service, in cooperation with the Department of the Interior, initiated a Youth Conservation Corps Program. This program accomplishes needed conservation work on Federal land administered by the Secretaries of Agriculture and Interior. It also provides young men and women from throughout American society with an opportunity to learn about their natural environment through actual field experience. Since fiscal year 1974, there has been a comparable program on State-owned lands.

All Forest Service activities seek to increase job opportunities and to raise standards of living under the Department of Agriculture rural development program.

DEMANDS FOR FOREST RESOURCES

Essential to the formulation of programs is prediction of the demand for the goods and services to be produced. The following briefly describes the projected demands for the many resources produced by America's forests. To set the stage for considering the predictions themselves, let us first note briefly some of the key factors that will affect demand.

INFLUENCES ON CONSUMPTION

Four powerful influences on consumption will continue to work in the future as they have in the past:

(1) Growth in population or households.
(2) Increases in income and in household and leisure activities.
(3) Shifts in tastes and life styles.
(4) Advancing technology.

Two additional factors have gained in impact in the last few years. They have arisen from shortages caused by failure of resource production to increase as rapidly as demand and by the awareness of our environment's limited ability to absorb society's impacts:

(5) Price increases.
(6) Environmental concerns.

Population. Although recent birth rate trends indicate that future population growth will be much slower than the 21 percent per decade experienced since 1920, the impact of high birth rates in the past will be felt for decades to come (Table 1).

Table 1. Indexes of projected population and activity, 1980-2000. (1970 is base of 100,)

	1975	1980	1984	1990	2000
Population	106	113	119	127	141
Households	113	123	131	143	162
Gross national product	117	138	155	182	246
Disposable personal income	121	145	172	215	320
Disposable personal income per capita	114	131	148	173	233

Source: Forest Service, Outlook for Timber in the United States, 1973c.

Effects of current population growth are often delayed for years, and thus overestimated. For example, impacts of children born this year will be relatively minor for 10 years, except for food, clothing, and schools. In other words, most demand for forest resources in the next decade will come from men, women, and children already alive.

Income and activity. The general increased pace of living has rapidly increased demands for forest commodities and services. Increased productivity of American workers has boosted the real value of labor. The 88 million working people help to produce a gross national product of $1-1/4 trillion. Annual income per household is now about $11,000. Both GNP and total personal income have risen an average of 42 percent per decade and, despite the slackening of population growth, total economic growth is likely to be 40 to 50 percent every 10 years (Table 1). Even with the lowest estimates of population and GNP growth, the quickening pace and changing life styles will certainly consume many more goods and services including those derived from forest resources.

Tastes and lifestyles. Many end uses of forest products and services--new houses, additions and improvements, new furnishings, beef, and long distance vacations--while not necessities, are part of new lifestyles that have evolved in America. And with higher consumption of "discretionary" products and services, the direction and pace of change of demand become highly unpredictable. Most recently energy shortages have begun to influence lifestyles in ways that have not yet been adequately measured.

Technology. Technological progress continues to reduce amounts of raw materials required per unit of final product. In particular, refinements in wood product processing and remanufacture are likely to dampen the increase in demand for roundwood timber by 15 percent by 1980 (Forest Service, 1973c).

Price changes. Throughout the 1950's and 1960's resource scarcities were seldom serious. Prices for most raw materials were relatively stable. Patterns of use were influenced by cheap energy, reasonably priced suburban land, relatively inexpensive food, and stable timber prices. This situation has changed for many raw materials and resources. Worldwide supplies have not kept up with demand for numerous economic and political reasons. The energy shortage, aggravated by the 1973 Mid-East War, brought this forcefully to public attention. Future home construction may be greatly influenced by rising energy and commuting costs, higher lumber and other material prices, increased land prices, and in some areas sewage and other environmental limitations. Patterns of outdoor recreation may be especially affected by gasoline prices and shortages. However, estimating long-run impacts on these price changes and raw material shortages is difficult; projections must be largely subjective at this time.

Environmental costs and limits. Society wants more from its forest environment than tangible goods and services. It wants beauty, solitude, spiritual uplifting, mystery--all the things that are summed up in the word "amenities." Paradoxically the processes that deprive the environment of these qualities are the same processes of natural resource use and product consumption that have so improved modern standards of living. For many years, the so-called "disproducts" of our economic

system--wastes, impaired productivity, despoiled beauty, health and safety hazards--were outside the workings of our market economy. They had little effect on either the producers or consumers of goods and services. They affected third parties--whether neighbors, downstream of distant water or air users, or society at large. Often they affected future society as well as the present one. In the last decades, however, the demand for quality environmental management has become one of America's leading social causes reflected in new pollution regulations and environmental standards and through various legal actions. Whatever the causes, the environmental movement signals a major shift in values and a new set of demands.

SPECIFIC RESOURCE DEMANDS

Clearly, even though we know what things influence demand, we cannot always know precisely how demand will be influenced in the future. Many uncertainties are involved. Nevertheless, some trends are evident, and good planning requires reasonable predictions. In this context then we will consider probable trends in future demand for forest resources. Further detail is available in the USDA Forest Service's "Outlook for Timber in the United States" (1973c), "The Nation's Range Resources--A Forest Range Environmental Study" (1972b), an "Interim Report of the Demand Task Force" (1972), and the USDI Bureau of Outdoor Recreation's "Outdoor Recreation--Appendix A, an Economic Analysis" (1973).

Outdoor Recreation

In recent years recreational use of public land is increasing at a rate comparable to a 40 percent increase per decade (Bureau of Outdoor Recreation, 1971). Reasons for this accelerating demand are increasing incomes, more leisure time, the youthfulness of America's population, and growing preference for environmental amenities.

One of the fastest growing types of recreation use has been automobile travel for recreation and related activities in dispersed areas. Such use comprised 23 percent of all visitor-days spent on National Forest lands in 1972. Automobile travel is likely to be affected by the extent of energy shortages within the next decade.

Many recreational activities are physically demanding, and are sensitive to population age changes. Among them are camping, wilderness travel, fishing, hunting, off-road vehicle travel, and skiing. One reason for the surge in recreation use in the last 10 years is the population growth increase from 1946 to the mid-1950's. Babies born during that decade were ready to take to the woods two decades later. The 1940-60 baby boom however, was followed by one of the longest and deepest slumps in the fertility rate in U.S. history. We do not know the full implication of the decline in the birth rate, but we do know that participation in physically demanding outdoor recreation diminishes with age (Bureau of Outdoor Recreation, 1973). Thus, the rate of currently accelerating recreation demand may soon moderate (Table 2).

The slowdown in rate of growth for some kinds of recreation will first appear as a result of reduced numbers of 15-19 year olds from 1975 through 1985. It will affect activities teenagers prefer for outdoor recreation. This will be followed by a diminishing rate of growth in activities common to the 20-24 age set, beginning about 1980 and continuing through 1990. Thus, the effect of the dropoff in fertility rate will work its way through each age group influencing corresponding outdoor recreation demand for a generation.

Table 2. Indexes of projections of selected National Forest recreation uses, 1980 to 2000. (1970 is base of 100.)

	1975	1980	1984	1990	2000
Camping	113	124	132	143	166
Big game hunting	107	114	119	128	142
Small game hunting	107	115	119	130	143
Off-road vehicles	126	139	148	158	177
Skiing	111	121	127	137	150
Fishing	109	117	122	133	146

Source: Demand Task Force, Interim Report of Demand Task Force, 1972.

Camping--particularly in developed campgrounds--has probably grown faster than most other outdoor activity. Outdoor Recreation Resources Review Commission (1962) estimated that in 1960 about 8 percent of the population 12 years and older camped. By 1972, the number grew to 11 percent of the population (Bureau of Outdoor Recreation. 1973). Until 1972 the fastest growing segment of the camping market was auto and trailer camping. The 1960's saw the beginning of a recreational vehicle boom with the introduction of motor homes and pickup covers. By the end of 1971, more than 4 million such vehicles were in use (Demand Task Force, 1972). Recreation vehicle use is typically family-oriented and has been a major impetus to the camping boom.

But while there have been many recruits to camping, there are rising numbers of camping dropouts. In a recent study of camping habits (LaPage, 1973), each camping family that camped more frequently was offset by two other families who camped less each year. Some 20 percent of former campers were no longer active, a third had decreased their camping, and many of the rest reported that they were camping more but enjoying it less. Many members said that campgrounds were deteriorating and that a new breed of inconsiderate campers was taking over--a sharp contrast to comments made by the same campers earlier. Shortages of gasoline or, in the long run, higher prices may discourage new families from starting to camp and force veteran campers to curtail their camping. Camping may tend to be concentrated in areas close to urban centers. If past practices continue, however, camping recruits are likely to exceed camping dropouts. Camping is expected to increase 19 percent per decade on Forest Service land if the fuel situation does not worsen, but less if gasoline prices continue to rise.

Wilderness travel on National Forest land has increased 80 percent in the past decade, a rate that cannot be sustained for long. Because of this rapid pace and the potential addition of more wilderness areas, meaningful long-term projections cannot be made. Fuel shortages will likely curtail wilderness use, but not to the same degree as for camping. Wilderness users are somewhat younger, more urban, and often more affluent than most other campers.

Fishing is the second largest (after camping) physical recreation activity on National Forests. There are twice as many fishermen as campers in the United States, but the sport is spread out along thousands of miles of streams and rivers and on hundreds of lakes. Fishing is increasing moderately, 15 to 20 percent per decade (Fish and Wildlife Service, et. al. 1960, 1970). Because fishing often involves many trips to nearby fishing spots, it is likely to be heavily influenced by higher fuel prices and gas shortages.

Hunting is expected to increase moderately even though continued environmental concern and shifts in land use may restrict the land area available for game production and hunting. The problem presents a serious challenge to resource planners and managers. Total hunting population has leveled off in the last 5 years, but some hunters spend more time at the sport (Fish and Wildlife Service, et.al. 1960, 1970). Small game hunting, the most popular type, will show some increase over the next decade. But rapid growth of big game hunting is anticipated--as much as 20 percent more hunters per decade (Demand Task Force, 1972).

Off-road recreation vehicles (ORRV's) are having a greater impact on forest use each year. Detailed data are available for only a few types of such vehicles (Demand Task Force, 1972). Snowmobiles and motorcycles are produced in the largest numbers and therefore will have the greatest impact on National Forests. Snowmobile sales increased sharply during the 1960's but appear to be growing at a slower rate in the early 1970's. Motorcycle, minibike, and trail bike sales rose gradually from about 25,000 units in 1955 to 60,000 units in 1960. With the introduction into the U.S. market of inexpensive, imported, lightweight motorcycles, annual sales leaped to 1.4 million by 1970. The buyers are relatively young. Based on national sales forecasts and present participation rates, use of scooters, motorcycles, and snow craft on National Forest land is likely to nearly double by 2000 (Demand Task Force, 1972). ORRV activity is of course strongly influenced by the availability and price of fuel.

Skiing, a highly social sport, is now enjoyed by 5 million Americans, up 500,000 per year for the last 5 years. Most new skiers are from the far West and the eastern seaboard. Skiers are predominantly a young group. About two-thirds are 30 years old or less and a fifth are 18 years or younger. The typical skier is affluent and well educated. In three regional studies skiers were found to have 25 percent more income than average residents (Leuschner and Herrington, 1971). There has been an increase in the proportion of unmarried and female skiers. And, the average skier skis in his home region--residents of each region account for about 85 percent of the days skied. Only in some States, such as Alaska, Colorado, Utah, Vermont, Montana, Wyoming, and New Hampshire, do nonresident skiers form a significant demand. A 15 to 25 percent increase in skiing per decade is likely to continue on National Forests. The fuel shortage may have only a limited effect on skiing unless gasoline becomes extremely scarce.

Timber

Timber demand is keyed directly and indirectly to new residential construction. Essentially, a new housing unit is required for each new household or family. So the number of new households and the age of family heads strongly influence the number of housing units to be built. In the 1970's households are estimated to grow by 1 million annually, in the 1980's by 1.1 million annually, and the 1990's by 1.2 million annually. In addition, the number of units required to replace those torn down because of urban environmental improvement projects and conversion of residential areas to commercial and those left vacant by declining rural population may rise from .9 million in the 1970's to 1.2 million in the 1990's (Forest Service, 1973c).

The sharp increase in young households in the 1960's brought a corresponding boost in the demand for multifamily units and mobile homes. This trend is expected to continue into the 1980's when demand for more single dwelling units will increase in response to the growing number of families headed by 34-year-old and older persons able to afford single family houses. However, if fuel shortages and high prices persist, demand may shift from single units in distant suburbs to compact townhouse and apartment complexes nearer the cities.

Residential construction in new suburban areas influences many types of nonresidential construction, such as schools, churches, and stores. Other construction, such as offices, factories, and public buildings, is more related to the growth of the economy in general. This is also true for manufacturing and shipping uses. For example, in recent years pallet use has grown rapidly and the trend is expected to continue.

Widespread substitution strongly influences use of panel products. Substitution of softwood plywood for lumber caused rapid rises in plywood consumption in the 1950's and early 1960's (Forest Service, 1973c). Inroads were large in sheathing, subflooring, concrete framework, hardwood paneling, and furniture manufacture. Even though trends in plywood use suggest that most potential substitution for lumber has already taken place, projected growth in construction and manufacturing is large enough to continue increases in plywood consumption.

Demand for timber for pulp and paper manufacture is growing significantly. Part of the rise can be attributed to increasing population and national income. But part is the result of major displacement of other materials, such as lumber, veneer, cooperage, glass, and metals, in many products. Large new markets, such as milk cartons and computer paper, have also greatly expanded consumption, in spite of the increased use of plastics. On the other hand, per capita use of some paper products is leveling off and moving toward a saturation point beyond which there seems to be no prospect of further growth (Forest Service, 1973c).

Demand for roundwood products--cooperage, poles, piling, posts, mine timber--is expected to increase only modestly in coming decades. There is, however, a growing demand for logs for export. By 1972, exports of logs rose to 2.8 billion board feet, chiefly in the form of softwood logs produced in western Washington and Oregon and shipped to Japan. Studies indicate that this market will continue to grow.

On the plus side, technological progress in converting trees to wood products will temper demand for wood raw material. Improvements in utilization--use of slabs, edgings, sawdust, veneer cores, shavings, and other similar material for pulp and other products--will help increase product yield per unit of wood.

All these factors together are estimated to increase consumption of timber from U.S. forests 18 to 32 percent per decade until the year 2000, assuming no great increase in prices (Table 3).

Table 3. Indexes of expected consumption of selected commodity outputs from all ownerships, 1980-2000. (1970 is base of 100.)

	1975	1980	1984	1990	2000
Timber-all	121	138	155	167	198
Softwood	120	136	153	160	183
Hardwood	123	144	159	186	241
Water flow	112	123	135	149	175
Forest-range use	110	120	128	135	150
Energy-all	122	143	172	209	286
Coal	116	131	130	195	255
Copper	122	144	168	207	297

Sources: Forest Service, 1972b, 1973c; U.S. Water Resources Council, 1968; National Petroleum Council, 1972.

Water

Generally, demand for water is met by locally available supplies--except in the extreme Southwest where some interregional transporting is done. There are many local problems of total or seasonal water shortages, and there are times when there is too much water--floods. Nationwide, withdrawals of water from surface and underground sources are increasing about 23 percent per decade. Total withdrawal of water, however, is not a good measure of consumptive use because much of the withdrawal water is returned to the system for reuse downstream (U.S. Water Resour es Council, 1968).

A much better criterion of the drain on water supply is the amount withdrawn and not returned--consumptive use. Agriculture now accounts for 87 percent of such consumption but by 2000 will account for only 62 percent, even though it will still be the largest consumer of water. Other uses are growing rapidly--about 31 percent increase per decade for municipal use, 38 percent for manufacturing, and 47 percent for steam-electric power generation.

The other important use of water is for waste dilution. Needs for dilution flow decrease as improvements in waste treatment are made. Dilution requirements for a treatment level of 70 percent biological oxygen demand (BOD) removal are 20 times as great as dilution requirements for 97 percent treatment (Wollman and Bonem, 1971).

In addition to human needs, there is also an important demand for sufficient quantities of high-quality water to maintain the fish and other aquatic life necessary to a well-balanced forest environment. A special, localized, but important example is the demand for spawning habitat for anadromous fish (fish that migrate from the sea to fresh water to spawn), primarily in the Pacific Northwest and Alaska. Clear, cool water and stable gravel bottoms are necessary to assure survival of the fingerlings.

Range

Demand for range is influenced by such factors as population, per capita meat consumption, total feed requirements, livestock feeding efficiency, feed rations, and world markets. Other important influences are changes in the livestock industry such as shifts in the source of livestock feed among range, pasture, feed grains, and high protein feeds.

Growth in population will continue to expand markets for food. Rising incomes will permit shifts in American diets toward foods of higher cost. For example, per capita beef consumption rose from 90 pounds in 1959-61 to 114 pounds in 1970. Part of the increased demand for beef has been met by increases in feed concentrates, increases in slaughter weight, and the conversion from dairy operations to beef production. However, further increases must be met primarily from increasing the number of beef cattle and, therefore, the need for grazable forage will increase (Forest Service, 1972b).

An additional factor affecting demand for range is the relatively low cost of producing livestock on a range basis compared to other livestock production systems. The future may see a turnaround from today's practices of high-level feeding of carbohydrates, since they may become valuable for direct human consumption. Increased use of forest rangeland could occur as a result.

Forest rangeland can provide additional feeder cattle needed in the next 20 years if range costs do not increase more than the cost of other feed sources. Competition among regions will partly reflect availability of land and relative costs for raising feeder cattle. Forest range will also continue to support substantial domestic production of lamb and wool.

Forest range grazing demands have been projected within economic, social, and political constraints, and the limitations of the environment's productivity. The results show an average rise in grazing on forest-range of 12 percent per decade with the greatest increase (20 percent) in the first 10 years (Forest Service, 1972b).

Mineral and Energy

In 1972 more than 4 billion tons (nearly 20 tons per person) of new minerals were required to sustain our economy (U.S. Department of the Interior, 1973). Supplies of many minerals are growing short. For example, at current use rates known copper resources in the United States will last only 45 years, but demand is expected to rise 80 percent per decade (U.S. Geological Survey, n.d.).

Increasingly the United States must depend on other countries for important metals. We are now importing all of our manganese, chrome, and tin, more than 85 percent of our nickel and aluminum, more than two-thirds of our mercury and zinc, and nearly half of our tungsten (U.S. Department of the Interior, 1973). To reduce our dependence on foreign sources, a massive effort in domestic minerals exploration and development will be necessary. By accident of geography and geology, the National Forests overlie most of our potential nonferrous metal reserves. In a sense, the National Forests of the Rocky, Cascade, Sierra Nevada, and Coast Range Mountains constitute the Nation's storehouse of these metals. So there will be an increasingly greater interest in developing the minerals in our western forests.

More important, the current energy shortage, which is expected to last a decade or more, is directly affecting fossil fuel extraction on forest land. The energy shortage is the result of a growth in total energy demand of 50 to 60 percent per decade coupled with a decreasing rate of oil and gas discovery and production, and lagging coal output (National Petroleum Council, 1972). Furthermore, many power plants and industries have stopped using high sulfur coal in order to clear up the air in our cities. This makes meeting the demand more difficult. Mine capacity for low-sulfur coal is too small, and remaining domestic reserves of oil and natural gas are too limited to take up the slack. Consequently, we are now relying more heavily on imported oil and gas at drastically higher cost. Until the 1972 Mid-East War, the United States imported 30 percent of its oil.

Much greater use of nuclear power would help, but great caution as well as technical difficulties have slowed nuclear projects. Hydro- and geothermal-electric generation are not expected to satisfy much of the increasing demand (many geothermal opportunities are on National Forest land). Clearly, if the United States is not to hazard the serious international economic and political repercussions that attend large-scale importing, we must look to greater use of our own sources of low-sulfur coal, oil, and natural gas. Of the three, only coal has the certain capacity to meet projected demands. Demand for coal is expected to rise 30 percent per decade until the year 2000 (National Petroleum Council, 1972).

Most domestic low-sulfur coal lies in Wyoming, Montana, North Dakota, Colorado, Utah, Arizona, and New Mexico. It has been estimated that the western States will see a six-fold increase in coal production--300 to 350 billion tons by 1985, about two-thirds of present consumption (National Petroleum Council, 1972). A large but still unknown amount underlies the National Forests. But resistance to western coal development is building as environmentalists and surface owners become aware of the potential effects of large-scale surface mining.

Special Uses

Related to the increasing recreation demands is the boom in development and use of second homes and related facilities. Second-home buyers look for clear air, water, climate relief, and esthetics, and they often find them within and adjacent to forests. Establishment of second-home areas generates demands for roads, powerlines, water, and sanitation facilities which have an impact on the Nation's forests.

Increasing energy consumption often requires forest land for electric transmission lines and pipelines. Reservoirs and relocated facilities for water power, irrigation, flood control, and culinary water are other uses for the Nation's forest land.

The increased demands for recreation and commodity products, particularly wood, minerals, and energy fuels, will also greatly accelerate demand for new access over National Forest land as well as for roads serving private ownerships.

ECONOMIC IMPORTANCE OF NATIONAL FOREST AND NATIONAL GRASSLANDS

(1) They produced a cash income in fiscal year 1974 of $485.7 million. Approximately 65 percent of this amount is credited to the general fund in the Federal Treasury (miscellaneous receipts). The remainder is distributed in accordance with special acts of Congress, including 25 percent to the States or counties in which lands are located, and 10 percent made available for construction and maintenance of the Forest Service system of roads and trails. In addition to these cash receipts, there are the even greater economic values which result from the processing of end products derived from this utilization of National Forest timber, forage, and minerals. Recreation, wildlife and water result in important economic activity in local, State, and national economies. There are also important intangible values of water, recreation, and wildlife such as the esthetic enjoyment of natural beauty.

(2) The area within National Forests boundaries is equivalent to some 10 percent of the area of the continental United States. Over 24 percent of this land is within areas now experiencing economic distress. Proper management, development, and utilization of these lands are important factors in permanent improvement of these local economies. Millions of people who live in and near the National Forests are supported in whole or in part through the economic development arising from the forests and their resources. These resources offer a renewable resource base for developing stable prosperous and vigorous local economies and communities.

(3) The National Forests supplied 13.0 billion board feet of timber in fiscal year 1974 to the Nation's forest products industries. This is expected to remain relatively constant at 13.1 billion board feet in 1976. Dependence of the forest products industries on National Forest timber continues to increase as the result of depletion of good quality timber on private lands. In some areas, the dependence of local industry on National Forest timber is almost 100 percent. Without this supply some small communities could not exist.

(4) About 3.12 million head of domestic livestock (mature animals) are grazed on the National Forests and Grasslands. In many local areas this is a major industry. Without such Federal rangelands the economic activity would be drastically curtailed from currently depressed levels.

(5) These lands provide about 390 million acre feet of high quality water annually. The lands also provide protection to municipal water supplies for nearly all western cities and towns and many in the East, to irrigation water used on about 20 million acres of western lands, and to many streams with water power

developments. They provide flood protection to thousands of acres of rich valley lands and help to prevent more rapid siltation of reservoirs and stream channels. A dependable water supply is an important prerequisite for economic and community development.

(6) They provide habitat for a large part of the big game animal population, for birds, for millions of small game animals, furbearers, and for fish. Hunters, fishermen, and appreciative wildlife users (photographers and birdwatchers) constitute an important supplementary source of income for numerous communities, many of which are economically depressed. These lands provide habitat for 58 endangered and threatened fish and wildlife species.

(7) They provide opportunities for healthful outdoor recreation, with a minimum of restrictions. Outdoor recreation is an important source of supplementary income in most areas as well as providing recreational opportunities for local residents. In some relatively depressed communities it becomes even more important.

THE FOREST AND RANGELAND RENEWABLE RESOURCES PLANNING ACT

The Forest and Rangeland Renewable Resources Planning Act (PL 93-378), also referred to as the Resources Planning Act (RPA), was passed August 17, 1974. It calls for long-range planning by the Forest Service to insure that the U.S. has an adequate supply of forest resources in the future, while maintaining the quality of the environment.

The Act contains two major requirements. The Forest Service must periodically submit to Congress a Renewable Resource Assessment and a long-range Renewable Resource Program. Both these documents are due for the first time on December 31, 1975.

Congress has required that the Renewable Resource Assessment must consider all forest, range and related lands in the United States. The first assessment will probably be modeled on past timber outlook reports, but will be expanded to include all forest resources.

The assessment must include:

(1) An analysis of the present and anticipated uses, demand for, and supply of renewable resources, including a consideration of the international resource situation.

(2) An inventory of present and potential renewable resources, and opportunities for improving their yield of goods and services, with estimates of the investment costs and returns to the Federal Government.

(3) A description of Forest Service research and cooperative programs, and the management of the National Forest System, including the relationship of these programs to public and private activities.

(4) A discussion of important policy considerations, laws and other factors which might affect the use, ownership and management of forest, range and related lands.

As mentioned earlier, the first assessment is due December 31, 1975, and is to be updated in 1979, and every ten years thereafter.

The Renewable Resource Program is to be a long-range plan for all Forest Service programs, including the National Forest System, Research and State and Private Forestry efforts.

The program must include:

(1) An inventory of specific needs and opportunities for both public and private program investments.

(2) Specific identification of program outputs and the anticipated results and benefits of Forest Service programs.

(3) A discussion of priorities for accomplishing these opportunities, with specified costs, outputs, results, and benefits.

(4) A detailed study of personnel requirements needed for existing programs.

The first program is due December 31, 1975, and must cover the four-year period beginning October 1, 1976, and at least each of the four fiscal decades following. The program must be updated every five years, always planning at least 45 years ahead.

Since the first program and assessment are due at the end of 1975, the task is being given top priority. A project team is developing both the assessment and the program. The team includes a policy group, an assessment group, a program group, and an external relations group. The project team is being guided by a steering committee chaired by the Deputy Chief for Programs and Legislation. In fiscal year 1975 the work is being accomplished under present manpower and budget ceilings, with Washington office personnel providing most of the manpower, and field personnel being brought in as needed. Additional funds and manpower are proposed for fiscal year 1976 for preparing and submitting the initial assessment and program and developing techniques for acquiring resource data for subsequent assessments.

The first assessment and program are being developed with existing proposals, programs and data sources. The Environmental Program for the Future will provide a starting point for developing the program, and such studies as the Timber Outlook Report will create a foundation for the assessment.

The principles outlined in the National Environmental Policy Act will be utilized in preparing the program, and in informing and involving the public throughout the development process. The six resource systems approach used in EPFF will be used in this program document. The full range of Forest Service responsibilities for the National Forest System, Research, and State and Private Forestry, will be addressed within and across the systems.

The Resources Planning Act has important implications for the budget process. Our fiscal year 1977 budget proposal will relate directly to the first year of the program called for by the Act. The Act will lead to development of a basic framework for development and consideration of annual appropriation requests in relation to the long-term goals and objectives which characterize forest and rangeland resources planning.

IMPLEMENTATION OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Section 19 of the Occupational Safety and Health Act of 1970 (84 Stat. 1590, as amended, and E.O. 11807 of September 28, 1974, require Federal agencies to change their approach to safety.

During fiscal year 1976 the Forest Service plans to design the OSHA inspection system, provide training and monitoring equipment, and implement the first inspections. The system developed for reporting unsafe and unhealthful conditions will also be implemented We will continue to consider on-going needs for:

(1) Personal protective equipment.
(2) Engineering modifications of equipment and facilities which are imminently hazardous.

(3) Signs required by OSHA.
(4) Servicing the medical and first aid program.
(5) Machinery guarding.
(6) Other standards which are in imminent need of correction.

ENVIRONMENTAL IMPACT STATEMENTS

The National Environmental Policy Act of 1969 (Sec. 102) (PL 91-190) requires that all agencies of the Federal Government prepare a detailed statement on the environmental impact, adverse environmental effects, alternatives to the proposal, and other factors for major Federal actions significantly affecting the quality of the human environment. In the preparation of the statement, agencies are required to utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on the environment.

The Forest Service is charged with the management of one-tenth of the Nation's land and many Forest Service activities have an impact on the environment. In the preparation of an environmental impact statement the Forest Service has endorsed the concept of interdisciplinary analysis and has formed local teams of foresters, engineers, landscape architects, geologists, hydrologists, archaeologists, social scientists, and other specialists to examine areas and prepare the statements on plans and projects. The first statement is a draft and it is widely circulated to other Federal agencies, State, and local governmental jurisdictions, environmental special interest groups, and others of the general public that will be impacted or have expressed an interest through contacts with the team as they prepared the statements. All comments and questions received concerning the draft statement are answered in writing and both the comment/question and its answer are included in the final statement. The planned activity will then be conducted in accordance with the findings of the final environmental statement.

The 1976 budget proposes funding increases to conduct environmental analyses, coordinate review and prepare draft and final impact statements on 34 roadless or undeveloped areas containing 1,525,000 acres, which are estimated to contain 1.8 billion board feet of timber. For comparison purposes, this is an area larger than the State of Delaware (1,316,480 acres). These statements are necessary to comply with PL 91-190 and stipulations agreed to in Sierra Club vs Butz, et.al. (Circular No. 72-1455 SC) filed in the San Francisco District Court on December 11, 1972, which requires that an environmental statement be filed with the Council on Environmental Quality before any actions are taken which change the wilderness character of any roadless area listed in the 1971 roadless area inventory. The cost of carrying out this effort averages $65,000 per area.

The $2.2 million increase requested is distributed as follows:

Project No.	Activity	Amount
(1a)	Timber sales administration and management (inventory and plans)	$550,000
(2)	Recreation use	550,000
(3)	Wildlife and fish habitat management	330,000
(4)	Rangeland management	330,000
(5)	Soil and water management	220,000
(6)	Minerals management	220,000

ORGANIZATIONAL STRUCTURE

The Forest Service maintains its central office in Washington with program activities decentralized to 9 regional offices, 123 forest supervisors' offices, 675 district rangers' offices, 2 State and private forestry area offices, 8 forest and range experiment stations, the Institute of Tropical Forestry, and the Forest Products Laboratory. Location of headquarters offices:

Regional offices:
- Missoula, Montana
- Denver, Colorado
- Albuquerque, New Mexico
- Ogden, Utah
- San Francisco, California
- Portland, Oregon
- Atlanta, Georgia
- Milwaukee, Wisconsin
- Juneau, Alaska

State and private forestry area offices:
- Upper Darby, Pennsylvania
- Atlanta, Georgia

Experiment stations:
- Ogden, Utah
- St. Paul, Minnesota
- Upper Darby, Pennsylvania
- Portland, Oregon
- Berkeley, California
- Fort Collins, Colorado
- Asheville, North Carolina
- New Orleans, Louisiana

Forest Products Laboratory: Madison, Wisconsin

Institute of Tropical Forestry: Rio Piedras, Puerto Rico

National Forest, National Grasslands, and Utilization lands administered by the Forest Service are located in all States except the following six:

- Delaware
- Hawaii
- Maryland
- Massachusetts
- New Jersey
- Rhode Island

Summary of Estimated Appropriations and Receipts

Page No.	Item	Available 1974 1/	Estimated available 1975 2/	Budget estimates 1976	Change 1976 over 1975
	Appropriated Funds				
	Forest protection and utilization:				
31	Forest land management 3/	$387,966,000	$304,362,000	$338,297,000	+$33,935,000
95	Forest research	64,785,000	77,612,000	79,211,000	+1,599,000
127	State and private forestry cooperation	28,181,000	29,863,000	30,222,000	+359,000
	Total, Forest protection and utilization	480,932,000	411,837,000	447,730,000	+35,893,000
146	Construction and land acquisition 3/	27,093,000	31,337,000	14,475,000	-16,862,000
164	Forest roads and trails 3/	97,700,000	124,578,000	108,225,000	-16,353,000
179	Acquisition of lands for National Forests, Special Acts	94,000	161,000	161,000	- -
184	Acquisition of lands to complete land exchanges	55,300	39,310	35,410	-3,900
187	Acquisition of lands, Klamath Indians	- -	49,000,000	- -	-49,000,000
144	Cooperative range improvements	700,000	700,000	700,000	- -
189	Assistance to States for tree planting 3/	1,013,000	1,355,000	1,359,000	+4,000
199	Construction and operation of recreation facilities 3/	3,277,838	1,260,000	3,674,000	+2,414,000
217	Youth conservation corps 3/	10,000,000	10,392,000	10,400,000	+8,000
	Permanent Appropriations				
233	Expenses, brush disposal 3/	25,199,361	30,000,000	33,000,000	+3,000,000
232	Roads and trails for States; National Forests Fund	45,468,547	47,003,064	47,975,000	+971,936
234	Licensee Programs 3/	209,432	265,000	250,000	-15,000
236	Restoration of forest lands and improvements 3/	68,205	50,000	50,000	- -
237	Payment to Minnesota (Cook, Lake, and St. Louis Counties) from the National Forests Fund	259,038	259,038	259,038	- -
238	Payments to Counties, National Grasslands	586,381	586,000	586,000	- -
239	Payments to school funds, Arizona and New Mexico	124,307	190,862	191,000	+138
240	Payments to States, National Forests Fund	113,668,668	119,482,282	117,862,000	-1,620,282
	Total	806,449,077	828,495,556	786,932,448	-41,563,108
	Deduct permanent appropriations shown above	185,583,939	197,836,246	200,173,038	+2,336,792
	Total (excluding permanent appropriations)	620,865,138	630,659,310	586,759,410	-43,899,900
	Receipts				
	Timber sales	447,604,898	452,905,000	485,000,000	+32,095,000
	Grazing	6,647,388	6,650,000	7,450,000	+800,000
	Power	265,078	250,000	275,000	+25,000
	Recreation	5,083,778	5,100,000	5,500,000	+400,000
	Land uses	1,247,937	1,400,000	1,600,000	+200,000
	Mineral leases and permits	7,465,684	8,000,000	8,500,000	+500,000
	Admission and user fees	2,060,701	5,500,000	6,000,000	+500,000
	National grasslands and land utilization	2,992,774	3,200,000	3,850,000	+650,000
	Oregon and California grant lands: 4/				
	Timber sales	12,280,074	15,000,000	15,000,000	- -
	Other	35,577	- -	- -	- -
	Total receipts	485,683,889	498,005,000	533,175,000	+35,170,000

1/ Excludes GSA space transfers of $574,000 (Forest land management, $559,000 and Forest research, $15,000). Includes $11.8 million of trust funds used for fighting forest fires repaid in fiscal year 1975.

2/ Includes proposed supplementals for increased pay costs. Excludes proposed supplemental for fighting forest fires, $100 million, and rescission of enacted appropriation pending, $14,921,000 (Forest land management, $10 million, R75-10, and State and private forestry cooperation, $4,921,000, R75-9).

3/ In addition, prior year balances are available.

4/ Account established for Oregon and California railroad grant lands, for which receipts are transferred to Department of the Interior for distribution under the Acts of August 28, 1937, June 24, 1954, and August 3, 1961 (43 USC 1181f-g).

Summary of Estimated Appropriations and Receipts--Transition Period

Item	7/1-9/30/76
Appropriated Funds	
Forest protection and utilization:	
Forest land management	$111,388,000
Forest research	21,550,000
State and private forestry cooperation	9,202,000
Total, Forest protection and utilization	142,140,000
Construction and land acquisition 1/	11,074,000
Assistance to States for tree planting 1/	829,000
Construction and operation of recreation facilities 1/	2,212,000
Youth conservation corps 1/	8,054,000
Permanent Appropriations	
Expenses, brush disposal 1/	9,000,000
Roads and trails for States, National Forests Fund	51,600,000
Licensee Programs 1/	75,000
Restoration of forest lands and improvements 1/	15,000
Payment to Minnesota (Cook, Lake, and St. Louis Counties) from the National Forests Fund	259,000
Payment to Counties, National Grasslands	310,000
Payments to school funds, Arizona and New Mexico	191,000
Payments to States, National Forests Fund	129,000,000
Total	354,759,000
Deduct permanent appropriations shown above	190,450,000
Total (excluding permanent appropriations)	164,309,000
Receipts	
Timber sales	150,000,000
Grazing	500,000
Power	5,000
Recreation	605,000
Land uses	100,000
Mineral leases and permits	1,900,000
Admission and user fees	4,400,000
National grasslands and land utilization	1,240,000
Oregon and California grant lands 2/	4,800,000
Total receipts	163,550,000

1/ In addition, prior year balances are available.

2/ Account established for Oregon and California railroad grant lands, for which receipts are transferred to Department of the Interior for distribution under the Acts of August 28, 1937, June 24, 1954, and August 3, 1961 (43 USC 1181f-g).

JOB CORPS CIVILIAN CONSERVATION CENTERS

(Funds transferred to Forest Service by Department of Labor)

	Available 1974		Estimate 1975		Estimate 1976	
	No. of Permanent Positions	Amount (in thousands)	No. of Permanent Positions	Amount (in thousands)	No. of Permanent Positions	Amount (in thousands)
Center capital	- -	$1,799	- -	$119	- -	$119
Center operations .	788	24,946	735	23,774	735	24,381
Program direction .	76	1,869	80	1,452	80	1,477
Total	864	28,614	815	25,345	815	25,977

NOTE: Fiscal years 1975 and 1976 estimates are based on best information available to the Forest Service as of January 13, 1975.

Consolidated Schedule of Permanent Positions Paid From Funds Available to the Forest Service

	1974 actual	1975 est.	1976 est.
Executive level V	1	1	1
GS-18	4	4	4
GS-17	8	9	9
GS-16	39	39	39
GS-15	184	206	215
GS-14	474	510	510
GS-13	1,329	1,385	1,424
GS-12	2,287	2,348	2,388
GS-11	3,591	3,661	3,729
GS-10	63	61	63
GS-9	3,993	4,025	4,106
GS-8	113	121	126
GS-7	3,252	3,312	3,373
GS-6	922	908	921
GS-5	2,416	2,418	2,472
GS-4	1,745	1,712	1,739
GS-3	538	515	524
GS-2	56	55	63
GS-1	11	8	20
Subtotal	21,026	21,298	21,726
Grades established by act of June 20, 1953 (72 Stat. 213) and act of September 23, 1959 (73 Stat. 651):			
Research forester, $36,000	3	3	3
Forest products technologist, $36,000	1	1	1
Subtotal	4	4	4
Grades established by the Administrator, Agency for International Development:			
FC-12, $29,942 to $36,000	2	3	3
FC-11, $25,451 to $33,570	1	-------	-------
FC-10, $21,816 to $28,359	7	7	7
Subtotal	10	10	10
Ungraded	1,136	1,074	1,180
Total permanent pcsitions	22,176	22,386	22,920
Unfilled positions, June 30	−2,707	−2,781	−2,824
Total permanent employment, end of year	19,469	19,605	20,096

FOREST PROTECTION AND UTILIZATION

	Forest Land Management a/	Forest Research	State and Private Forestry Cooperation	Total
Appropriation, 1975 ...	$314,362,000	$77,612,000	$34,784,000	$426,758,000
Estimate, 1976	338,297,000	79,211,000	30,222,000	447,730,000
Change	+23,935,000	+1,599,000	-4,562,000	+20,972,000
Adjustments to 1975 appropriation:				
Appropriation, 1975 .	306,119,000	75,402,000	34,638,000	416,159,000
Proposed supplemental for pay costs	8,243,000	2,210,000	146,000	10,599,000
Adjusted base for 1976	314,362,000	77,612,000	34,784,000	426,758,000
Estimate, 1976	338,297,000	79,211,000	30,222,000	447,730,000
Change	+23,935,000	+1,599,000	-4,562,000	+20,972,000

a/ In addition, $700,000 is available by transfer from Cooperative Range Improvements.

SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation--dollars in thousands)

1/	Increase or Decrease (-) Pay Costs, GSA Space and Proposed Rescissions	Program	Permanent Full-time Positions	Total 1976 Estimate	Total Permanent Full-time Positions
Forest land management:					
Sales administration and management--Increase is needed for timber sales preparation of 11.858 MMBF ($10,825,000) and for costs associated with roadless area environmental impact statements ($550,000). Added emphasis on sales preparation enables a reduction in harvest administration of $1,216,000.	$1,390	$10,159	193	$98,124	3,824
Reforestation and stand improvement--Increase in program from current estimate, based on Congressional approval of rescission (R75-10), will provide reforestation and stand improvement on an additional 45,050 acres. .	-9,576	+5,000	40	46,686	694
Recreation use--Increase consists of $760,000 for maintenance of sanitary landfills; $782,000 for operation of new pollution abatement facilities; $550,000 for costs of roadless area environmental impact statements; and $343,000 is for landscape and design effort in support of timber sale activities.	573	2,435	34	51,130	1,484

SUMMARY OF INCREASES AND DECREASES--continued
(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)				Total Permanent
	1/ Pay Costs, GSA Space and Proposed Rescissions	Program	Permanent Full-time Positions	Total 1976 Estimate	Full-time Positions
Forest land management--continued					
Wildlife and fish habitat management--Increase consists of $936,000 to protect and enhance threatened and endangered species; $330,000 for costs of roadless area environmental impact statements; and $441,000 for coordination of wildlife biological needs and requirements with timber sale activities.	$194	$1,707	29	$11,360	378
Rangeland management--Increase consists of $330,000 for costs of roadless area environmental impact statements and $74,000 for coordination of rangeland management needs with timber sale activities.	158	404	6	17,732	608
Soil and water management--Increase consists of $220,000 for costs of roadless area environmental impact statements and $178,000 for protection of critical soils and unstable slopes and enhancement of water production in support of timber sale activities.	215	398	6	17,119	545
Minerals management--Increase consists of $2,600,000 to carry out new mining regulations; $220,000 for costs of roadless area environmental impact statements; and $242,000 for coordination of minerals management needs with timber sale activities.	168	3,062	58	6,943	222
Forest fire protection--Increase is for fuel modification and fire prevention in support of the timber sale program.	391	311	4	37,904	1,238
General land management activities--Net increase consists of $1,511,000 to improve the standards of administration of special uses; $1,684,000 for marking land lines and monuments, maintenance of facilities and coordination of special uses needs in support of timber sale activities; $301,000 for maintenance of fire and general purposes facilities required to maintain health and safety; and $471,000 to reimburse the Employees' Compensation Fund. This increase is offset by a decrease of $20,000 for nonrecurring cost of the special Bicentennial and Forestry Centennial booklet.	578	3,947	60	31,509	881
Fighting forest fires	--	--	--	4,275	354
Forest insect and disease control	117	--	--	11,579	225

SUMMARY OF INCREASES AND DECREASES--continued
(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)				Total
	1/ Pay Costs, GSA Space and Proposed Rescissions	Program	Permanent Full-time Positions	Total 1976 Estimate	Permanent Full-time Positions
Forest land management--continued					
Cooperative law enforcement--Increase is to provide sufficient funds to meet contract commitments.	$47	$2,257	- -	$3,936	45
Subtotal, Forest land management	-5,745	29,680	430	338,297	10,498
Forest research:					
Trees and timber management research--Decrease is based on the discontinuation of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.	203	-287	-3	14,451	649
Forest watershed management research--Decrease is based on the discontinuation of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.	55	-1,300	-12	7,282	269
Wildlife, range, and fish habitat research--Net increase consists of: $911,000 to accelerate research to guide implementation of the Endangered Species Act and a decrease of $1,011,000 based on discontinuance of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.	72	-100	-1	5,196	150
Forest recreation research	16	- -	- -	1,267	50
Surface environment and mining ..	34	- -	- -	2,298	6
Fire and atmospheric sciences research	86	- -	- -	8,299	244
Forest insects and disease research	262	- -	- -	18,145	459
Forest products utilization research--Increase will be used to accelerate research on developing an industrially suitable technology for producing a structural particleboard that will be useful as a substitute for sheathing plywood and improving sawmill techniques that are now being applied on a massive scale	169	681	7	11,147	438
Forest engineering research	14	- -	- -	1,643	55
Forest resources evaluation--Increase will be used for preparing and submitting the initial assessment and program, and for developing techniques for acquiring and analyzing resource data for subsequent assessments as required by the Forest and Rangeland Renewable Resources Planning Act (PL 93-378).	125	1,516	15	5,559	182
Forest economics and marketing research	53	-	- -	3,924	137
Subtotal, Forest Research	1,089	510	6	79,211	2,639

SUMMARY OF INCREASES AND DECREASES--continued
(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)				Total
	1/ Pay Costs, GSA Space and Proposed Rescissions	Program	Permanent Full-time Positions	Total 1976 Estimate	Permanent Full-time Positions
State and private forestry cooperation:					
Cooperation in forest fire control--There will be no program level change from current estimates based on Congressional approval of proposed rescission (R75-9).	-4,878	- -	- -	20,257	56
Cooperation in forest tree planting	1	- -	- -	337	4
Cooperation in forest management and processing	15	- -	- -	5,605	31
General forestry assistance--Increase is to protect threatened and endangered species.	100	200	3	4,023	98
Subtotal, State and private forestry cooperation	-4,762	200	3	30,222	189
Total appropriation, Forest Protection and Utilization	-9,418	30,390	439	447,730	13,326

1/ Includes pay costs and GSA space cost increases ($5,503,000) and rescissions now pending for Reforestation and stand improvement ($10 million) and Cooperation in forest fire control ($4,921,000).

PROJECT STATEMENT
(On obligation basis)

Project	1974	1975 Estimate	1976 Estimate	Increase or Decrease: Pay Costs	GSA Space	Program
FOREST LAND MANAGEMENT:						
National Forest protection and management:						
(1) Timber resource management:						
(a) Sales administration and management	$80,857,019	$86,575,000	$98,124,000	$1,335,000	$55,000	$10,159,000
(b) Reforestation and stand improvement	31,408,722 1/	41,262,000	46,686,000	253,000	171,000	5,000,000
(2) Recreation use	44,994,265	48,122,000	51,130,000	542,000	31,000	2,435,000
(3) Wildlife and fish habitat management	8,424,570	9,459,000	11,360,000	164,000	30,000	1,707,000
(4) Rangeland management	15,248,826	17,870,000	18,432,000	158,000	- -	404,000
(5) Soil and water management	14,958,130	16,506,000	17,119,000	176,000	39,000	398,000
(6) Minerals management	3,359,103	3,713,000	6,943,000	168,000	- -	3,062,000
(7) Forest fire protection	36,241,863 2/	37,208,316	37,904,000	337,000	54,000	304,684
(8) General land management activities	25,855,444	26,984,000	31,509,000	564,000	14,000	3,947,000
Subtotal	261,347,942	287,699,316	319,207,000	3,697,000	394,000	27,416,684
Amount advanced from Cooperative Range Improvements	-700,000	-700,000	-700,000	- -	- -	- -
Subtotal, National Forest protection and management	260,647,942	286,999,316	318,507,000	3,697,000	394,000	27,416,684
(9) Fighting forest fires	106,875,000 3/	4,275,000	4,275,000	- -	- -	- -
(10) Forest insect and disease control	14,989,457 2/	14,060,978	11,579,000	82,000	35,000	-2,598,978
(11) Cooperative law enforcement	2,794,727 2/	4,426,684	3,936,000	34,000	13,000	-537,684
Total, Forest Land Management	385,307,126	309,761,978	338,297,000	3,813,000	442,000	24,280,022
FOREST RESEARCH:						
Forest and range management research:						
(12) Trees and timber management research	13,466,991	14,535,000	14,451,000	167,000	36,000	-287,000
(13) Forest watershed management research	6,709,857	8,527,000	7,282,000	45,000	10,000	-1,300,000
(14) Wildlife, range, and fish habitat research	4,566,478	5,224,000	5,196,000	60,000	12,000	-100,000
(15) Forest recreation research	1,466,141	1,251,000	1,267,000	13,000	3,000	- -
(16) Surface environment and mining	1,811,618	2,264,000	2,298,000	26,000	8,000	- -
Subtotal, Forest and range management research	28,021,085	31,801,000	30,494,000	311,000	69,000	1,687,000
Forest protection research:						
(17) Fire and atmospheric sciences research	7,519,115	8,213,000	8,299,000	67,000	19,000	-
(18) Forest insects and disease research	10,710,734	17,883,000	18,145,000	217,000	45,000	- -
Subtotal, Forest protection research	18,229,849	26,096,000	26,444,000	284,000	64,000	- -

PROJECT STATEMENT--continued

(On obligation basis)

Project	1974	1975 Estimate	1976 Estimate	Increase or Decrease: Pay Costs	GSA Space	Program
FOREST RESEARCH--continued						
Forest products and engineering research:						
(19) Forest products utilization research	9,272,918	10,297,000	11,147,000	159,000	10,000	681,000
(20) Forest engineering research	1,739,649	1,629,000	1,643,000	11,000	3,000	- -
Subtotal, Forest products and engineering research	11,012,567	11,926,000	12,790,000	170,000	13,000	681,000
Forest resource economics research:						
(21) Forest resources evaluation	3,707,928	3,918,000	5,559,000	111,000	14,000	1,516,000
(22) Forest economics and marketing research ..	3,740,686	3,871,000	3,924,000	44,000	9,000	- -
Subtotal, Forest resource economics research	7,448,614	7,789,000	9,483,000	155,000	23,000	1,516,000
Total, Forest Research	64,712,115	77,612,000	79,211,000	920,000	169,000	510,000
STATE AND PRIVATE FORESTRY COOPERATION:						
(23) Cooperation in forest fire control	20,063,751	1/ 20,214,000	20,257,000	7,000	36,000	- -
(24) Cooperation in forest tree planting	319,116	336,000	337,000	1,000	- -	- -
(25) Cooperation in forest management and processing	5,025,944	5,590,000	5,605,000	8,000	7,000	- -
(26) General forestry assistance	2,450,012	3,723,000	4,023,000	32,000	68,000	200,000
Total, State and Private Forestry Cooperation	27,858,823	29,863,000	30,222,000	48,000	111,000	200,000
Total obligations or estimate	477,878,064	417,236,978	447,730,000	4,781,000	722,000	24,990,022
Unobligated balance brought forward	-3,391,484	-5,399,978	- -	- -	- -	5,399,978
Unobligated balance carried forward	5,399,978	- -	- -	- -	- -	- -
Unobligated balance lapsing	1,045,900	1/ 14,921,000	- -	- -	- -	-14,921,000
Total available or estimate	480,932,458	426,758,000	447,730,000	4,781,000	722,000	15,469,000
Supplemental appropriations	- -	-10,599,000				
Transfer to General Services Administration for space rental	573,542	- -				
Transfer from other accounts	-11,800,000	- -				
Appropriation or estimate	469,706,000	416,159,000				

1/ Excludes $14,921,000 rescission of enacted appropriation now pending (R75-9 and R75-10).

2/ Includes 1974 unobligated balances carried forward--

Forest fire protection	$6,316
Cooperative law enforcement	2,794,684
Forest insect and disease control	2,598,978
	5,399,978

3/ Excludes proposed supplemental for fighting forest fires, $100 million.

Program and Financing (in thousands of dollars)

Identification code 05-96-1100-0-1-302	19 74 actual	1975 estimate	19 76 estimate
Program by activities:			
Direct program			
1. Forest land management:			
(a) National Forest protection and management ..	254,445	283,009	314,341
(b) Fighting forest fires .	104,744	4,275	4,275
(c) Forest insect and disease control	13,251	13,720	11,537
(d) Cooperative law enforcement	2,436	4,414	3,890
Total forest land management	374,876	305,418	334,043
2. Forest research:			
(a) Forest and range management	26,072	31,829	30,476
(b) Forest protection	16,981	25,704	25,954
(c) Forest products and engineering	10,357	11,955	12,838
(d) Forest resource economics	7,411	7,722	9,400
Total forest research	60,821	77,210	78,668
3. State and private forestry cooperation:			
(a) Forest fire control ...	20,010	20,147	20,190
(b) Forest tree planting ..	271	333	334
(c) Forest management and processing	4,695	5,592	5,607
(d) General forestry assistance	2,114	3,724	4,024
Total State and private forestry cooperation	27,090	29,796	30,155
Total direct program	462,787	412,424	442,866
Reimbursable program			
1. Forest land management	13,206	7,080	7,080
2. Forest research	1,128	2,320	2,320
3. State and private forestry cooperation	569	600	600
Total reimbursable program	14,903	10,000	10,000

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-1100-0-1-302		19 74 actual	19 75 estimate	19 76 estimate
	Program by activities--continued			
	Total program costs, funded 1/	477,690	422,424	452,866
	Change in selected resources (undelivered orders)	15,328	5,513	5,564
10	Total obligations	493,018	427,937	458,430
	Financing:			
	Receipts and reimbursements from:			
11	Federal funds	-11,795	-8,400	-8,400
13	Trust funds	-11,800	.....	.....
14	Non-Federal sources	-3,345	-2,300	-2,300
21	Unobligated balance available, start of year	-3,391	-5,400	.....
24	Unobligated balance available, end of year	5,400	.....	.....
25	Unobligated balance lapsing	1,046		.....
	Budget authority	469,132	411,837	447,730
	Budget authority:			
40	Appropriation	469,706	416,159	447,730
40	Rescission of enacted appropriation now pending	.....	-14,921	.....
41	Transferred to other accounts	-574	.....	.....
43	Appropriation (adjusted)	469,132	401,238	447,730
44.20	Proposed supplemental for civilian pay raises	.....	10,599	.....

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-1100-0-1-302		19 74 actual	1975 estimate	19 76 estimate
	Relation of obligations to outlays:			
71	Obligations incurred, net	466,078	417,237	447,730
72	Obligated balance, start of year	53,745	81,507	70,556
74	Obligated balance, end of year	-81,507	-70,556	-62,957
77	Adjustments in expired accounts	2,549	.....	.....
90	Outlays, excluding pay raise supplemental	440,866	418,500	454,418
91.20	Outlays from civilian pay raise supplemental	.....	9,688	911

1/ Includes capital outlay as follows: 1974, $9,192 thousand; 1975, $12,000 thousand; 1976, $15,000 thousand.

Program and Financing (in thousands of dollars)

Identification code 05-96-1100-1-1-302		1974 actual	1975 estimate	1976 estimate
	Program by activities:			
	Fighting forest fires	.....	$4,000	.....
10	Total (costs--obligations) ..	.....	$4,000	.....
	Financing:			
40	Budget authority (proposed supplemental appropriation) ..	.....	$4,000	.....
	Relation of obligations to outlays:			
71	Obligations incurred, net	.....	$4,000	.....
90	Outlays	.....	$4,000	.....

NOTE The above estimate of $84 million was changed to $100 million on February 1, 1975.

Projects (1) - (8)

GEOGRAPHIC BREAKDOWN OF APPROPRIATION

National Forest Protection and Management

	1975 estimate	1976 estimate	Increase
		(in thousands)	
Alabama	$2,502	$2,776	$274
Alaska	8,800	9,763	963
Arizona	11,596	12,866	1,270
Arkansas	6,848	7,598	750
California	50,684	56,243	5,559
Colorado	11,121	12,339	1,218
District of Columbia	14,559	16,153	1,594
Florida	2,230	2,475	245
Georgia	2,362	2,621	259
Idaho	24,476	27,157	2,681
Illinois	912	1,012	100
Indiana	683	758	75
Kansas	55	61	6
Kentucky	2,000	2,219	219
Louisiana	2,331	2,586	255
Maine	62	69	7
Maryland	126	140	14
Michigan	5,340	5,924	584
Minnesota	5,771	6,403	632
Mississippi	3,165	3,511	346
Missouri	3,442	3,818	376
Montana	18,779	20,836	2,057
Nebraska	328	364	36
Nevada	2,585	2,868	283
New Hampshire	1,568	1,740	172
New Mexico	9,102	10,098	996
New York	24	27	3
North Carolina	3,183	3,532	349
North Dakota	292	324	32
Ohio	663	736	73
Oklahoma	496	550	54
Oregon	36,585	40,591	4,006
Pennsylvania	1,738	1,928	190
Puerto Rico	282	313	31
South Carolina	2,138	2,372	234
South Dakota	2,977	3,303	326
Tennessee	2,110	2,341	231
Texas	2,715	3,012	297
Utah	9,526	10,569	1,043
Vermont	716	794	78
Virginia	3,488	3,870	382
Washington	17,176	19,057	1,881
West Virginia	1,940	2,153	213
Wisconsin	3,289	3,650	361
Wyoming	6,928	7,687	759
Rescission of enacted appropriation pending (R75-10)	10,000	- -	-10,000
Total	297,693	319,207	21,514

Project (1a)

TIMBER RESOURCE MANAGEMENT - Sales administration and management

		Permanent full-time positions
1974	1/ $79,463,000	3,560
1975	86,575,000	3,631
1976	98,124,000	3,824
Change	+11,549,000	+193

A net increase of $11,549,000, with an increase of 193 permanent full-time positions, is proposed as follows:

(1) Increase of $10,825,000 to prepare 11,858 million board feet of timber. Depending on market conditions, approximately 2,000 million board feet would be available for carryover into fiscal year 1977

(2) Increase of $550,000 for costs associated with roadless area environmental impact statements. (See page 13.)

(3) Increase of $1,335,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(4) Increase of $55,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

(5) Decrease of $1,216,000 in harvest administration.

Preparation and Administration

GOAL: To sell that volume of timber determined to be optimum in consideration of all National Forest resource inventories, uses, and values, and in view of economic conditions; and to manage the harvest of National Forest timber so as to protect and enhance the environment and insure proper payment for stumpage.

The demand for timber and the annual timber harvest from the National Forests continues to rise steadily over the longrun but is typically cyclic in the short-run, being quite sensitive to business and building cycles. A rapid change, upward or downward, in the demand for some product. such as lumber and plywood, will result in a quick and sharp fluctuation of prices. Response of industrial production may significantly lag upward price fluctuations because of:

(1) Limitations on mill capacity.
(2) Logging equipment.
(3) Labor force.
(4) Immediately available raw material.

Short run increases in demand must be met by accelerating harvest of standing timber, or by an increase in price. In recent years attempts have been made to dampen or reverse rapid, sharp price increases by placing additional National Forest timber on the market. These efforts have also lagged behind the demand that has already brought about the price increases. Typically the additional timber is purchased by industry at a high price when the demand has already peaked, or nearly so, and product prices have started to fall.

Ideally, the supply of National Forest timber offered to industry should increase prior to an upward swing in demand. This would indicate a need to have a constant supply of timber prepared for sale. Thus the backlog of Federal timber under contract and available to industry would increase to the point where Federal-timber dependent industry could respond to actual or expected rapid increases in demand and price by expanding production to full capacity and yet have reasonable expectations of a continuing supply of timber for future production.

1/ For comparability, log export control ($500,000) is shown under Sales administration and management rather than as appropriated under Reforestation and stand improvement.

In fiscal year 1974, 981 million board feet of timber was prepared for sell, but was withheld from offering and placed in reserve because of the injunction issued by the United States District Court for the District of Columbia. By the close of fiscal year 1975 some 900 million board feet of this timber will either have been retained in reserve or have been replaced in reserve by an equivalent volume of fully prepared timber sales. In addition, during 1975 other sale volumes which are prepared and cannot be sold after advertisement will be added to the reserve volumes. If, due to the national economic recession, a decreased demand for National Forest timber develops during fiscal year 1976, timber prepared for sale but not in demand would be added to reserve volumes. Under these conditions, the objective is to have 2 billion board feet of timber available to offer for sale to industry quickly whenever a sudden, rapid increase in timber demand is anticipated.

To meet expected demands in fiscal year 1976 and subsequent years, both the timber sale preparation program and concurrent construction of the necessary transportation system should be expanded at a steady rate, approaching potential sustained yield capacity on a planned, financed, fully-staffed basis. This is reflected in the 1976 program.

The total program for fiscal year 1976, compared with 1974 and 1975, follows:

	1974	1975	1976	Change
		(in thousands)		
Sale preparation	$40,031	$43,808	$55,624	+$11,816
Harvest administration	30,506	32,522	31,636	-886
Enforcement of log export and substitution	500	710	710	- -
Subtotal, preparation and harvest	71,037	77,040	87,970	+10,930
Timber inventory and stand management control	5,358	5,701	5,147	-554
Silviculture examination	2,672	3,834	5,007	+1,173
Timber salvage of tussock moth infested area	396	- -	- -	- -
Total	79,463	86,575	98,124	+11,549

The Forest Service timber sale offerings program in fiscal year 1975 and subsequent years is geared towards increasing and maintaining its capacity to prepare, sell, and administer increasing timber volumes, within the constraints of the potential sustained yield capacity of the commercial forest land. Normally, the process of preparing a block of timber for sell spans a 3-5 year period. The process is becoming more complex and costly in terms of both manpower requirements and funding. The "easy" timber has been harvested in the past. Today and in the future timber must come from the more difficult terrain where expensive, advance road construction is required to provide access to the timber. Substantial infusions of Federal capital investment in the transportation system are needed several years in advance of the time of timber harvest. Failure to provide these funds consistently and currently will result in sharp decreases in future National Forest timber sell offerings. Past shortages are beginning to critically affect timber sale offerings on some National Forests where it is doubtful that the current level of sale offerings can be continued.

The move into the more difficult terrain to obtain timber increases the costs of sale preparation. Sale layout becomes more complex as it is necessary to use skyline or cable systems, or balloon and helicopter systems for harvesting timber. Slopes are steep, some highly productive soils are quite sensitive to mechanical disturbance or compaction, prevention of erosion requires great care in the layout of harvesting patterns, streams and watersheds must be protected, design of harvesting patterns must accommodate and enhance wildlife habitat needs and esthetic considerations. All these, and more, require many skills and professions applied in liberal amounts, well in advance of offering the timber for sale.

Workload and cost information is shown in the following tabulation for fiscal years 1974, 1975, and 1976:

	1974 [1]	1975	1976
Sale preparation			
Million board feet (local scale)	11,937[2]	11,559	[4]11,858
Cost per thousand board feet	$3.35	$3.79	$4.69
Total cost (in thousands)	$40,031	$43,808	$55,624
Harvest administration			
Expected harvest level in million board feet (local scale)	10,950[3]	10,600	11,000
Total cost (in thousands)	$30,506	$32,522	$31,636

Demand and prices were at record-setting levels in late fiscal year 1974. For example, the average bid price for West Side Douglas-fir sold during the third quarter of fiscal year 1974 was $204.12 per MBF, up 86 percent trom the $109.82 figure posted during the third quarter of fiscal year 1973.

For the immediate short term, however, the demand outlook for forest products is mixed, caused by high interest rates and short money supply. Housing starts for calendar year 1974 dropped below the 1972-1973 level, with a resultant drop in demand for lumber and plywood. In contrast, the long-term outlook is for shortages of both lumber and paper products, beginning, probably in late fiscal year 1976. In such an event, there will be considerable pressure to maintain and increase National Forest offerings.

While current demand has fallen off for lumber and plywood products and seems to be trending lower, a decided increase in demand for raw material for pulp and paper developed during fiscal year 1974. Worldwide, demand has exceeded output and has resulted in a considerable increase in export of pulp and paper products from the United States. For a number of years production capacity of pulp and paper products has remained fairly static in the United States. Recently, expanded production at existing mills, as well as proposed new plant construction, has been announced by the industry. As a result, a considerably increased volume of fiber material is being requested from the National Forests, wherever a supply is available within the harvesting range of existing or planned mills.

Salvage of mortality merits very high consideration for funding and management direction annually. Salvage sales generally cost considerably more to prepare and administer than other sales.

More environmental constraints are being demanded by the public on National Forest lands. As a result, support funding in other resource activities is increasing to develop and protect the interrelated uses with timber harvest. Timber sale layout and road location of a long-term sale in Alaska was a cooperative responsibility with the purchaser when sold in the 1950's, but now the Forest Service must assume responsibility for this work. Environmental constraints have been reflected in further intensification of timber management, improved administration and supervision, achievement of quality harvesting, increased public involvement, land use planning, and environmental impact statements.

1/ Excludes supplemental funds of $396,000 received in fiscal year 1974 to prepare for sale timber from areas damaged by tussock moth in the Pacific Northwest.

2/ Preliminary data includes 375 million board feet of timber prepared and released for harvest on existing long-term sales in Alaska, 47 million board feet of fire killed timber prepared and added to existing sales, 321 million board feet offered for sale but received no bids, and 981 million board feet prepared for sell but withheld from offering because of the injunction issued in the United States District Court for the District of Columbia.

3/ Preliminary data.

4/ This includes one target for volumes which are chargeable against the allowable harvest and one target for nonchargeable volumes.

Returns to the Treasury from the harvest of National Forest timber are summarized in the following tabulation:

Fiscal Year	Receipts (in millions)
1969	$306.8
1970	283.9
1971	217.0
1972	330.0
1973	446.7 1/
1974	459.9 1/
1975	460.0 1/ (estimated)
1976	500.0 (estimated)

1/ Excludes $7.9 million of timber receipts in fiscal years 1973 and 1974 which were not credited to the National Forests Fund until fiscal year 1975 due to action pending on land exchange offer executed by the Fibreboard Corporation.

National Forest Timber Inventory and Plans

GOAL: To provide timber resource information for overall land-use planning and to plan the orderly development of timber production on the National Forests. A specific objective is to develop the capability for annual updating of timber management plans. To increase the growth rate and product quality of timber growing on the National Forests to the levels consistent with maintenance of environmental quality, multiple resource use objectives, and total social and economic benefits and costs.

Within current levels of forest management on the National Forests, available supplies of timber are considerably below yields attained in fully stocked natural stands, and much less than yields attainable with intensive practices. Both technical opportunities for increasing yields and economic returns from investments in intensified management vary widely from stand to stand and place to place depending on a variety of factors. Differences in treatment opportunities stem in part from site and stand conditions. Stocking, species composition, tree diameter distribution, and regeneration requirements also vary widely in different stands and directly affect management opportunities. Additional factors of accessibility and operability of forest areas and nature of available markets also influence the economic feasibility of intensified management. In many cases the necessity of modifying timber management to enhance environmental protection and to maintain recreation, wildlife, and esthetic values increases management costs or reduces amounts of timber growth available for harvest.

The Forest Service report The Outlook for Timber in the United States projects that demands on National Forests for timber products by the year 2000 will far exceed supply at current levels of management and 1970 price levels. The same conclusion was reported in the Report of the President's Advisory Panel on Timber and the Environment and the report Timber: The Renewable Material, which was prepared for the National Commission on Materials Policy.

Application of intensified management is needed now to meet future supply needs. The foundation of all such management intensification efforts starts with adequate, timely inventories of the timber resource and expands to intensive, individual stand examination by qualified silviculturists and professionalists in supporting fields of wildlife biology, soils, geology, landscape management, economics, logging, and engineering.

Forestwide timber management plans are prepared from the forest inventories, and stand prescriptions are made following the detailed examination of each stand. A complex, detailed record of appropriate data statistics is maintained for each stand, compartment, and forest. Stand needs identified by the stand silvicultural examination are met by timber harvesting, reforestation, or timber stand improvement measures. The growth potential of each stand and the forest are identified and prescribed for thorough planned subsequent actions. Results are measured and recorded throughout the life of the stand through recurring inventories and stand examination. Currently, inventories are done on a 10-year recurring cycle.

Changes take place rapidly in growing stands of timber through application of harvesting and timber stand improvement measures, and the effects of insects, disease, and natural and man-caused calamities. As a minimum, each stand should be reexamined every ten years to measure the change and to prescribe for future needs, such as timber harvest, reforestation, or stand improvement.

Current program levels are adequate only for a 10-year inventory cycle and stand silvicultural examination of 3,505,000 acres annually, which is only 38 percent of the desired 9,190,000 acres annual program.

Examples of Recent Accomplishments

The record of timber harvested and sold during the past 5 years is compared with the allowable harvest in the following table:

Fiscal Year	Annual Allowable Harvest 1/	Actual Volume Harvested	Percent of Allowable Actually Harvested	Actual Volume Sold 2/	Percent of Allowable Actually Sold
	(Volumes in billion board feet, local scale)				
1970	13.5	11.5	85	13.4	99
1971	13.7	10.3	75	10.6	77
1972	13.6	11.7	86	10.3	76
1973	13.6	12.4	91	10.2	75
1974	13.6	11.0 3/	81	10.2 3/	75

1/ As of the January 1 midpoint of the fiscal year. Includes sawtimber and small (convertible) products.

2/ There are additional volumes prepared and released for harvest on long-term sales in Alaska. Also, there were additional volumes offered for sale for which there were no bids.

3/ Preliminary data.

Project (1b)

TIMBER RESOURCE MANAGEMENT - Reforestation and Stand Improvement

		Permanent full-time positions
1974	1/ $33,331,000	712
1975	51,262,000	654
1976	46,686,000	694
Change	-4,576,000	+40

A net decrease of $4,576,000 is proposed, with an increase of 40 permanent full-time positions, as follows:

(1) Increase of $253,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(2) Increase of $171,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

(3) Decrease of $5,000,000 in funds appropriated. However, the program level proposed in 1976 is $5,000,000 greater than 1975 since $10,000,000 of the funds appropriated in 1975 are proposed to be rescinded.

The program for fiscal year 1976, compared with 1974 and 1975, follows:

	1974	1975	1976	Change
		(in thousands)		
Reforestation	$19,651	$23,548	$28,712	+$5,164
Timber stand improvement	11,635	12,911	14,688	+1,777
Genetic tree improvement	1,680	2,348	2,571	+223
Nursery operation and development	365	2,455	715	-1,740
Proposed rescission (R75-10)	- -	10,000	- -	-10,000
Total	33,331	51,262	46,686	-4,576

GOAL: To increase the growth rate and product quality of timber growing on the National Forests to the levels consistent with maintenance of environmental quality, multiple resource use objectives, and total social and economic benefits and costs.

The output of all products and services of the National Forests, including timber products, can be increased materially in the next decade at costs commensurate with benefits. Greater investments of capital, labor, and materials will be needed along with improved, intensified quality management. The remainder of the 1970's is a crucial time for action to insure future timber supply. The harvesting of presently standing timber, both old growth and young growth, will continue to be important for a few decades; but, increasingly, harvest will consist of wood grown after 1975. For the long run, 2020 and beyond, it is timber growth which is all important; and available timber volume in those decades depends upon measures to increase growth taken in the 1970's and 1980's.

Increased timber production on areas suitable for treatment can be achieved by a variety of measures, including accelerated regeneration, stand improvement, commercial thinning, fertilization, genetic tree improvement, improved harvesting practices and utilization, and intensified protection.

After harvest, fire, windthrow, disease or insect kill, the salvageable timber is removed and the area regenerated by natural or artificial means. Where available and appropriate, genetically improved seedlings are planted. When such seedlings are used, both economics and silviculture normally dictate thinnings and intermediate selective cutting and final harvest by clearcutting. Precommercial and commercial thinnings, application of fertilizers, and control of insect pest and diseases are

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1/ For comparability, log export control ($500,000) is shown under Sales administration and management, rather than as appropriated under Reforestation and stand improvement.

measures for increasing the growth and development of trees. Following forestwide organization of stands by age classes, prompt harvesting at maturity, together with immediate regeneration with a new stand before weeds and shrubs take over the site, is always desirable and often essential for success.

A comparison of proposed fiscal year 1976 outputs with fiscal years 1974 and 1975 follows:

	1974	1975 (estimate)	1976 (estimate)
Reforestation (acres)	131,691	171,709	191,255
Timber stand improvement (acres)	162,141	183,055	208,559
Genetic tree improvement (acres of seed orchards)	1,631	1,631	1,631
Nursery operation and development (no. of nurseries)	12	11	11

Through the use of Multiploy, a new technique for analyzing investments in growing timber, the Forest Service is selecting sites that have the highest potential for growth and other returns and show the most cost effectiveness.

The only source of lumber and plywood during the 1970's and 1980's will be from trees of merchantable size now standing. Growth of additional wood on these trees, growth of wood on smaller trees now standing, and growth of trees to be seeded or planted during the decade, may all add to the annual timber growth rate. This could increase the current programed allowable harvest rate on forests with a surplus of old-growth timber, even though none of the above young and new trees would be cut during that period.

The proposed reforestation and stand improvement program will contribute to the long-range goal of improving the total net growth and sustainable harvest volume on the National Forests. Growth resulting from this program will not only help to offset the decrease in available yield brought about by changes in land use but will also help to raise both the short-term and long-term sustainable harvests from National Forests. The long-range increase in yield (by the year 2000) from the fiscal year 1976 program will exceed 105 million board feet annually.

The Supplemental National Forest Reforestation Fund Act of September 18, 1972 (86 Stat. 678) established the interest of Congress in reforestation of National Forest lands and requires an annual report of need; 3.3 million acres were so reported in 1974. Planting and seeding the existing 3.3 million acres needing reforestation, plus a substantial increase in intensive silvicultural treatments such as thinning, fertilization, and genetics, will enable the National Forests to sustain timber production on a high level. There are 9 million acres of land in a backlog needing stand improvement. In addition, the timber harvesting program produces a recurring stand improvement need with a magnitude of 200 to 250 thousand acres yearly.

Reforestation of 3.3 million acres at a rate of 200,000 acres per year would be completed in about 17 years. This does not allow for annual losses to fire, insects, and blowdown, which adds to the acres needing treatment. It is estimated that a continuing series of programs of intensified management which includes stand improvement and fertilization would provide an additional 1.6 billion board feet by 1980 and as much as 13 billion board feet by 2020. The 13 billion board feet is more than the amount currently harvested in a year from the National Forests.

There are several constraints on the reforestation program:

(1) Shortage of suitable seed or nursery stock. Adequate funding of programs to assure seed and nursery stock is vital. At present we are developing nursery capacity and methods of growing seedlings in a controlled environment similar to a greenhouse. Seedlings can be produced in this way in as little as 6 months.

(2) Restrictions on use of pesticides such as 2,4,5-T and rodenticides. This restriction complicates site preparation, protection and release of growing stock.

Examples of recent accomplishments

Reforestation. With appropriated funds, an area of 112,274 acres of National Forest land was reforested in 1974--98,227 by planting and 14,047 by seeding. In addition, 19,417 acres of plantations were established by preparing the ground to promote regeneration from natural seedfall. Other reforestation accomplishments in 1974 include:

(1) Forest Service seed extractories processed 28,382 pounds of seed.

(2) Production of 106.6 million trees in 12 Forest Service nurseries.

(3) Establishment of 15 acres of new seed production areas and 119 acres of new seed orchards. About 24.7 thousand acres were planted with seedlings grown from the better quality seed produced in seed orchards or seed production areas.

Reforestation with funds collected under the Knutson-Vandenberg Act. The following reforestation was in addition to reforestation done with appropriated funds:

	Acres
Tree planting	142,655
Seeding	15,266
Reforestation by natural seed-fall on prepared sites	62,441
	220,362

An additional 9,004 acres of National Forest land were reforested by other Federal and cooperative programs.

The total area reforested where some treatment such as planting, seeding, or site preparation was applied in 1974 was 361,057 acres.

Timber stand improvement. An area of 162,141 acres was treated by the following cultural measures with appropriated funds in 1974:

	Acres
Thinning	112,071
Release	48,935
Pruning	997
Fertilizing	138
	162,141

Timber stand improvement was also done for the same purpose with Knutson-Vandenberg funds on the following acreage in 1974:

	Acres
Thinning	137,236
Release	43,135
Pruning	470
Fertilizing	70
	180,911

In addition, 4,694 acres of timber stand improvement was accomplished with other Federal or cooperative funds.

Project (2)

RECREATION USE

		Permanent full-time positions
1974	$44,603,000	1,451
1975	48,122,000	1,450
1976	51,130,000	1,484
Change	+3,008,000	+34

An increase of $3,008,000, with an increase of 34 permanent full-time positions is proposed as follows:

(1) For maintenance of sanitary landfills, $760,000.

(2) For operation of new pollution abatement facilities, $782,000.

(3) For costs of roadless area environmental impact statements, $550,000. (See page 13.)

(4) For landscape and design effort in support of timber sale activities, $343,000.

(5) To provide for the full year costs of the pay increase effective in fiscal year 1975, $542,000.

(6) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $31,000.

The following tabulation shows the total planned financing for 1976 as compared with funds available in 1974 and 1975 (in thousands):

	FY 1974	FY 1975	FY 1976	Change
Administration of concessions and recreation use permits	$1,630	$1,730	$1,750	+$20
Operation and maintenance	34,860	37,892	40,228	+2,336
Planning and inventories	1,318	1,400	1,972	+572
Wilderness administration	3,015	3,200	3,235	+35
Visitor Information Service	3,780	3,900	3,945	+45
Total	44,603	48,122	51,130	+3,008

GOAL: Based on the needs and desires of the Nation's people, provide for an estimated 209.5 million visitor-days of quality outdoor recreation on the National Forest System lands.

Through programs of planning, operation, maintenance, enhancement, managed use, and visitor contact, coordinate recreation use with the multi-demands on the National Forest System, keeping it consistent with the land's capacity, user-safety, and basic resource protection.

Through properly planned and executed landscape management programs, insure that all National Forest System uses are designed to recognize and retain or enhance, when possible, the visual resource.

The Forest Service mission is to manage the recreation resources on National Forest lands to best serve the steadily increasing numbers of Americans seeking inspiration, enjoyment, and relaxation in the outdoors. Outdoor recreation opportunities and attractions include improvements from family picnic areas to internationally known ski areas and natural features from trout streams to vast wilderness tracts.

National Forest recreation is characterized by the trails, streams, woodlands, and natural environment of the forest and wild lands. Additionally, there is a diversity

of facilities for camping, picnicking, boating, swimming, hiking, winter sports, interpretation, and service. The Forest Service maintains:

Developed camp and picnic family units	107,000
Swimming areas	322
Boating sites	857
Interpretive sites	458

The Service also administers permits to private individuals and groups covering:

Recreation residences	19,000
Winter sports areas	216
Organization camps	558
Lodges and resorts	370

Other recreation attractions of the National Forest System include:

National Recreation Areas	6
National Scenic Trails	2
Wild and Scenic Rivers	7
Wildernesses and Primitive Areas (million acres)	15
Roads and trails (miles)	321,000
Fishing streams (miles)	83,000
Lakes and reservoirs (million acres)	2.7

On-going Programs

Twenty percent, or more than 40 million visitor-days, of National Forest recreation use will take place at the more than 6,400 Forest Service developed campgrounds. An additional 5 percent, or 10 million visitor-days of use, will take place at other Forest Service developed sites. The private sector through concession operations will provide more than 25 million additional public recreation visitor-days of use, or about 15 percent of all recreation use on the National Forests.

Many actions have and will be taken within this program level to make better use of available funds. For example, some camp and picnic areas with high operating costs and low use are identified and closed when reasonable alternative sites are available.

Additionally, season of use has been adjusted on thousands of sites to assure availability during higher demand periods.

Maintenance will be provided to assure that all essential safety, sanitation and minimum user control at open sites can be accomplished.

In response to the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) and Executive Orders 11507 and 11752, solid waste and sewage treatment facilities costing in excess of $50 million have been installed. The proposed increase of $1,542,000 will provide additional funds for the annual operation and maintenance costs of these recently completed facilities.

The remaining proposed increases will strengthen recreation resource input into environmental statements covering major Federal actions ($550,000), and provide landscape management and design services ($343,000) for a variety of high priority resource development activities, e.g., timber harvests and road building.

Landscape management efforts will allow development of procedural and technical instructions and continued training of all National Forest land managers. This will help to insure that commodity uses are planned and administered in a way consistent with the environmental and ecological integrity of the landscapes involved. In addition to timber harvest, the program will allow application of visual management to the most critical and controversial visual impacts of range vegetation, utility construction, and fire management activities. This program is supported by a cadre of specially trained landscape architects who participate in interdisciplinary multiple use planning and project design.

Sixty percent, or over 120 million visitor-days, of recreation use on National Forests occurs in dispersed areas--that is, away from camp and picnic grounds, ski areas, or similar developments. Management attention will be given to:

	Million Visitor-Days
Dispersed camping	15.0
Hiking and nature study	7.5
Boating	4.0
Off-road vehicles	6.5
Hunting and fishing	30.0

Similarly, use conditions at National Recreation Areas (NRAs) are changing, and management plans for three of the six National Forest NRAs will be finished, as will the one remaining plan for the eight wild and scenic rivers. These plans are vital to facilitate outdoor recreation activities which meet human needs but do not require large expenditures of money or fossil fuel by users, thereby complementing several national priorities.

Visitor Information Service will stress efforts to:

(1) Help the National Forest visitor understand and appreciate the forest environment so that he may come to the self-realization of his dependency upon the wise use of natural resources and to assure a quality of life experience for present and future Americans.

(2) Enrich the experience of visitors to the National Forests and Forest Service facilities by providing forest orientation services and by interpreting the local human history, natural history, and natural resources.

Fiscal year 1976 funds will continue visitor information services without sacrificing quality. Special efforts will be made to extend public service by utilizing unstaffed services, such as selfguiding interpretive trails and auto tours, interpretive signs, wayside exhibits, and automatic message repeaters, at the 458 interpretive sites in the National Forest System and at other Forest Service facilities.

New Program Dimensions

Total recreation use of the National Forests is increasing at a rate of 5 to 6 million visitor-days per year. Maintaining quality resource opportunities requires innovative approaches and public cooperation.

For example, the PYT Campaign (Pack-your-trash) will be expanded to include more of the smaller sites, those that are lightly used, and those in remote areas where collection costs are high. Further, an intensive program of preventative law enforcement, including training of Forest Service personnel and cooperation with local authorities, will be accomplished in the most critical areas.

Public Law 92-500 and E.O. 11752 reflect increased public concern for high water quality standards. Positive response to these new National priorities will require reassessment of investment and manpower allocations. Violating facilities or sites which cannot be economically corrected will be closed.

A National annual increase in skiing of about 15 percent requires analysis and review of new National Forest areas to provide, with the assistance of the private sector, additional skiing opportunities.

Development of the National Forests for commodity purposes has generally moved from the lower elevation and more accessible areas to those presenting more difficult and challenging resource problems. Many of these areas represent physical and biological limitations closer to the threshold of technological skill in designing access and commodity activities, e.g., timber harvest. The best interdisciplinary skills are being focused on these areas to assure no opportunity for compatible recreation use is foregone nor any visual resource value unnecessarily compromised. Although this effort detracts from other desirable but deferrable projects, it recognizes the irretrievable nature of consequences in these complex resource situations.

Planning for management of recreational use by off-road vehicles (required by Executive Order 11644) will be finished on 559 planning units and, along with 124 previously completed plans, will guide this activity on the entire National Forest System. Planned implementation on all 155 National Forests by December 31, 1976, will require enforcement of regulations covered by this funding.

This budget permits finishing intensive wilderness reviews of 16 additional New Wilderness Study Areas (NSAs), bringing accomplishment to 52 NSAs completed of the proposed 274 selected to be done. Reviews of an additional 19 NSAs are to be initiated--117 will have been started, or 42.7 percent of the total needed.

Funding is included in this budget for the protection of archeological and historical resources (Executive Order 11593).

Project (3)

WILDLIFE AND FISH HABITAT MANAGEMENT

		Permanent full-time positions
1974	$8,694,000	337
1975	9,459,000	349
1976	11,360,000	378
Change	+1,901,000	+29

An increase of $1,901,000, with an increase of 29 permanent full-time positions, is proposed as follows:

(1) For coordination of wildlife biological needs and requirements with timber sale activities, $441,000.

(2) To protect and enhance threatened and endangered species, $936,000.

(3) For costs of roadless area environmental impact statements, $330,000. (See page 13.)

(4) To provide for the full year costs of the pay increase effective in fiscal year 1975, $164,000.

(5) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $30,000.

The planned level of financing for fiscal year 1976, as compared with 1974 and 1975, follows (in thousands):

	1974	1975	1976	Change
Recurrent work	$4,617	$5,269	$6,145	+$876
Habitat restoration and development	3,174	3,257	3,315	+58
Endangered and other threatened species	903	933	1,900	+967
Total	8,694	9,459	11,360	+1,901

GOAL: Develop and maintain, in cooperation with the States and in harmony with the natural environment and with other uses of the land, a pattern of wildlife and fish habitats on National Forest and National Grassland areas that will best meet the needs of people now and in the future.

Give special attention to the environmental needs of threatened and endangered wildlife and fish species, and to those species which are dependent upon National Forest and National Grassland habitat for the greater part of their range.

Scope of Program

The forest and rangelands of the National Forests and Grasslands provide habitat for big game, small game, waterfowl, fish, and space for nonconsumptive wildlife enjoyment. Rare and endangered species are provided protection and sanctuary on National Forest lands. The projected socio-economic characteristics indicate a rising demand for National Forest centered wildlife-oriented recreation.

The quality of the habitat and the consequent extent of wildlife populations is influenced by forest management practices related to the harvest of timber, grazing of livestock, control of plants and vegetation, and the introduction of species.

The quality of hunting and fishing opportunities offered on National Forest lands is dependent on species of game available, game population density, hunter or fisherman density, and esthetics of the habitat. Levels of use are not established by the Forest Service, but by the regulations promulgated by the States.

Inherently, National Forest areas are strongholds of environmental features that provide the proper living and breeding conditions for a variety of animals and fish.

Wildlife and fish habitat on National Forest land is managed in cooperation with the State Conservation Departments, as well as with the Bureau of Sport Fisheries and Wildlife, Bureau of Land Management, and other Federal agencies. State Conservation Departments are responsible for protecting wildlife and regulating the harvest of fish and game populations. The National Forest System has the primary responsibility for fish and wildlife habitat on the land it manages.

There is a need to continue the intensified recurrent work segment of this program which includes the coordination of wildlife and fish habitat needs into timber management, road construction, and other development activities. This is especially cogent when considering the Forest Service program of accelerated timber management which must be instituted to help meet the national need for wood products. To fully develop the opportunities of wildlife and fish habitat management through other resource programs, it is essential that the wildlife resource needs for both game and nongame species be coordinated into the planning, execution, and followup phases of Forest Service developmental programs.

Current inventories have identified numerous opportunities for improving fish and wildlife habitat conditions on National Forest lands. There is a need for surveys and plans on over 45 million acres of big game range and 43 million acres of small game and nongame species habitat. Habitat improvement would benefit 70,000 acres of streams and 88,000 acres of lakes. Wetland improvements could provide 106,000 acres of shallow water impoundments and food plantings and over 80,000 pothole and nesting facilities for waterfowl.

Upland game management opportunities include 5.7 million acres of food and cover improvement, and nearly 15,000 watering facilities. Protecting key wildlife areas requires an estimated 6,500 miles of fencing.

Management and protection of the habitat for 58 endangered and other threatened wildlife and fish species found on or adjacent to National Forest System lands is of highest priority. The Forest Service land management program seeks increased protection, management, and survival of these species through habitat enhancement and maintenance. Quality habitat conditions are needed to insure survival and continued increases in the population status of these species.

Fiscal year 1976 program provides for wildlife and fish habitat improvement as follows:

Land treated in which wildlife habitat coordination was planned and used (thousand acres)	5,127.0
Direct habitat development	173.6

Use

"Appreciative" use of wildlife through bird and animal watching, photography, nature walks, and generally observing all forms of wildlife and fish, including endangered and threatened species, is a rapidly growing visitor activity on National Forests. In 1974, about 17.5 million visitor-days of appreciative wildlife use occurred on Forest Service land. 1/

National Forest land and water accommodated 14,232,000 hunter and 15,761,000 fishing visitor-days in 1974. 2/ Although comprising less than one-twelfth of the Nation's total area, this land accounts for nearly one-fourth of the annual big game harvest. The 83,000 miles of forest streams, 1.8 million acres of natural lakes and 880,000 acres of reservoirs provide excellent habitat for many species of fish. The annual value of commercial salmon catch for fish spawned in waters within National Forests, but caught in off-shore saltwater, is estimated at $31 million.

1/ The visitor-day is a unit of measure amounting to 12 hours.

2/ Days use-- calculated from visitor-days use reports, using the following conversions:

(a) Each hunter averages 5 hours of hunting time per day.
(b) Each freshwater fisherman averages 4 hours of fishing per day.
(c) Each bird watcher/photographer is estimated to spend 4 hours per day.

Estimated user expenditures for wildlife-oriented activities on the National Forests for fiscal year 1974 are as follows:

	Days Use 2/	User Expenditures 1/
		(in millions)
Appreciative (bird watching, photography) ..	17.5	$87
Hunting	34.0	410
Fishing	38.0	317

Legislative Impacts

Public Law 93-452 of October 18, 1974, (88 Stat. 1369) an Act to extend and expand the authority for carrying out conservation and rehabilitation programs on certain public lands, will help the Forest Service and States strengthen and implement wildlife programs.

Title II directs the Secretaries of Agriculture and the Interior in cooperation with State agencies to plan, develop, maintain, and coordinate programs for the conservation and rehabilitation of wildlife, fish, and game on Federal lands under their respective jurisdictions.

The objectives of Title II with respect to the National Forests are:

(1) It creates a statutory requirement that the Forest Service develop a comprehensive plan, in consultation with each State wildlife agency, for wildlife conservation and rehabilitation programs to be conducted on the National Forests within each State. This will involve reviewing existing land use and wildlife management plans of the individual National Forests in a State and blending the respective wildlife plans into one comprehensive plan. Such plans could be of benefit to the Forest Service, and presumably would be of benefit to the State agencies. The plans will be useful in establishing a basis for cooperative agreements and planned development of wildlife habitat resources.

(2) It would provide statutory reinforcement of the Forest Service-State wildlife agency cooperative agreement arrangements.

(3) I provides for a program of habitat improvement that would enhance wildlife resources on selected areas, consistent with overall land use and management plans for the area.

Numerous opportunities exist for cooperative proposals with the States for habitat restoration and development on National Forest System lands. Direct wildlife and fish habitat improvement programs with the States are in accord with the existing long-term cooperative agreements made with the various State conservation agencies. Under these existing agreements, the States have contributed a substantial share of the cost of habitat and fishing water improvements. In 1973 (most current available data) the States financed 35 percent of the habitat work on the National Forests. This amounts to an expenditure of about $1.1 million.

National Environmental Policy Act of 1969 (83 Stat. 852). To accomplish the principles and requirements of Section 102(2)(c) of this Act, there is a need to increase the scope and quality of environmental analysis. The Act requires environmental statements on proposed major Federal actions significantly affecting the environment.

1/ User expenditures--based on average expenditures for sport fishing and hunting as determined in the National Survey of Fishing and Hunting (1970).

2/ See footnote on previous page.

The NEPA process requires agencies to explore a wider range of alternatives, to examine cumulative and secondary effects, and formalize reviews with other agencies and the public. Increases in fiscal year 1976 will be used to intensify the environmental analysis of proposed resource activities to reduce adverse impacts or enhance environmental quality of fish and wildlife habitat.

The Endangered Species Act of 1973 (87 Stat. 884, December 28, 1973) reaffirmed and strengthened the Nation's commitment to the conservation of endangered and threatened species. The Act also reaffirms and strengthens Forest Service objectives and policy to give special emphasis to the protection of rare and endangered species of plants and animals.

This law requires the Forest Service to utilize its authorities in furtherance of the purposes of this Act by carrying out programs, directly and through cooperators, for the conservation of endangered and threatened species. The Forest Service must continue to "insure that actions authorized, funded, or carried out .... do not jeopardize" endangered or threatened species or their habitats.

The Secretary of the Interior, in consultation with the States, is responsible for identifying critical habitats. At the National level, Forest Service personnel have met with personnel in the Office of Endangered Species, Bureau of Sport Fisheries and Wildlife, Department of the Interior, and offered assistance in locating and designating critical habitats on National Forest System lands. Forest Service regions, areas, and stations will also work closely with Sport Fisheries and Wildlife and the States in locating and designating "critical" habitats on all lands involving Forest Service programs. There are actually 109 species of animals officially listed as endangered.

Work accomplishments during 1974

A summary of total wildlife and fish habitat acres improved follows:

Food and cover development	478,629
Fish stream improvement	2,939
Fish lake improvement	11,262
Wetland improvement	4,527

Also, 3,369,000 acres of wildlife habitat were improved through coordination with other land resource uses and development.

Examples of Recent Accomplishments

The Alaska Department of Highways, in cooperation with the Forest Service and Alaska Department of Fish and Game, constructed a 3,200-foot dike near Hyder to eliminate flooding of Fish Creek by the Salmon River. Fish Creek produces a unique race of chum salmon that sometimes attain weights of forty pounds and average about twenty. Such protection has helped divert a serious depletion, if not extinction, of this unusual race of chum salmon.

The Eastern Region is approaching its long-range fish and wildlife development programs on a State-by-State basis, working closely with the various State conservation agencies. A program for development of fish and wildlife habitat on National Forests in Missouri was initiated in fiscal year 1974. This joint State-Forest Service program will be the first comprehensive fish and wildlife program in the Forest Service. It serves as a model for similar State-Forest Service programs now being developed in Wisconsin, Michigan, Indiana, and Minnesota. A detailed report on the program is being prepared for distribution to the public.

In cooperation with Georgia State University, in 1974 an economic survey of Southeastern wildlife and wildlife-oriented recreation was completed. Based on survey data, nearly 9 million Southeastern households spent $4.1 billion for wildlife oriented recreation during the study year. A comparison of expenditures--actual outlays for one year by the population (with capital items amortized for one year)--with the monetary benefits received and required to give up, reveals that for every dollar of cash outlay, a total of $5.90 benefits is received, and for every dollar placed on giving up activity, a total value of $7.68 is received.

Project (4)

RANGELAND MANAGEMENT

		Permanent full-time positions
1974	$15,813,000	597
1975	17,870,000	602
1976	18,432,000	608
Change	+562,000	+6

An increase of $562,000, with an increase of 6 permanent full-time positions, is proposed as follows:

(1) Costs of roadless area environmental impact statements, $330,000. (See page 13.)

(2) For coordination of rangeland management needs with timber sale activities, $74,000.

(3) To provide for the full year costs of the pay increase effective in fiscal year 1975, $158,000.

GOAL: To achieve a level of livestock forage production and utilization from National Forest System lands commensurate with demand and their economic and physical ability to produce relative to other sources of livestock feed.

Scope of Program. Rangeland management has three principal long-term objectives:

(1) Achieve sustained annual production and utilization of 15.8 million animal unit months of livestock forage by the year 2000 (lowest estimated level of demand).

(2) Improve 7.3 million acres of deteriorated National Forest System range to a satisfactory condition through cost-effective development and improved management by 1990.

(3) Reduce or eliminate livestock grazing from 10.3 million acres of deteriorated range which does not justify investment in development and improved management.

Rangeland management objectives are met by applying systems of range management to local range areas in relation to their productivity for grazing and costs. System of management is determined through inventory and analysis of the range resource capability for each of 12,000 range allotments. Management prescriptions include:

(1) Installation of livestock management facilities such as fences and water developments.

(2) Intensive supervision of livestock use.

(3) Cultural treatment (plant control and reseeding) of severely depleted areas.

Plans for 1976 include an emphasis on bringing deteriorated ranges into satisfactory condition. This will be accomplished through installing improved management systems and the necessary range development practices where greatest benefits are expected. Efforts will continue toward locating range areas in unsatisfactory condition with the poorest chance for recovery under continued livestock grazing. Special emphasis will be directed at completing and maintaining range allotment plans.

Projections indicate the need for almost two to three times as much grazing from all of the Nation's rangeland in the year 2000 as they are now producing (Figure 4-1) and they have the capability to be developed to these needed production levels. National Forest System ranges are an integral part of the Nation's range livestock production system.

The Forest Service can achieve a production of 15.8 million animal unit months of grazing annually by year 2000 through known methods that meet the test of cost-effectiveness and low energy requirements. This production level represents the economic and physical ability of National Forest System rangelands to help meet a

conservative estimate of national demand (Figure 4-1, low estimate) relative to all other sources of range forage. This increased level of grazing can be produced on 15 million less acres than are now being grazed (Figure 4-2). Greater care in matching range development practices to land capability for grazing accounts for the increased production on less land.

National Forest System range can be developed to effectively produce 21 million animal unit months annually, their estimated competitive share of total National need for range grazing at the highest estimated demand level by the year 2000.

Development of National Forest System ranges to produce their share of national need for grazing will benefit local ranchers and their communities. More dollars from sale of livestock produced using the National Forest System will flow through local economies while adding to rancher income. Environmental quality will be improved. Other benefits will result.

Increased availability of range grazing on the National Forest System could contribute substantially toward saving feed grains for sale in world or other markets while contributing significantly to conservation of fossil fuel energy. If all of these animal unit months of grazing were substituted for feed grain, about 60 million bushels, valued currently at approximately $200 million, would be saved annually. In addition, saving of fossil fuels would amount to about 15 million gallons of gasoline.

Following are recent and projected accomplishments toward rangeland management objectives:

	1974	1975	1976
Allotment plans maintained (No.)	6,369	6,403	,286
Allotment plans initiated (No.)	200	883	,019
Grazing reduction on deteriorated rangeland (to date) (thousand acres)	3,313	3,681	4,196
Deteriorated range under improved management (to date) (thousand acres)	2,334	2,594	,956
Range revegetation (thousand acres)	130	112	75
Grazing use, paid permits (thousand animal unit months)	7,300	7,470	,640

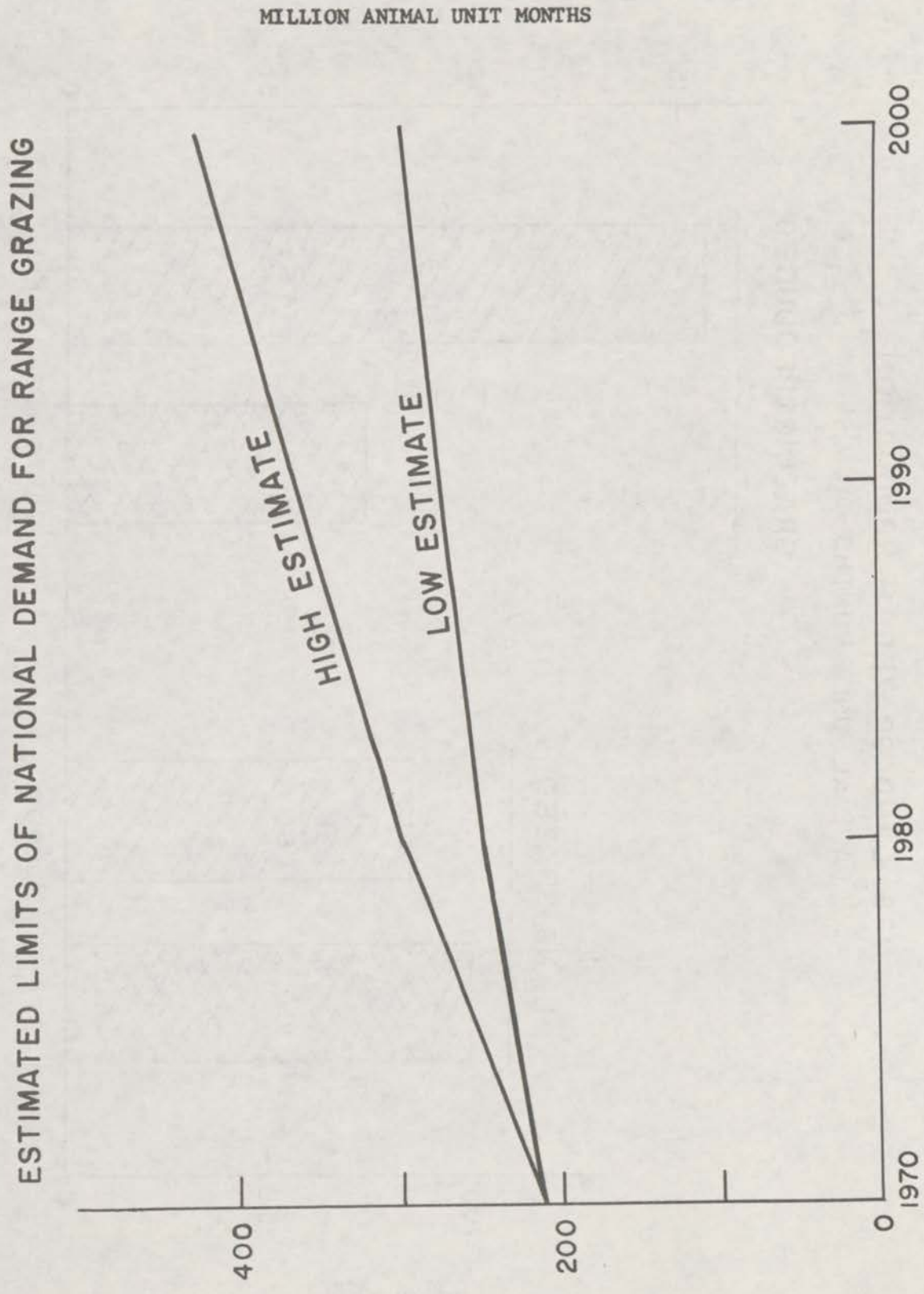

ESTIMATED LIMITS OF NATIONAL DEMAND FOR RANGE GRAZING
MILLION ANIMAL UNIT MONTHS
HIGH ESTIMATE
LOW ESTIMATE
400
200
0
1970
1980
1990
2000

Figure 4-1

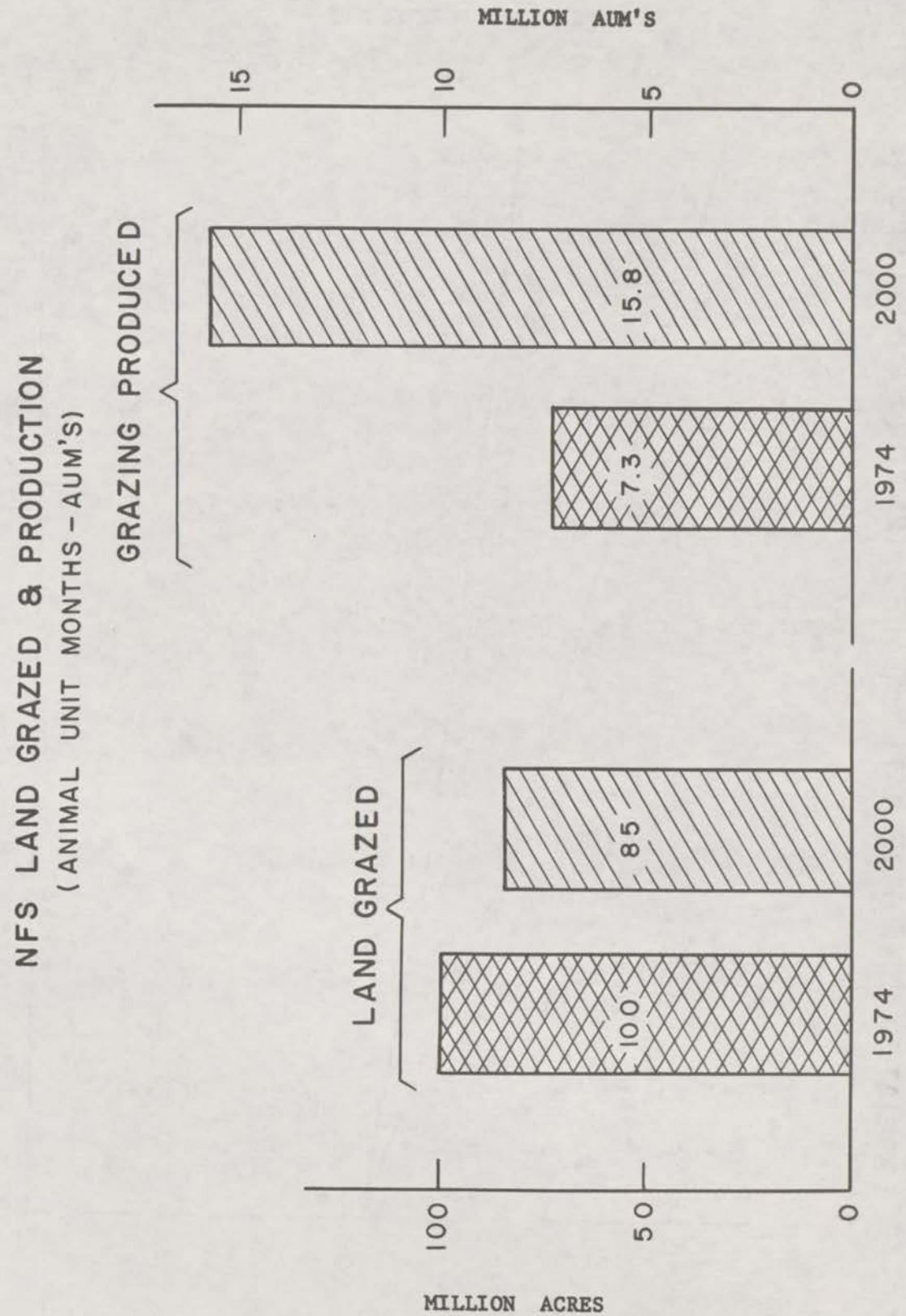

NFS LAND GRAZED & PRODUCTION
(ANIMAL UNIT MONTHS - AUM'S)
GRAZING PRODUCED
MILLION AUM'S
15
10
5
0
15.8
7.3
2000
1974
LAND GRAZED
85
100
2000
1974
100
50
0
MILLION ACRES

Figure 4-2

Project (5)

SOIL AND WATER MANAGEMENT

		Permanent full-time positions
1974	1/ $15,337,000	582
1975	16,506,000	539
1976	17,119,000	545
Change	+613,000	+6

An increase of $613,000, with an increase of 6 permanent full-time positions, is proposed as follows:

(1) For costs of roadless area environmental impact statements, $220,000. (See page 13.)

(2) For protection of critical soils and unstable slopes and enhancement of water production in support of timber sale activities, $178,000.

(3) To provide for the full year costs of the pay increase effective in fiscal year 1975, $176,000.

(4) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $39,000.

GOAL: To maintain and enhance the environmental quality of National Forests for optimum public use and services through the application of scientific geology, hydrology, and soils knowledge to resource protection and development programs.

Program for fiscal year 1976, compared with 1974 and 1975, follows:

	1974	1975	1976	Change
		(in thousands)		
Soil and water science for management support	$8,333	$9,800	$11,455	+$1,655
Watershed restoration and improvement	2,149	2,479	2,033	-446
Wild and scenic rivers studies	733	758	500	-258
Environmental analysis and construction liaison	2,541	2,645	1,960	-685
Planning liaison and protection related to projects of water resource development agencies	1,581	824	1,171	+347
Total	15,337	16,506	17,119	+613

Scope of Program

The objectives of soil and water management are accomplished primarily by providing Forest Service land managers engaged in the various land management activities the scientific advice and technical direction to help avoid land management problems. These services include:

(1) Surveillance and monitoring activities to fulfill mandatory requirements for maintaining the quality of natural waters.

(2) Providing knowledge of soil and water conditions and trends on which to base management decisions.

(3) Conducting inventories and surveys to acquire basic data on soil and water resources and interpreting data for short- and long-term planning.

(4) Identifying water needs for National Forest purposes in areas where State water adjudication proceedings are on-going.

1/ For comparability, $1 million appropriated for SEAM is shown under Forest research and $159,000 appropriated for Wild and Scenic Rivers on State and private lands is shown under General forestry assistance.

More directly, the program restores, through various cultural methods, degraded watershed lands caused by man's activities or natural disasters, to alleviate flooding and improve the quality and quantity of water. The program also directly affects water quantity and quality through scientific water management techniques such as prescriptions for timber cutting patterns, cover manipulation for increased water yield, and snowpack management.

The need for these services parallels the intensity of the various land management activities that are served by the program. The fiscal year 1976 funding level will provide services to over 65 percent of current land management activities.

The backlog of degraded watershed lands needing cultural treatment amounts to over 500,000 acres. The direct restoration work being done in fiscal year 1976 includes maintenance and reinforcement of past work to assure project success. Planned activities during fiscal year 1976 will restore approximately 30,000 acres.

The benefits from the soil and water program accrue both onsite and offsite. The onsite benefits are primarily related to maintenance and/or enhancement of the soil and water resources. A sustained yield of quality products from the National Forests is dependent on the maintenance of soil productivity. Currently, soil and water resource management prescriptions are prepared for about 5 million acres of National Forest System lands annually. In addition, benefits accrue from providing a quality environment for recreation use and other outdoor activities.

Offsite benefits from the program accrue to the downstream user of water flowing from National Forest lands. The 390.4 million acre-feet of high quality water produced from the National Forest is an example of the importance of water in the National Forest program. Costs for water treatment and maintenance of irrigation equipment are reduced, and the useful life of reservoirs is extended. In addition, fishery and wildlife values are enhanced and dangers from floods are minimized.

Some 4 years ago, a cost/effectiveness analysis was made of Forest Service water management techniques as they affected water yield The average cost of producing an added acre-foot of water was $5. Based on the downstream value of this water, the benefit/cost ratio was found to be very favorable in most instances.

Elements of the program relate directly to other programs outside the Forest Service Included is work on watershed projects authorized under PL 83-566, other laws, and cooperation and participation in the National Cooperative Soil Survey. The regulation of herbicide use poses a constraint against the expansion of cover manipulation projects to increase water yield.

Extreme demands are being put upon available water supplies, particularly in the West. The Congress and the courts have determined that the United States has a right to reasonable use of water on National Forests reserved from the public domain except those waters appropriated before the National Forests were created Efforts are underway to obtain sufficient quantities of water in accordance with legal authority for the administration and development of the National Forest System. This project on a watershed basis includes:

(1) An inventory of present and foreseeable needs.
(2) A determination of water availability.
(3) An assessment of the potential for increasing yields in water-short areas.
(4) Action to secure the water needed for National Forest purposes.

The western States want the Forest Service to complete the inventory program as rapidly as possible The field inventory of Forest Service consumptive water uses is essentially completed A major part of the total project effort is expected to be completed by fiscal year 1979.

Additional work is developing due to adjudication proceedings in some western States. Increasing judicial and administrative action in water rights is anticipated, both on lands reserved from the public domain and on acquired lands, over the next several years

Watershed restoration and improvement projects for 1976 include:

(1) The Palzo tract project (Illinois) where chemicals and sediment from old surface coal mining operations have seriously degraded water quality.

(2) South Fork Holston River and New River Watershed (Virginia) where sedimentation from old manganese mining operations affects stack water, wildlife and resident fisheries

(3) The Holden mine tailings revegetation and stream channel stabilization project (Washington) where wind blown particles are creating air and water pollution problems.

The continuance of this program is important in order to enhance the quality of the environment and restore productive capacity of renewable resources. Also, restoring the hydrologic functioning of rural lands damaged beyond the point of natural recovery is essential to meet soil stability and water quality requirements.

Funds will be used to provide opportunities for utilizing the skills, and to furnish jobs and timely income for local people in rural areas of low income and critical under-employment. Illustrative of some of the specific activities are:

(1) Emergency treatment and maintenance on the highest priority areas in the National Forest System lands burned over by wildfires.

(2) Being responsive to treatment and maintenance needs on thousands of miles of abandoned "orphan" roads and trails that are great contributors of sediment and uncontrolled runoff, causing local problems of flooding and the resultant inability of water supply to serve agriculture, domestic, or recreational needs.

(3) Maintenance and reinforcement of land treatment measures applied in prior years to eroding and gullied areas to assure establishment of ground cover and the proper functioning of control structures.

(4) Removal of debris in stream channels above reservoirs and in anadromous fish streams.

Another important portion of the soil and water program is the environmental analysis and construction liaison with water resource development agencies.

Environmental analyses delineate the effects, define necessary mitigating measures, and identify enhancement opportunities relative to proposed water resource development associated with National Forests and National Grasslands. Reports resulting from such analyses document measures which are essential to the attainment of National Forest multiple use objectives and identify how National Forest management can contribute to project purposes to optimize their economic and social contribution to rural America To be effective the analysis and report must be concurrent with the construction agency's preliminary planning to permit their findings to be incorporated in the licensing or authorizing document.

Liaison with the construction agency during the construction period is necessary to facilitate coordination between the construction agency and the Forest Service. Protection of the land and resources, minimizing interference with regular protection and management activities, and facilitating construction agency operations are direct economic dividends derived from this program

Experience has shown that without adequate analysis and liaison effort such as is provided by this activity, natural resources often suffer from enormous waste and misuse, and the project works fail to make their maximum contribution. Natural beauty and high quality water are among those resources most susceptible to loss. The rising value of forest resources and constant increase in demands against the declining resource base requires increased perception, scientific input and thoroughness in making environmental analyses and preparing reports.

Soil stabilization and cover improvement on lands tributary to water resource development projects reduce sediment yield, or modify the pattern of runoff and lengthen the life and increase the utility of water control structures.

This work is done on National Forest System lands tributary to the project, only where hydrologic analysis and other elements of the environmental analysis determine that such work is needed and that benefits to the project purpose are clearly established.

Treatment programs include the following:

(1) Modifying the vegetation to decrease erosion, to reduce flood peaks, and to increase the annual quantity and improve the timing of water yielded from the tributary lands.

(2) Clearing reservoir areas, where not done as part of construction, and keeping the reservoir free of debris to make the area safe for public use and to maintain scenic beauty.

(3) Land treatment measures such as contour terracing, gully plugs, headwaters debris and flow retarding structures, and streambank and shoreline stabilization measures.

Essential land treatment and related measures are planned at small watershed projects authorized by PL-566 and PL-534, and at other major reservoir projects. Treatment measures will include soil stabilization and vegetation management to improve water quality and quantity. Also, in order to provide for public safety and user enjoyment of reservoir areas, debris and stump removal will be accomplished on about 12,000 acres.

Legislative Impacts

Wild and Scenic Rivers Act (PL 90-542). The purpose of this activity is to carry out comprehensive studies of rivers designated as potential additions to the National Wild and Scenic Rivers System. This Act named 27 rivers as potential additions to the National System. The Forest Service is the lead agency for the Department of Agriculture's river study work on nine of the 27 rivers. These nine are: Chattooga River in North Carolina, South Carolina, and Georgia; Flathead River, Montana; Illinois River in Oregon; Pere Marquette River in Michigan; Moyie, Priest, St. Joe and Salmon (main stem) Rivers in Idaho; and the Skagit River in Washington.

All studies are cooperative efforts with States, Federal agencies, and other interested groups and individuals and they provide for employment of local people to collect resource data and data on resource use and capability. The program effort during fiscal year 1976 will essentially complete work on seven of the nine studies. The Priest and Moyie Rivers studies will be in the second year of a planned 3-year effort.

Examples of Recent Accomplishments

Soil resource inventories were conducted on 18.7 million acres; detailed soil surveys were conducted on about 0.5 million acres in cooperation with the Soil Conservation Service and the State Agricultural Experiment Station; and water resource inventories were conducted on 11.6 million acres.

Resource protection requirements and design services were provided by geologists, hydrologists, and soil scientists on more than 5,700 projects.

Soil and water condition and trend observations along with monitoring effects of timber management, mineral developments, Boundary Waters Canoe Areas, and suspected pollution problem sites where people physically use the water resource are underway at 2,450 locations.

Cooperative studies are continuing with State Fish and Game Departments to determine minimum flows necessary for fish culture in connection with Federal Power Commission relicensing of "run of the river" power facilities.

Rehabilitation work is coordinated with other resource and service divisions to accomplish an integrated program of management under multiple use.

In fiscal year 1974, Forest Service crews treated and stabilized:

Acres of sheet eroded and deteriorated areas	46,700
Miles of streambanks and shorelines	223

Treatments to aid in restoring favorable watershed conditions on lands damaged by wildfire continued. Emergency measures (initial treatment on new burns and maintenance on older burns) were applied to 33 fires on 60,000 acres that required onsite protection and posed threats to life, property, public health, and watershed functioning.

Project (6)

MINERALS MANAGEMENT

		Permanent full-time positions
1974	$3,436,000	153
1975	3,713,000	164
1976	6,943,000	222
Change	+3,230,000	+58

An increase of $3,230,000, with an increase of 58 permanent full-time positions, is proposed as follows:

(1) To carry out new mining regulations, $2,600,000.

(2) For costs of roadless area environmental impact statements, $220,000. (See page 13.)

(3) For coordination of minerals management needs with timber sale activities, $242,000.

(4) To provide for the full year costs of the pay increase effective in fiscal year 1975, $168,000.

GOAL: Administer pertinent laws and regulations to permit the uninterrupted flow of National Forest System mineral resources to the Nation's economy while insuring adequate protection of the surface resources and the environment; eliminate unauthorized uses of Federal land which may be occupied under the guise of the mining laws for purposes unrelated to mineral development.

Minerals Area Management

Due to the variety of its geologic environments, the National Forest System is one of the Nation's most important reservoirs of mineral resources. Nearly the full gamut of metallic and related nonmetallic deposits are represented, as are fossil fuels, geothermal resources, and the country's principal phosphate fertilizer reserves.

The Forest Service role in minerals area management, briefly but inclusively stated, is the administration and management of the lands under its jurisdiction, under pertinent laws and regulations, to permit the uninterrupted flow of National Forest System mineral resources to the Nation's economy while insuring adequate protection of the surface resources and the environment.

Minerals Area Management Workload

Activities	Current Program FY 1975	Proposed Program FY 1976	Change
General (1872) Mining Laws Administration ..	$1,366,385	$3,673,210	+$2,306,825
Includes: 41,234 Mining claims			
1,507 Unauthorized uses			
125 Patent applications			
Mineral Leasing Acts Administration	1,009,090	1,694,090	+685,000
Includes: 6,038 Oil, gas, and coal applications covering 6,743,102 acres			
256 Other leasable mineral applications covering ..... 318,935 acres			
1,103 Geothermal lease applications covering 1,434,480 acres			
8,318 Oil, gas, and coal leases covering ..... 7,691,468 acres			

Activities	Current Program FY 1975	Proposed Program FY 1976	Change
7,280 Other mineral leases covering ..... 176,929 acres 209 Geothermal leases covering ..... 478,200 acres			
Reserved Mineral Rights Administration ..... Includes: Coal, oil, gas, sand, gravel, and stone 669 cases covering 123,614 acres	$138,250	$ 187,460	+$ 49,210
Outstanding Mineral Rights Administration ..... Includes: Coal, oil, gas, sand, gravel, and stone 411 cases covering 155,160 acres	92,825	97,200	+4,375
Mineral Materials Disposal (Common Varieties) ... Includes: 1,853 applications covering 12,113 acres 1,994 leases or permits covering 21,470 acres	273,895	300,000	+26,105
Surface Mining and Reclamation ..... Includes: 3,108 "surface mines" covering 11,535 acres 73 surface mine reclamation projects covering 2,685 acres 29 mine drainage treatment projects directly benefitting 83 miles of streams	37,130	38,445	+1,315
Land Use Planning ..... Includes: Inputs for planning data from geologists, mining geologists, and mining engineers	464,125	623,525	+159,400
Geologic Aid and Interpretations (Specific Projects)	331,300	329,070	-2,230
Total	3,713,000	6,943,000	+3,230,000

Mining Regulations and Supervision

A greatly expanded workload will be created, beginning in the first half of fiscal year 1975, with implementation of the new regulations governing surface uses of National Forest lands by persons operating under the 1872 mining laws. The bulk of the additional workload will be due to:

(1) The review of prospectors' and miners' operating plans and "notices of intention to operate."

(2) Administration of operations under approved operating plans.

(3) Preparation of environmental impact statements that may be necessary.

The kinds of operations that will be administered under the regulations will include simple prospecting, exploration and development work, assessment work, road construction and the like, up to major mining developments. Operations may be anything from "one-shot," and last no more than a few days or a few weeks, to enterprises that continue on a very large scale for many years. The regulations, and the operating plans they prescribe, are designed to encourage exploration for, and production of, locatable minerals on the National Forests by environmentally acceptable means.

The Forest Service expects to respond annually to about 4,000 proposed operating plans or notices of intention to operate involving from 30,000 to 40,000 claims or more. The request for $2.6 million increase amounts to $650 per proposal. Obviously, some will cost much less and others far more, depending on:

(1) The nature and size of operations.

(2) The complexity of the surface--subsurface resource relationships.

(3) The environmental sensitivity of the area involved.

(4) The duration of operations.

(5) The degree of cooperation between operators and the Forest Service.

(6) Whether or not an environmental statement is needed.

Double benefits can be expected to accrue from implementation and administration of the regulations. They can be measured by the better quality of surface resources and the environment resulting from firm administration of the environmental aspects of mineral-related operations, and by the uninterrupted flow of vital National Forest System mineral resources to the Nation's economy.

Examples of Recent Accomplishments and Activities

Completed land use plans to coordinate oil and gas developments with other resource management activities and uses in the Thunder Basin National Grasslands of western North Dakota.

Participated in the interdepartmental (with Interior--BLM) Decker-Birney resource study in southeastern Montana, an area containing massive coal deposits on the Custer National Forest and neighboring lands.

Worked with mining claimants to permit further exploration and development of metallic mineral deposits in the Sawtooth National Recreation Area in Idaho in accordance with the Act by which that recreation area was established.

Participated in studies that will, when completed, result in planned development and use of major phosphate reserves within the Caribou National Forest in Idaho by environmentally sound means. This is a major study involving a number of Federal departments and agencies and private and State organizations and individuals.

With the mining company, Washington State officials, and the City of Everett, Washington, worked out an environmentally sound method of developing a substantial metallic mineral deposit in the municipal watershed.

Worked with a major copper company to develop and conduct exploration resulting in the least possible surface impacts in a designated primitive area in Arizona.

Participated in two major interdepartmental studies with the Department of the Interior involving the environmental aspects of oil and gas and phosphate development proposals in Florida.

Worked with Interior, EPA, and other Federal departments and the State of Wyoming in planning for environmentally sound development and production of coal and related developments involving the Thunder Basin National Grasslands in western North Dakota.

Worked with the State of Colorado and American Metal Climax in developing environmentally sound plans for mining a major molybdenum deposit in Colorado. The results have been well received by conservation organizations and at least one award by such an organization has been made in recognition of the project.

Developed and promulgated, as of September 1, 1974, the regulations to alleviate the hitherto uncontrolled environmental impacts of surface use of National Forest System lands by operations under the 1872 mining laws on the lands to which those laws apply. This involved development of both major legal categories of mineral deposits--those subject to Federal leasing and those subject to the 1872 mining laws.

Project (7)

FOREST FIRE PROTECTION

		Permanent full-time positions
1974	$36,359,000	1,184
1975	37,202,000	1,234
1976	37,904,000	1,238
Change	+702,000	+4

An increase of $702,000, with an increase of 4 permanent full-time positions, is proposed as follows:

(1) For fuel modification and fire prevention in support of the timber sale program, $311,000.

(2) To provide for the full year costs of the pay increase effective in fiscal year 1975, $337,000.

(3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $54,000

GOAL: Through land use plans and fire management plans, protect people, property and resources from fire and increase resource productivity, using fire by prescription.

This program provides management of fire for beneficial effects and for resource protection on 187 million acres of National Forest lands and provides protection for an additional 17 million acres. The program is designed to lower the flammability of forest and rangelands through improved land use planning, accelerated fuel modification, and expanded fire prevention.

Results are greater protection to lives, property and resources throughout rural America and the rural/urban interface where potential for loss is greatest.

The proposed budget will be used to finance protection measures approximately as follows:

	1974	1975	1976	Change
		(in thousands)		
Fire prevention	$8,346	$8,075	$8,229	+$154
Fire detection	3,445	3,303	3,366	+63
Fire attack forces	15,522	17,617	17,580	-37
Air operations	4,270	5,138	4,863	-275
Fuel modification	1,498	2,569	3,366	+797
Equipment development and testing	470	500	500	- -
Modular Airborne Fire Fighting System	1,400	- -	- -	- -
Studies, surveys, plans, and training	584	- -	- -	
Tussock moth infested areas	824	- -	- -	- -
Total	36,359	37,202	37,904	+702

Annual losses from forest fire vary according to weather, forest vegetation condition, fire occurrence and firefighting preparedness. As examples, losses exceeded protection cost by 28 percent in 1970 while losses exceeded protection cost by 500 percent in 1971. Total losses have exceeded protection cost by $480 million in the period 1970-1974. Losses are growing at a rapid rate while protection costs are essentially the same. Currently losses exceed protection cost by 260 percent.

Losses are expected to decline with this program as a result of improved effectiveness and efficiency of program action.

Program benefits of protecting the Nation's natural resources from fire occur both in rural and urban areas. Protection of timber resources benefits the lumber and home building industry. Benefits to rural and minority employment result through direct employment of firefighting forces and indirectly as employment is generated from a productive National Forest.

The quality of the environment is improved through scientific smoke management and application of sound fire management practices, including the prescribed use of fire. Uncontrolled fires become less tolerable each year as the interface between rural and urban areas increases.

The threat of fire to the timber resource becomes more critical as more areas are harvested, public access is expanded when roads are built into remote areas, and intensive management is applied to more forested areas. Protection benefits the timber resource and thusly the lumber and home building industries. Management of the timber resources requires the support of an effective program for lowering the flammability of forest lands through improved land use planning, accelerated fuel modification, and expanded protection.

Land and resources protected by the Forest Service are subject to more use by recreationists, travelers and others for special purposes, collectively increasing the risk from man-caused fires. Paradoxically, response of the land to good management practice often creates combustible fuels where few existed before. The challenge is to meet the burgeoning problem of increased hazard and risk. Where possible, effort has been made to make improvements in fire prevention, preparedness, suppression, and modification of fuels to increase effectiveness and efficiencies.

Examples of Recent Accomplishments

Fire training and safety. Major thrusts in national fire training have been in two areas. Fire management's relationship to land use planning and improved performance in large fire suppression through command and safety training. The entire effort has the added dimension of complete interagency cooperation with States, Canada, and the Department of the Interior as attested by joint participation in four training sessions for more than 340 trainees in fiscal year 1975.

The expected results are: Improved land management through land use planning; better understanding of ecosystems dynamics; more effective management of large fire situations using modern management techniques; and integration of viable safety functions in emergency organization that reduces accidents.

The fire safety program is closely tied to the training program in a comprehensive effort to modernize the fire safety function and define its proper role in large fire suppression. Complex and expensive systems, used in dangerous situations, demand highly skilled safety support by fully trained experts. Approximately 60 people will receive this training in fiscal year 1975.

Fuel treatment. Work in this program consists of constructing new fuel breaks, maintaining existing fuel breaks, making vegetative type conversions in highly hazardous fuel areas, cleanup of forest debris along roadsides, and treatment of forest fuels to improve protection from fire and achieve ecological benefits.

The rate of progress being made in lowering the flammability of forest lands is illustrated by the 150,000 acres of forest fuel reduction which was accomplished in fiscal year 1974.

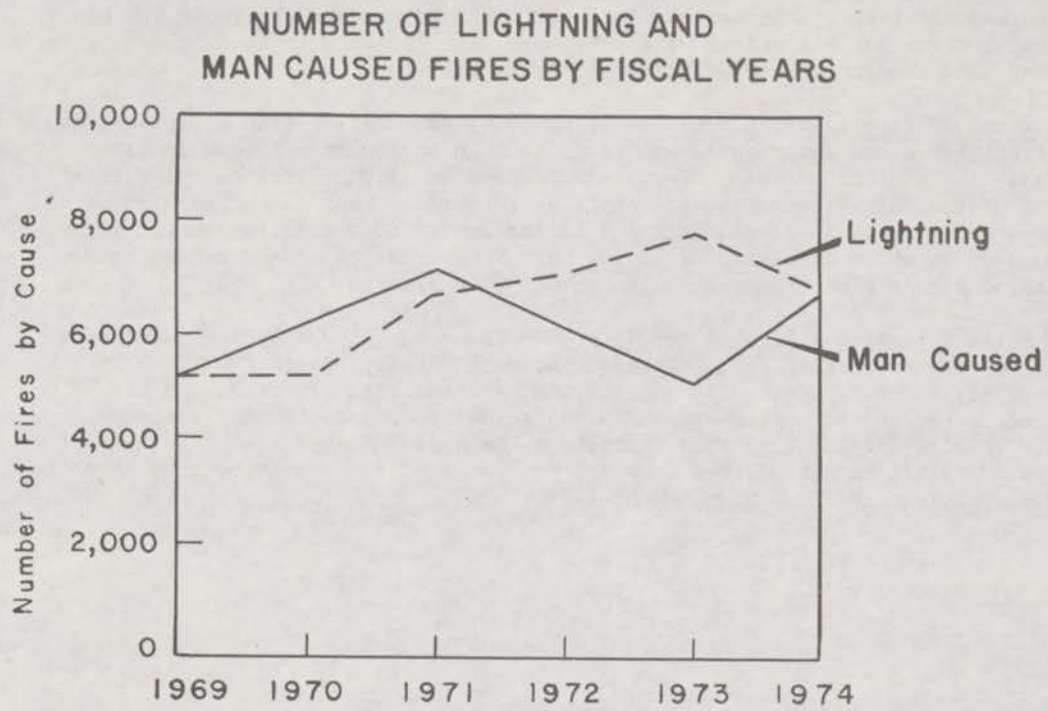
Aviation management. A contract was let for seven Modular Airborne Firefighting Systems (MAFFS) to FMC Corporation, builders of the prototype system. Two of the production systems, together with a prototype, were available for operational use during the 1974 fire season. Six aircrews, representing the regular Air Force, Air Force Reserve and the Air National Guard, were trained and qualified as air tanker crews by Air Force and Forest Service instructors. MAFFS was dispatched to a fire on the Lincoln National Forest in Nebraska and to one on the San Bernardino National Forest in California. A number of successful drops were made on each fire. MAFFS, in a C-130 Hercules aircraft, operated with available commercial air tankers.

The new single national contract for air tankers was used for the first time in 1974. Experience with the new contract indicated that the single-contract concept is workable and effective. A national contract for helicopters is being prepared for the 1975 season.

Standardized contract specifications for use in all helicopter contracts are being finalized. These specifications were developed with the Department of the Interior's Bureau of Land Management and Office of Aircraft Services.

Mobilization of firefighting forces. During 1974, the mobilization effort was to have firefighters and their equipment ready to take action on a fire when it occurred. The success of this effort is evidenced by 12,007 fires out of a total of 12,637 fires being controlled at less than 10 acres. This is an improvement of 479 fires over the five-year average and is the result of the deployment of fire-fighting forces which consisted of moving them from areas of moderate fire danger to areas of higher fire danger through coordination efforts.

At the Boise Interagency Fire Center (BIFC) in Idaho the Forest Service, National Weather Service and Bureau of Land Management work closely together with their field organizations to constantly monitor the national fire situation. BIFC coordinated the transportation and the prepositioning of firefighting resources from low to high fire danger areas throughout the United States. As fire situations become critical firefighting resources are placed on alert or sent to fire threatened areas on a national basis.


NUMBER OF LIGHTNING AND
MAN CAUSED FIRES BY FISCAL YEARS
Number of Fires by Cause
10,000
8,000
6,000
4,000
2,000
0
1969
1970
1971
1972
1973
1974
Lightning
Man Caused

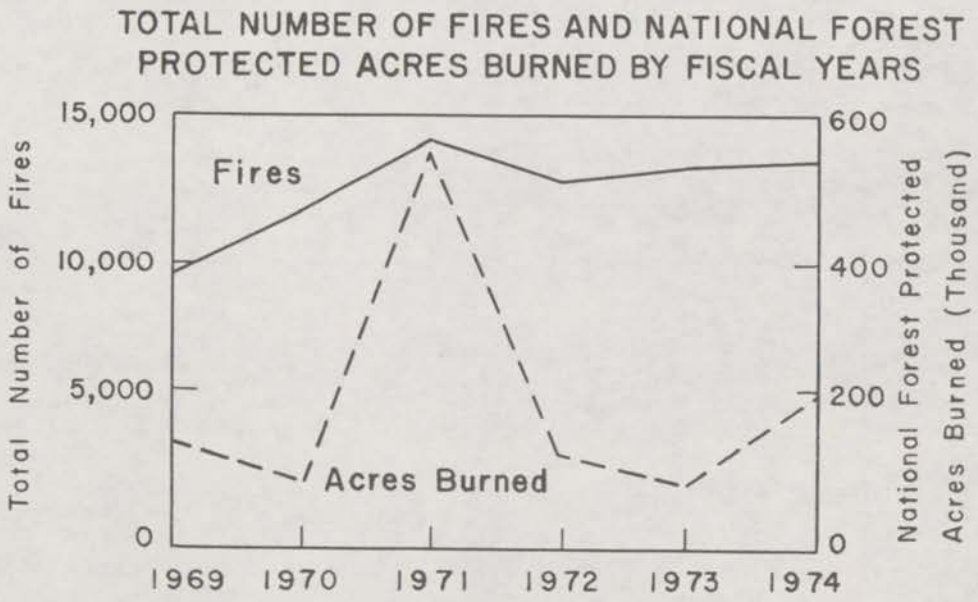

TOTAL NUMBER OF FIRES AND NATIONAL FOREST
PROTECTED ACRES BURNED BY FISCAL YEARS
Total Number of Fires
15,000
10,000
5,000
0
600
400
200
0
National Forest Protected
Acres Burned (Thousand)
Fires
Acres Burned
1969
1970
1971
1972
1973
1974

Figure 7

Project (8)

GENERAL LAND MANAGEMENT ACTIVITIES

		Permanent full-time positions 1/
1974	$24,741,000	852
1975	26,984,000	821
1976	31,509,000	881
Change	+4,525,000	+60

A net increase of $4,525,000, with an increase of 60 permanent full-time positions, is proposed as follows:

(1) To improve the standards of administration of special uses, $1,511,000 increase.

(2) For maintenance of fire and general purpose facilities, including communications, required to maintain health and safety, $301,000 increase.

(3) Increases for marking land lines and monuments ($823,000), land exchange program ($125,000), land classification program ($22,000), geometronics program ($37,000), maintenance of facilities ($662,000), and coordination of special use needs ($15,000) in support of timber sale activities.

(4) To reimburse the Employees' Compensation Fund, $471,000 increase.

(5) To provide for the full year costs of the pay increase effective in fiscal year 1975, $564,000 increase.

(6) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $14,000 increase.

(7) Decrease of $20,000 for non-recurring cost of the special Bicentennial and Forestry Centennial booklet.

The total program for fiscal year 1976, compared with 1974 and 1975 follows:

	1974	1975	1976	Change
		(in thousands)		
(1) Land classification	$787	$844	$884	+$40
(2) Land exchange	3,681	3,937	4,148	+211
(3) Land status records and cadastral engineering (land line location)	4,088	4,473	5,407	+934
(4) Geometronics	1,298	1,388	1,455	+67
(5) Maintenance of improvements for fire and general purposes (including communications)	8,972	9,593	10,776	+1,183
(6) Special uses--non-recreation	3,615	3,869	5,508	+1,639
(7) Payments to Employees' Compensation Fund	2,300	2,860	3,331	+471
(8) Bicentennial and Forestry Centennial	- -	20	- -	-20
Total	24,741	26,984	31,509	+4,525

GOALS: Provide for orderly occupancy and use of National Forest System lands while protecting the resources; to provide for land classification, land exchange, boundary adjustments, landline location, a land record system, maps and surveys for managing and administering primary activities on National Forest System lands.

To support the Forest Service land management programs by providing adequate maintenance of fire, administrative, and other purpose improvements.

Issue and administer land use permits when consistent with the public interest and good land management practices, for such purposes as assistance to the economic development of rural areas, energy development, antiquities study, and communications and utilities transmission.

1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1974, 14; 1975, 26; 1976, 26.

(1) Land classification ($884,000, an increase of $22,000 in support of timber sale activities and $18,000 for increased pay costs)

The function of land classification is to structure and recommend programs concerning the extent, location, and composition of the National Forest System that will most effectively further national objectives. Purposes and activities are directed toward improving the landownership pattern to facilitate protection, management, development and use of recreation, timber, range forage, water, and wildlife resources, all of which can contribute significantly to growth of rural economies. Another activity will be to survey the degree of utilization of public lands pursuant to E.O. 11724 of June 25, 1973.

Financing at the level indicated will enable Forest Service to meet pressing needs for:

(a) Continuing involvement in Alaska and cooperation with the Department of the Interior and Congress in considering proposals and alternatives for additions of 80 million acres of Federal lands to the four national conservation systems, including new National Forests, as provided in the Alaska Native Claims Settlement Act. A completion of Congressional action on these proposals by December 18, 1978, is contemplated in the Act.

(b) Consideration of application for land by the State of Alaska, which is authorized to select up to 400 thousand acres of National Forest land under the Alaska Statehood Act.

(c) Identification and detailed analysis of areas within and adjacent to National Forests and National Grasslands to determine the changes which should be made in landownership patterns to increase efficiency of administration and to facilitate accomplishment of national objectives. Of particular urgency are intensive unit planning projects and participation in joint agency planning efforts.

(d) Evaluation of possible transfer of Federal lands to or from the National Forest System, including consideration of lands claimed by Indians, and jurisdictional transfers at numerous Federal water control projects particularly important for outdoor recreation.

(e) Analysis and classification of lands with potential for national recreation areas, monuments, wildlife preserves, or other special status.

Continual review of the location and extent of the National Forest System components is desirable to determine the best land use and ownership patterns considering new developments and needs. The 155 National Forests and 19 National Grasslands located in 44 States and Puerto Rico include nearly 40 million acres of non-Federal land. Programs for consolidations of landownership within existing boundaries of these units need to be based upon consideration of careful analyses of their short- and long-range effects.

Examples of Recent Accomplishments

Completion of the final impact statements for 18.8 million acres on proposed new National Forests in Alaska under provisions of the Alaska Native Claims Settlement Act.

Secured National Forest status for 10,800 acres of public domain lands within the Sawtooth National Recreation Area in Idaho.

Evaluated 700,000 acres in various alternatives to the Hells Canyon-Snake River (Idaho) proposal and prepared recommendations to the Congress which we believe will best serve long-term public needs.

Provided expertise and a key coordination role in the preparation of the Cross Florida Barge Canal environmental statement.

Completed the Lake Koocanusa (Libby Dam), Montana, interchange with the Corps of Engineers resulting in a jurisdictional adjustment of over 13,700 acres contributing greatly to administrative efficiency.

Studied and reported on proposed jurisdictional adjustments with the National Park Service involving several hundred thousand acres at the Grand Canyon in Arizona and the South Fork of the Cumberland River in Kentucky and Tennessee.

(2) Land exchange ($4,148,000, an increase of $125,000 in support of timber sales activities and $86,000 for increased pay costs, with an increase of 3 permanent full-time positions;)

Properly conceived land exchanges result in alleviating the need to construct certain road segments, the location and marking of property lines, the issuance of certain special-use permits, and other management costs. The consolidation of ownership through land exchanges results in a $10 cost avoidance for every dollar spent in accomplishing the program. Selected examples of estimated cost avoidance which will result during the next 10 years, from the fiscal year 1976 exchange program, are (dollars in thousands):

Reductions	Units	Amount
(a) Property lines and corners	1,030 miles	$1,236
(b) Road construction and maintenance	75 miles	3,750
(c) Use permits and occupancy trespass	300 cases	1,200
(d) Road right-of-way needs	190 cases	114
Total		6,300

Revenue increases to the United States Treasury can also result through well planned exchanges. Access road problems can be eliminated and make heretofore inaccessible mature timber stands available for harvest to the mutual benefit of the United States and timber companies in need of timber supplies. The rural economy is also benefited. Significant benefits can be realized for both the United States and private owners engaged in livestock operations through the consolidation of ownerships, thus reducing costs and improving management of the ranges.

Carefully designed land exchanges can make material contributions in bettering rural America and the communities located within or near the boundaries of the National Forest System. Communities are frequently aided through exchanges that provide lands for expansion and development.

The fiscal year 1976 land exchange program will involve the examination and appraisal of 200,000 acres involving an estimated 200 proposed exchanges. The land the Government gives and receives in exchanges must be examined and appraised. Following examination and appraisal, negotiations are expected to be completed and 120 cases approved during the fiscal year involving a total of 120,000 acres.

(3) Land status records and cadastral engineering (land line location) ($5,407,000, an increase of $823,000 in support of timber sale activities and $111,000 for increased pay costs, with an increase of 14 permanent full-time positions)

(a) Land status records. This is a systematic search of records and the presentation in plat, tabular record, and supplementary form of all ownership interests, and Congressional and administrative actions which limit or otherwise affect administration of the National Forest System or the use of adjoining lands by the owners thereof. It is the record of what land interests the Forest Service must administer. Significant progress is necessary to meet the expanding need for correct currently available records of Forest Service landownership, use, and encumbrances.

The National Forest System was created and altered to meet changing needs by many Acts of Congress and administrative actions in accordance therewith. Some 160 million acres were reserved from the public domain.

A system has been developed to assure that accurate status information is assembled and records kept current at a central point and supplied to all field offices of the Forest Service. In converting to this system, all public records are reviewed and entered. Maintenance of records is done in the nine regional offices and supplied currently to some one thousand field offices. Time devoted to maintenance of the converted records has slowed down conversion of the remaining records. The project is over 89 percent completed. The conversion job is scheduled for completion by the end of 1976.

The systematic search and review of records in the conversion project continues to reveal, and identify more clearly, many parcels and general areas which have previously been misunderstood, identified inaccurately, or overlooked in administration due to inadequate records and poor identifying ties between records and ground location.

Users of these system records (Forest Service and other Government agencies, adjoiners, and other public users) are enthusiastic about them. They give confidence in administration and reduce areas of potential ill-will with adjoiners and users of public and private resources.

Work Proposed for 1976

	1974	1975 planned	1976 estimated
Townships completed	1,000	900	800

(Total program: 15,561 mapping units--accomplished through calendar year 1974 - 13,862)

(b) Cadastral engineering (land line location). Accurate property lines, in conformance to statutory law or judicial interpretation, is a necessary part of every resource activity in order to manage and use that resource properly. A lawful property line instills confidence in responsible land managers. Nationwide timber potential yield can be increased by as much as 6 percent by managing to the lawful property line. This contributes to the stability and growth of the rural economy.

Unknown, unidentified or uncertain location of property lines adversely affects the management of National Forest or adjoining lands. The lack of definite or improperly marked land lines impedes orderly harvest and management of timber. The Forest Service often will not offer sales near uncertain property lines or sales and/or cutting boundaries will be moved back from questionable lines as a safety factor. This often leaves buffers of uncut timber which could cause future trespass, or may result in losses from insects, disease, and blowdown. Accurate, plainly marked property lines allow effective National Forest management throughout the entire area of responsibility. Identified and posted land lines help insure continued sale of the full allowable timber cut without delaying timber harvest of mature and overmature timber stands.

An investment in intensive management of National Forest lands against an adjoiner must be preceded by a lawfully established property line, if the job is to be done properly.

There are about 272,500 miles of property lines between National Forest System lands and adjoining land owned by others. Presently, only about one-tenth of these property lines are adequately located and marked.

About 1,160,500 property corners are required to locate and perpetuate these property lines, with an additional 210,900 corners not on the property lines but needed to control the property corners. Many of these corners were established 50 to 200 years ago. A large share of them have disappeared because of neglect, carelessness, and destructiveness. Many have not yet been reestablished.

Corner search under this program has revealed that about 30 percent of previously established corners are missing and must be restored through relatively expensive cadastral surveys. The search also reveals that many corners are in such poor condition that their loss is imminent unless quick action is taken.

The following has been accomplished since the program was initiated in 1958:

Fiscal Year 1958 - 1974

Corners:

1. Searched	325,183
2. Found acceptable evidence of corner	232,240
(a) Do not need remonumentation	63,260
(b) Need remonumentation	169,971
(1) Remonumented by Forest Service	102,947
(2) Remonumented by Bureau of Land Management/ Forest Service cooperation	48,340
3. No acceptable evidence of corners found, cadastral surveys needed to establish corners	92,943
(a) Corners established by Forest Service cadastral surveys	44,490
(b) Corners established by Bureau of Land Management cadastral surveys	17,488
4. Miles of cadastral surveys run to reestablish missing corners and establish new corners required:	
(a) By Forest Service	21,575
(b) By Bureau of Land Management	17,068

Property Lines:

Miles marked to standard	21,57[illegible]
Miles marked to interim standard	11,198
Miles inspected and maintained	4,992

The Forest Service has been fairly successful in obtaining help and support in this work from some of the adjoining landowners.

Most of the activity to date has been to search out and preserve "thread hanging" corners to prevent their complete loss. For every such corner found in time and preserved, a future expenditure of about $1,000 for a cadastral survey is saved. The average cost to search out and permanently preserve a corner by remonumentation is $100.

Trespass that results in costly litigation and time-consuming "untangling" procedures can be mostly eliminated by timely and adequate marking of property lines.

Since 1966, an annual transfer of the appropriation for this program has been made to the Bureau of Land Management, Department of the Interior. The money was used for urgent cadastral surveys to reestablish property corners that were determined to be lost through the Forest Service corner search activity In fiscal year 1976, $515,000 is planned for transfer to BLM.

The work to be done under the cadastral program is shown in the following table. This work is carried on in every State in which the Forest Service administers land.

Work Proposed for 1976 as Compared with 1974 and 1975

	FY 1974 (Accomplished)	FY 1975 (Planned)	FY 1976 (Planned)
Corners (Nos.)			
Search	22,475	25,000	25,000
Remonument	11,286	12,000	15,000
Establish or reestablish	7,393	4,500	7,000
Boundaries (miles)			
Locate and mark:			
To full standard	2,298	2,200	2,400
To partial standard	469	1,000	500
Maintenance	645	1,000	1,000

Examples of Recent Accomplishments

The accomplishment since 1958 in comparison to the total inventory of property corners and lines is as follows:

Corners searched	28 percent of total
Property lines marked	12 percent of total

Work has been programed in areas of most urgent need, thus obtaining maximum immediate benefits.

One-third of the corners revealed as missing by the corner search phase to date has been reestablished by cadastral surveys.

(4) Geometronics ($1,455,000, an increase of $37,000 in support of timber sale activities and $30,000 for increased pay costs).

Multiple use planning requires a knowledge of the terrain, the extent and location of the natural resource and how they are tied in with, and related to, existing and planned management programs within a planning unit. Environmental information is essential in the planning of timber sales and related facilities.

In response to this need, a layered mapping system consisting of basic data plates (culture, land grid, and drainage) is being implemented. The functional data plates (recreation information, fire closures, range types, and soils) are combined with the appropriate basic data plates to produce the required management tool. The objective is to incorporate all the functional map efforts into a coordinated system tied to a common map base.

These advancements promise significant reductions in field operations and ultimately in cost and manpower savings. Investigations are underway to provide more comprehensive and efficient methods for recording, storing, retrieving, and displaying interrelated terrain and resource data. Digitizing various forms of data for computer handling is an essential element in this process. These displays are in various forms--tabular data, seen area plats, slope and aspect maps, resource layers, orthophotos, and engineering data.

The goal for fiscal year 1976 is the production of 13 National Forest multi-layered, secondary base series maps (1/2" per mile scale) as follows:

	1974	1975	1976
Resource inventory (primary series) 1:24,000 scale quadrangles	590	708	700
General management (secondary series) Forests	12	12	13
Regional series	1	1	- -

This will be accomplished by utilizing the primary map data plates and resource inventory information acquired on the forests.

In addition, funds for fiscal year 1976 will be used to develop new geometronic process and display techniques.

(5) Maintenance of improvements for fire and general purposes (including communications) ($10,776,000, an increase of $301,000 for maintenance of fire and general purposes facilities required to maintain health and safety, increase of $662,000 in support of timber sale activities, increase of $220,000 for increased pay costs, with an increase of 11 permanent full-time positions)

This program provides for maintenance and for minor betterment, minor construction or replacement of buildings, utilities, pollution abatement facilities, airfields, communications systems and related structures throughout the National Forests and National Grasslands. The value of existing improvements exceeds $300 million. These facilities are essential to the achievement of program outputs of the Forest Service including the protection, management and development of National Forest lands for minerals and recreation use, forage, timber and water protection, and for enhancement of fish and wildlife habitat.

It is essential that the physical plant, upon which all Forest Service programs depend, be brought up to acceptable standards and be maintained at that level. These funds will be used toward maintaining the following:

Type of facility	
Fire lookouts, towers, and observatories	1,500
Dwellings, cabins, barracks, and trailers	5,900
Field offices	800
Storage and service buildings	8,000
Water and sewer systems	5,000
Radio units	22,100
Landing fields and heliports	500
Miles of telephone lines	7,500
Miles of administrative fences	1,200

Maintenance funds are proportionately distributed to field units based upon number of improvements by classes currently justified by program use and an analysis of unit maintenance cost.

(6) Special uses--non-recreation ($5,508,000, an increase of $1,511,000 to improve the standards of administration of special uses, $15,000 increase in support of timber sale activities, increase of $99,000 for increased pay costs, and increase of $14,000 for GSA space costs, with an increase of 32 permanent full-time positions.)

Fiscal year 1976 funding will be focused on those uses essential to the Nation and its communities' well being. Each permitted use will be accompanied by the necessary administrative attention to assure minimum levels of land and resource stewardship.

On-Going Program

Under this program applications are reviewed, and special use permits are issued and administered for a variety of uses which support development and utilization of energy resources, economic development of rural areas and provide a land base on utilities and communications Other uses involve:

(1) Agriculture
(2) Community improvements
(3) Industry
(4) Public information
(5) Research study and training
(6) Transportation
(7) Water resources

In fiscal year 1976, more than 52,600 special use permits covering over 6 million acres will be in force.

Of particular importance is the impact on National Forest lands and resources caused by the energy crisis. Many land uses are associated with coal development in Western United States, as well as gas from Alaska to the lower 48 States and its distribution therein. The proposed increase of $1,511,000 will bring administration of 75 percent of the existing permits to a standard that will assure permit compliance, conformance with law, and protection of the environment and timely termination of the use.

The trans-Alaska pipeline authorization (PL 93-153) provides for reimbursement to the U. S. Treasury for all extraordinary work relating to these rights-of-way. The Forest Service will spend about $300,000 in fiscal year 1976 on such work from within the total available under this item. There are no specific provisions in the law which require reimbursement of costs for other rights-of-way or types of uses. Response to such applications must be made from existing funds regardless of the number or complexity of applications. Although the intent of Congress was expressed in the Independent Appropriation Act of 1952 that Government agencies obtain reimbursement when goods and services are provided to persons beyond the level provided to the public at large, it has not been stated elsewhere or specifically as in PL 93-153.

Fiscal year 1974 receipts from special land uses were $1,571,000. The fee value of free permits is estimated to be about $2.7 million. It is estimated that fiscal year 1976 receipts will be $1.9 million.

New Program Dimensions

With the resource impacts caused by the energy crisis, it will be necessary to rely on industry to finance basic resource data on soils, geology, vegetation, archaeology, hydrology, weather, air and water pollution, in order to prepare timely and responsive environmental impact statements in compliance with NEPA.

The current budget of $100,000 will allow proper administration of archaeological permits which are issued to provide knowledge of the past.

(7) Payments to Employees' Compensation Fund ($3,331,000, an increase of $471,000)

These funds will be used to reimburse the Employees' Compensation Fund, Department of Labor, in accordance with PL 86-767 (5 USC 785), which was enacted September 13, 1960, for benefit payments made from that fund to employees of the Forest Service who are injured while in the performance of duty. The 1975 payment was $2,859,969.

(8) Bicentennial and Forestry Centennial (Decrease of $20,000 for non-recurring cost of the special booklet)

Project (9)

FIGHTING FOREST FIRES

		Permanent full-time positions
1974	$106,875,000	391
1975	4,275,000	354
1976	4,275,000	354

No increase is proposed.

This program provides an initial amount for suppressing forest fires on or threatening National Forests and Grasslands which cannot be handled by the regular forest fire protection program. This initial appropriation is supplemented each year to the extent necessary to cover all emergency forest firefighting costs.

Included are expenditures for men and equipment to control large fires. In addition, when critical conditions present an unusual threat, men are engaged in special efforts to prevent fires and temporary forces are used at strategic locations to be available to attack fast-spreading fires.

The volume and scope of emergency forest firefighting varies annually according to severity of burning conditions and the extent of the forest fire protection program. This program and the forest fire protection program are directly related. The cost of fire protection on the National Forests and Grasslands is the sum of the two programs.

Calendar Year 1974 Fire Season

Beginning in April, extreme fire weather conditions in Arizona and New Mexico created critical fire situations. The 14,469-acre Spring Fire, Lincoln National Forest, was particularly damaging. Fire weather moderated until late June when the National Forests in the Southwest Region were hit with 628 fires in 10 days. Less than 2 percent of these became large fires because of the effectiveness and preparedness of firefighting forces. Two of the largest fires during this period were the 26,000-acre Salvation Fire on the Gila National Forest and the 14,438-acre Cottonwood Fire on the Lincoln National Forest.

Beginning in mid-summer, a moderate to severe drought occurred throughout the Intermountain West. There was a 24 percent increase in the number of fires in this area.

During late August, in Southern California, the 14,953-acre Soboba Fire required a massive cooperative agency suppression effort. Large numbers of men backed by strong logistic support of equipment and supplies were necessary to suppress this wildfire.

Through October 31, 1974, 13,637 fires burned 143,963 acres. This is a 3 percent increase in the number of fires and a 29 percent decrease in acres burned based on the past 5-year average. Of the total fires, 6,359 were man-caused fires.

GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL--Fiscal Year 1974

Fighting Forest Fires

Alabama	$107,498
Alaska	118,833
Arizona	13,588,304
Arkansas	256,672
California	29,289,285
Colorado	1,009,230
District of Columbia	1,792,304
Florida	336,763
Georgia	67,950
Idaho	11,198,634
Illinois	20,512
Indiana	18,008
Kentucky	85,891
Louisiana	74,645
Maine	7,692
Maryland	9,290
Michigan	216,443
Minnesota	108,418
Mississippi	152,730
Missouri	240,663
Montana	11,172,730
Nebraska	99,648
Nevada	538,522
New Hampshire	13,856
New Jersey	10,100
New Mexico	8,804,035
North Carolina	223,276
North Dakota	7,394
Ohio	16,622
Oklahoma	32,598
Oregon	15,957,277
Pennsylvania	37,259
South Carolina	160,194
South Dakota	183,634
Tennessee	59,809
Texas	39,257
Utah	1,771,183
Vermont	18,333
Virginia	250,572
Washington	7,602,750
West Virginia	40,229
Wisconsin	65,437
Wyoming	1,070,520
Total	106,875,000

The amounts for 1975 and 1976 have not been distributed by States. Locations of emergency firefighting funds cannot be forecast with any degree of accuracy.

Project (10)

FOREST INSECT AND DISEASE CONTROL

		1/ Permanent full-time positions
1974	$17,432,000	236
1975	11,462,000	225
1976	11,579,000	225
Change	+117,000	- -

An increase of $117,000 is proposed as follows:

(1) To provide for the full year costs of the pay increase effective in fiscal year 1975, $82,000.

(2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $35,000.

No change is proposed for permanent full-time positions in the Forest Service.

The forest pest control program involves protection of the forest from depredation by insects and diseases on lands of all ownerships. Activities include:

(1) The prevention, detection, evaluation, and suppression of pests on all Federal lands.

(2) Coordination of the program on lands of all ownerships.

(3) Federal financial assistance to States for a similar program on State and private lands.

Forest pests seriously reduce the potential timber resource through direct killing of trees and growth loss on living trees. Much of the killed volume is dispersed throughout the entire forest and becomes unusable before it can be harvested. Intensive management of the timber resources is geared to using the optimum portion of the productive capacity of the forest land. Achievement of optimum timber production is dependent on a strong program for prevention, detection, evaluation, and suppression of all insect and disease pests.

The program for fiscal year 1976 will continue the strong effort to hold losses caused by bark beetles to tolerable levels. It is not possible to predict this far in advance the exact locale or scope of control operations, but present beetle activity indicates a need for:

(1) Mountain pine beetle control projects in Colorado, Idaho, Montana, Oregon, South Dakota, Wyoming, and Washington.

(2) Douglas-fir beetle, fir engravers, and western pine beetle control projects in California, Oregon, and Washington.

(3) Spruce beetle control projects in Alaska, Arizona, Colorado, New Mexico, Oregon, and Washington.

(4) Southern pine beetle control projects in Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Defoliating insects--particularly the gypsy moth and spruce budworm--will be suppressed where resource values are seriously threatened by them and benefit/cost ratios are favorable. Firm data are not available as yet, but it is expected that projects will be required to suppress:

(1) Spruce budworm in Maine, Minnesota, and Montana.
(2) Gypsy moth in New Jersey, New York, Pennsylvania, and Rhode Island.
(3) Jack pine budworm in Michigan and Wisconsin.
(4) Sawflies in Michigan, Minnesota, and Wisconsin.
(5) Cankerworms and leaf tiers in New Jersey, New York, Pennsylvania, and Virginia.

1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1974, 7; 1975, 12; 1976, 10.

Every effort is being made to strengthen procedures for making detection surveys and biological evaluations. The future goal is to cut detection time in half and to obtain more precise figures concerning the status of specific pests. By decreasing the time during which pests go undetected and better predicting the course they might follow, suppression costs can be lowered and destructive losses to the Nation's timber supply reduced.

Data are critically needed to determine the forest resource impact caused by insects and diseases for purposes of making meaningful control decisions. Target data will be biological, environmental, and economic in nature. There will be four major thrusts in this urgent activity:

(1) Compile and sort existing information and store for retrieval and analysis.

(2) Develop and improve existing insect and disease detection and biological surveys, using rigorous statistical techniques of gathering, screening, storing, and analyzing data.

(3) Redesign existing detection, biological, economic, and environmental survey procedures to gather resource impact data.

(4) Initiate special evaluations to gather impact data on soils, vegetative, and stand structure changes; tree mortality and growth loss; recreation; fire hazard; and watershed.

Complete forest resource impact data on which sound suppression decisions can be based are the best means of determining when and where insect and disease control is necessary to meet forest management objectives. Although difficult to quantify, sound, dependable impact data will improve overall efficiency of pest management strategies and should lead to reduced costs on a unit basis over the long run.

Costs have greatly increased since the implementation of the National Environmental Policy Act of 1969. Not only have additional monies been required to prepare and review environmental statements, but restrictions on pesticides have seriously affected the capability to deal with major outbreaks of forest pests. Several pesticide registrations have been canceled leaving no effective method for reducing destructive losses occurring to the Nation's timber supply. When less persistent chemicals have been available as substitutes, a larger effort has been required to monitor outbreaks for proper timing of application. Much of the effort is devoted to screening and testing of alternate chemicals and other means of managing pest populations.

An evaluation of current policies and control strategies in dwarf mistletoe suppression projects is underway. An analysis of the current input from all Forest Service regions indicates the need for more standardized control criteria. These criteria will be drafted in calendar year 1975. Funding will be discontinued until an acceptable control strategy has been developed.

An evaluation of the current oak wilt program indicated only partial success through the control effort. Funding of this project will be discontinued until more effective control methodology can be developed.

White pine blister rust control will be continued primarily as part of the Department of the Interior's program. Some small projects on State and private lands will be undertaken by the Forest Service. Careful evaluation of rust conditions and hazard has reduced the area requiring control materially in recent years.

Pest outbreaks fluctuate greatly. The cost to check and contain outbreaks cannot be accurately predicted. Using past experience as a guide, along with the knowledge of developing situations, Federal fund needs for fiscal year 1976, as compared with 1974 and 1975, are as follows:

	1974	1975	1976	Change
		(in thousands)		
Technical assistance, training, impact, detection and evaluation	$7,885	$7,713	$8,164	+$451
Methods improvement	283	226	145	-81
Bark beetle control	3,018	1,864	1,817	-47
Defoliator control	5,530	1,135	1,123	-12
Other insect control	136	134	130	-4
Blister rust control	233	264	150	-114
Oak wilt control	70	52	- - 1/	-52
Dwarf mistletoe control	202	24	- - 1/	-24
Other disease control	75	50	50	- -
Total	17,432	11,462	11,579	+117

1/ These funds have been transferred to technical assistance, training, impact, detection and evaluation to further emphasize field programs.

Insect and disease control scientists serve to protect the environment by carefully evaluating and weighing the adverse effects of unchecked pest outbreaks against the benefits which might result from prescribed control treatments. As part of their overall responsibilities, pest management personnel attempt to keep all environmental impacts, both beneficial and adverse, in proper perspective and recommend only those courses of action that will provide the greatest benefits to the American people.

Examples of Recent Accomplishments

Cooperation with States. In fiscal year 1974, 40 States participated in the Cooperative Pest Action Program and it is expected that 2 to 4 more States will participate in fiscal year 1975. Fiscal year 1974 suppression project cost-sharing with the States led to approximately 5.7 million Federal dollars moving directly and 2 million Federal dollars moving indirectly into the State forest pest management program.

Bark beetles. Suppression of various bark beetle outbreaks involved treatment of numerous individual spot infestations in the West and South. The massive Southern pine beetle epidemic now underway is being vigorously attacked on many fronts. Although direct chemical treatment was necessary in some places, greater advantage. than in any previous year, was taken to utilize salvage logging as a means of removing beetle infested trees from the woods before the insects were able to emerge and kill additional trees. Last year approximately 35.6 million board feet and 683.8 thousand cords of beetle infested timber were salvaged from forests in the South.

Spruce budworm in Maine. Some three million acres of spruce-fir type in Maine were infested by spruce budworm. Zectran was used in a cooperative suppression effort with the State of Maine to treat 430,000 acres where high damage was imminent, if the infestation was allowed to go unchecked. The overall reduction in budworm population in the treated area was accomplished.

The current outlook is that spruce budworm outbreaks are extremely high, nationwide. In Eastern North America, some 124 million acres are infested, 5.3 million acres of which are located in Maine. Outbreaks are underway in the Western United States on about 5 million acres. A 3 to 3.5 million acre suppression project is being considered in Maine. Suppression plans for other areas in the United States are questionable at this time.

Douglas-fir tussock moth. About 435,000 acres were treated in Oregon, Washington, and Idaho in 1974. The effort was considered successful and additional suppression projects are not currently anticipated against the moth in these States.

Cooperative gypsy moth suppression. Some 259,634 acres were cooperatively treated in New Jersey, New York, Pennsylvania, and Rhode Island. Treatments were successful in protecting the current year's foliage. Significance of any long-term benefits must await further evaluation. No new defoliation was reported in Delaware, Maryland, Virginia, or West Virginia. Outbreaks in the Northeast were down significantly in 1974. A total of 750,905 acres were defoliated to some degree in 1974 compared to 1,773,846 acres in 1973, biggest drop was in Pennsylvania, New Jersey and New York.

Air pollution. The impact of air pollutants on forest resources continue to increase in importance annually. Current impact studies show substantial mortality and growth loss has occurred to forest vegetation. In addition, injury to wildlife populations has resulted in areas subject to fluoride emissions. Pollutants identified as damaging agents to all forest resources include fluorides, sulfur dioxide, and ozone. Studies are continuing to better define the total impact of pollutants on all forest resources.

Progeny testing for fusiform rust resistance. With the development of a successful method and evaluation procedure, the progeny testing program for determining the susceptibility of slash and loblolly pine seed lots to fusiform rust is operational. Approximately 600 seed lots have been screened against several isolates of the rust fungus from various geographic locations in the South. Nursery producers' interest in the program continues to grow as evidence indicates the losses from this disease will be drastically reduced. It is anticipated that the full capacity of testing 2,500 seed lots annually in the present facilities will be reached in a few years. Additional procedures are being developed for other disease problems that have promise for a similar program.

GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL--In thousands

	1974	1975 estimate	1976 estimate	Change
Alabama	$664	$627	$438	-$189
Alaska	105	164	168	4
Arizona	191	166	167	1
Arkansas	189	77	78	1
California	1,046	1,043	1,031	-12
Colorado	480	827	780	-47
Connecticut	- -	21	21	- -
Delaware	1	6	6	- -
District of Columbia	436	204	211	7
Florida	167	45	45	- -
Georgia	260	401	405	4
Hawaii	9	20	21	1
Idaho	1,118	1,270	671	-599
Illinois	10	8	8	- -
Indiana	21	8	8	- -
Iowa	4	7	7	- -
Kansas	8	6	6	- -
Kentucky	154	56	57	1
Louisiana	262	484	460	-24
Maine	1,080	650	625	-25
Maryland	2	135	136	1
Massachusetts	2	20	21	1
Michigan	76	135	136	1
Minnesota	103	120	120	- -
Mississippi	256	168	136	-32
Missouri	64	93	94	1
Montana	553	829	691	-138
Nebraska	10	8	8	- -
Nevada	26	30	31	1
New Hampshire	69	103	104	1
New Jersey	351	208	209	1
New Mexico	186	324	279	-45
New York	366	220	221	1
North Carolina	318	324	297	-27
North Dakota	1	- -	- -	- -
Ohio	26	57	57	- -
Oklahoma	131	7	7	- -
Oregon	2,232	882	601	-281
Pennsylvania	692	345	261	-84
Rhode Island	228	135	136	1
South Carolina	216	166	129	-37
South Dakota	433	512	313	-199
Tennessee	154	160	156	-4
Texas	368	513	461	-52
Utah	125	84	90	6
Vermont	32	77	78	1
Virginia	205	594	565	-29
Washington	1,106	1,034	438	-596
West Virginia	145	190	191	1
Wisconsin	127	197	198	1
Wyoming	181	301	202	-99
Total	14,989	14,061	11,579	-2,482

Project (11)

COOPERATIVE LAW ENFORCEMENT

		Permanent full-time positions
1974	$2,582,000	35
1975	1,632,000	45
1976	3,936,000	45
Change	+2,304,000	- -

An increase of $2,304,000 is proposed as follows:

(1) To provide sufficient funds to meet contract commitments, $2,257,000.

(2) To provide for the full year costs of the pay increase effective in fiscal year 1975, $34,000.

(3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $13,000.

No change in permanent full-time positions is proposed.

Fiscal year 1976 funds, compared with 1974 and 1975, follow:

	FY 1974	FY 1975 Estimate	FY 1976 Estimate	Change
		(in thousands)		
Program level	$2,795	$4,427	$3,936	-$491
Unobligated balance brought forward	-3,008	-2,795	- -	2,795
Unobligated balance carried forward	2,795	- -	- -	- -
Appropriation (budget authority)	2,582	1,632	3,936	2,304

Public Law 92-82 (August 10, 1971) authorized the Secretary of Agriculture to cooperate with any State or political subdivision thereof in the enforcement of State or local laws on lands of the National Forest System. Such cooperation includes reimbursement to a State or its subdivision for expenditures incurred in connection with activities on National Forest System lands.

State and local laws and ordinances are applicable on National Forest System lands with few exceptions. The Forest Service must look to State and local law enforcement officials to enforce these laws and ordinances or the National Forests. State and local law enforcement agencies will continue to perform, on a nonreimbursable basis, their normal law enforcement duties without cost to the Federal Government. This program provides for the negotiation of law enforcement agreements between the local law enforcement agencies and the Forest Service to handle abnormal impacts caused by public use of the National Forest.

As of June 30, 1974, there were approximately 300 agreements in operation. It is expected that this number will increase to 371 in fiscal year 1976. 741 counties in 43 States are eligible to participate in this program.

It is proposed that a level program be maintained as these small cooperating agencies generally must increase their staff and invest in added equipment to provide service under the agreement. They need a commitment that there will be reasonable continuity in program financing from year to year.

GEOGRAPHIC BREAKDOWN OF PROGRAM LEVEL

Cooperative Law Enforcement

	FY 1975 estimate	FY 1976 estimate	Change
		(in thousands)	
Alabama	$24	$21	-$3
Alaska	49	44	-5
Arizona	223	199	-24
Arkansas	54	48	-6
California	962	855	-107
Colorado	61	54	-7
District of Columbia	66	59	-7
Florida	60	53	-7
Georgia	33	29	-4
Idaho	250	223	-27
Illinois	34	30	-4
Indiana	14	12	-2
Kentucky	22	20	-2
Louisiana	21	18	-3
Maine	8	7	-1
Michigan	64	57	-7
Minnesota	48	43	-5
Mississippi	29	26	-3
Missouri	79	70	-9
Montana	398	354	-44
Nevada	79	70	-9
New Hampshire	62	55	-7
New Mexico	228	203	-25
North Carolina	58	51	-7
Ohio	13	12	-1
Oklahoma	4	3	-1
Oregon	387	344	-43
Pennsylvania	43	38	-5
Puerto Rico	20	18	-2
South Carolina	19	17	-2
South Dakota	73	65	-8
Tennessee	46	41	-5
Texas	20	18	-2
Utah	279	248	-31
Vermont	53	47	-6
Virginia	62	55	-7
Washington	371	330	-41
West Virginia	11	10	-1
Wisconsin	23	20	-3
Wyoming	77	69	-8
Total	4,427	3,936	-491

Forest Land Management
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302		1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Direct obligations:				
	Personnel compensation:			
11.1	Permanent positions	124,415	129,742	139,680
11.3	Positions other than permanent	59,468	43,212	45,245
11.5	Other personnel compensation	30,873	2,434	2,545
11.8	Special personal services payments	9,038	.....	.....
	Total personnel compensation	223,794	175,388	187,470
	Personnel benefits:			
12.1	Civilian	21,888	18,368	19,088
13.0	Benefits for former personnel	87	57	55
21.0	Travel and transportation of persons	13,811	8,186	13,475
22.0	Transportation of things	13,488	12,464	13,030
23.0	Rent, communications, and utilities	10,359	12,968	13,665
24.0	Printing and reproduction	2,402	1,618	1,530
25.0	Other services	56,482	43,484	46,659
26.0	Supplies and materials	28,097	23,241	26,627
31.0	Equipment	8,356	6,351	6,745
32.0	Lands and structures	3,870	2,769	5,155
41.0	Grants, subsidies, and contributions	4,000	5,756	5,756
42.0	Insurance claims and indemnities	143	67	70
44.0	Refunds	37	.....	5
	Subtotal direct obligations ...	386,814	310,717	339,330
95.0	Quarters and subsistence charges direct	-1,571	-1,544	-1,549
99.0	Total obligations	385,243	309,173	337,781

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302		1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Reimbursable obligations:				
	Personnel compensation:			
11.1	Permanent positions	1,585	1,438	1,438
11.3	Positions other than permanent	676	502	502
11.5	Other personnel compensation	1,011	567	567
11.8	Special personal services payments	821	315	315
	Total personnel compensation	4,093	2,822	2,822
	Personnel benefits:			
12.1	Civilian	236	205	205
21.0	Travel and transportation of persons	276	134	134
22.0	Transportation of things	147	80	80
23.0	Rent, communications, and utilities	220	204	204
24.0	Printing and reproduction	8	8	8
25.0	Other services	5,889	2,715	2,709
26.0	Supplies and materials	1,406	757	757
31.0	Equipment	56	56	56
32.0	Lands and structures	77	105	105
42.0	Insurance claims and indemnities	11	2	8
	Subtotal reimbursable obligations	12,419	7,088	7,088
95.0	Quarters and subsistence charges	-14	-8	-8
99.0	Total reimbursable obligations	12,405	7,080	7,080
	Total obligations, Forest Service	397,648	316,253	344,861

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302		1974 actual	1975 estimate	1976 estimate
	ALLOCATION ACCOUNTS			
	Personnel compensation:			
11.1	Permanent positions	146	333	327
11.3	Positions other than permanent	232	373	361
11.5	Other personnel compensation	4	2	2
	Total personnel compensation	382	708	690
	Personnel benefits:			
12.1	Civilian	33	45	44
21.0	Travel and transportation of persons	79	108	96
22.0	Transportation of things	24	41	40
23.0	Rent, communications, and utilities	3	4	5
25.0	Other services	191	324	282
26.0	Supplies and materials	30	41	40
31.0	Equipment	22	18	19
	Total obligations, allocation accounts (Department of the Interior)	764	1,289	1,216
99.0	Total obligations	398,412	317,542	346,077

Personnel Summary

Identification code 05-96-1100-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE			
Direct:			
Total number of permanent positions	10,125	10,068	10,498
Full-time equivalent of other positions	7,789	5,045	5,277
Average paid employment	16,488	13,433	14,095
Reimbursable:			
Total number of permanent positions	103	92	92
Full-time equivalent of other positions	84	64	64
Average paid employment	187	156	156
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions	$11,174	$11,794	$11,794
ALLOCATION ACCOUNTS			
Total number of permanent positions	21	38	36
Full-time equivalent of other positions	26	39	37
Average paid employment	54	80	77
Average GS grade	9.15	9.15	9.15
Average GS salary	$14,648	$15,453	$15,625

FOREST PROTECTION AND UTILIZATION

Proposed Change in Language

Change in language is proposed as follows. Deleted matter is enclosed in brackets.

For expenses necessary for forest protection and utilization, as follows:

Forest land management: For necessary expenses .... fighting and preventing forest fires on or threatening such lands [and emergency rehabilitation] and for liquidation .... fighting and preventing forest fires [and for the emergency rehabilitation of burned-over lands under its jurisdiction] and $1,910,000 for insect and disease ....

This change would eliminate the advance authorization for emergency fire rehabilitation. A joint study is being conducted by the Forest Service and the Bureau of Land Management which will identify the problems and opportunities, the expected results, and the benefits and costs of rehabilitation efforts. We propose to eliminate this language pending the completion of the study.

FOREST PROTECTION AND UTILIZATION -- FOREST LAND MANAGEMENT

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976 :Estimate:	:7/1-9/30/76 Estimate
Forest land management:		
Sales administration and management ...	$98,124	$34,332
Reforestation and stand improvement	46,686	10,372
Recreation use	51,130	24,484
Wildlife and fish habitat management	11,360	3,109
Rangeland management	17,732	5,188
Soil and water management	17,119	5,162
Minerals management	6,943	2,081
Forest fire protection	37,904	12,239
General land management activities:		
Special uses--non-recreation	5,610	1,052
Land classification, adjustments, and surveys	11,840	1,898
Maintenance of improvements for fire and general purposes (including communications)	10,728	3,058
Payments to Employees' Compensation Fund	3,331	- -
Total, Forest protection and management	318,507	102,975
Fighting forest fires	4,275	4,275
Forest insect and disease control	11,579	3,078
Cooperative law enforcement	3,936	1,060
Total, Forest land management	338,297	111,388

Program and Financing (in thousands of dollars)

Identification code 05-96-1100-0-1-302			
	7/1-9/30/76		
Program by activities:			
Direct program			
1. Forest land management:			
(a) National Forest protection and management	102,975		
(b) Fighting forest fires	4,275		
(c) Forest insect and disease control	3,078		
(d) Cooperative law enforcement	1,060		
Total forest land management	111,388		
2. Forest research:			
(a) Forest and range management	9,885		
(b) Forest protection	5,912		
(c) Forest products and engineering	3,184		
(d) Forest resource economics	2,569		
Total forest research	21,550		
3. State and private forestry cooperation:			
(a) Forest fire control	7,014		
(b) Forest tree planting	50		
(c) Forest management and processing	608		
(d) General forestry assistance	1,530		
Total State and private forestry cooperation	9,202		
Total direct program	142,140		
Total reimbursable program	500		
Total program costs, funded 1/	142,640		
10 Total obligations	142,640		

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-1100-0-1-302				
		7/1-9/30/76		
	Program by activities--continued			
	Financing:			
	Receipts and reimbursements from:			
11	Federal funds	-400		
14	Non-Federal sources	-100		
40	Budget authority	142,140		
	Relation of obligations to outlays:			
71	Obligations incurred, net	142,140		
72	Obligated balance, July 1	62,957		
74	Obligated balance, September 30	-35,097		
90	Outlays	170,000		
1/	Includes capital outlay as follows:	$3,000 thousand.		

Justification for Transition Period July 1-September 30, 1976

The percent of the estimates for each activity requested varies from a low of 19 (general land management activities) to a second high of 48 (recreation use) and high of 100 (fighting forest fires). The levels of funding proposed for each activity for the transition period are not pro rata of the 1976 request because of the seasonal workload in the Forest Service.

The program level for the transition period for the following activities represents the continuation of programs at the fiscal year 1976 level. The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program with adjustments to recognize the unusually high firefighting costs incurred during the summer of 1974.

	Amount Requested (in thousands)	Percent of FY 1976 Program
Sales administration and management	$34,332	35

The following program is proposed with requested funds (in thousands):

Sale preparation	$15,420
Harvest administration	15,235
Subtotal, preparation and harvest	30,655
Enforcement of Log Export Act and substitutions	185
Timber inventory and stand management control	1,540
Silviculture examination	1,952
Total	34,332

Sale preparation:

Million board feet (local scale)	3,100
Cost per thousand board feet	$4.97
Total cost (in thousands)	$15,420

Harvest administration:

Expected harvest level in million board feet (local scale)	3,500
Total cost (in thousands)	$15,235

Reforestation and stand improvement	$10,372	22

The following program is proposed with requested funds (dollars in thousands):

Reforestation	$4,042	9,900 acres
Timber stand improvement	4,980	26,100 acres
Genetic tree improvement	1,040	1,631 acres of seed orchards
Nursery operation and development	310	11 nurseries
Total	10,372	

Recreation use	$24,484	48

Funds requested will be used as follows (in thousands):

Administration of concessions and recreation use permits	$835
Operation and maintenance	18,334
Planning and inventories	785
Wilderness administration	1,630
Visitor Information Service	2,900
Total	24,484

	Amount Requested (in thousands)	Percent of FY 1976 Program
Wildlife and fish habitat management	$3,109	27
It is planned to do the following work with the funds requested:		
Land treated in which wildlife habitat coordination was planned and used (thousand acres)	1,256	
Direct habitat development (thousand acres)	45	
Rangeland management	$5,188	29
Following accomplishments are projected toward rangeland management objectives:		
Allotment plans maintained (No.)	7,286	
Allotment plans initiated (No.)	276	
Deteriorated range being treated (thousand acres)	98	
Range revegetation (thousand acres)	20	
Grazing use (thousand animal unit months)	4,100	
Soil and water management	$5,162	30
Program proposed follows:		
Environmental quality protection (thousand acres)	1,260	
Water quality improvement (thousand acre-feet)	378	
Reduction of human and economic toll of floods and land disturbance (thousand tons)	37	
Forest-related resource analysis (thousand acres)	18,576	
Added water for area and community development (thousand acre-feet)	11	
Minerals management	$2,081	30
Program targets planned for the transition period follows:		
Mining claims (No.)	8,850	
Mining law compliance (No.)	1,350	
Mineral leases (No.)	3,600	
Mineral withdrawal and mineral character determination (thousand acres)	200	
Mineral material disposals	795	
Exercised mineral reservations and rights outstanding	300	
Forest fire protection	$12,239	32
The proposed request will be used to finance protection measures approximately as follows (in thousands):		
Fire prevention	$2,572	
Fire detection	1,053	
Fire attack forces	5,489	
Air operations	1,945	
Fuel modification	1,050	
Equipment development and testing	130	
Total	12,239	

	Amount Requested (in thousands)	Percent of FY 1976 Program
General land management activities	$6,008	19

Program proposed for the transition period follows (in thousands):

Land classification	$220
Land exchange	665
Land status records and cadastral engineering (land line location)	793
Geometronics	220
Maintenance of improvements for fire and general purposes (including communications)	3,058
Special uses--non-recreation	1,052
Total	6,008

Land classification Financing at this level will enable work of a multi-year nature, begun prior to or during fiscal year 1976, to be continued toward timely completion. It will also enable field work to be done during the transition period which is essential to the urgent classification work planned for the non-field season immediately following in fiscal year 1977. Much of the work required is unpredictable as to time and place but is of a non-deferrable nature when it arises. Examples are: Investigation of claims by Indians against National Forest lands; analyses for reports to Congress on legislation for boundary changes for establishment of National Recreation Areas or for other special areas; and consideration of critically needed land ownership adjustments.

Land exchange. Selected examples of estimated cost avoidance which will result during the next ten years from the July 1-September 30, 1976, exchange program, are:

Reductions	Units	Amounts (in thousands)
Property lines and corners ..	100 miles	$110
Road construction and maintenance	8 miles	400
Use permits and occupancy trespass	30 cases	120
Road right-of-way needs	20 cases	12
Total		642

Cadastral surveys. Work proposed for the transition period:

Corners (No.)		Boundaries (miles)	
Search	3,500	Locate and mark:	
Remonument	1,100	To full standard ..	300
Establish	800	To partial standard	100
Maintenance	270	Maintenance	430

Geometronics. Funds requested will be used to continue work during the transition period which is essential to multiple use planning, to develop new geometronic process, and display techniques.

	Amount Requested (in thousands)	Percent of FY 1976 Program
Maintenance of improvements for fire and general purposes (including communications). Funds requested will be used for maintenance and for minor betterment, minor construction or replacement of buildings, utilities, pollution abatement facilities, airfields, communications systems and related structures throughout the National Forests and National Grasslands.		
Special uses--non-recreation. Funds will be used during the transition period to review applications, issue and administer special use permits for a variety of uses which support development and utilization of energy resources, economic development of rural areas and provide a land base on utilities and communications.		
Fighting forest fires	$4,275	100
Funds will be used to suppress forest fires on or threatening National Forests and Grasslands which cannot be handled by the regular forest fire protection program. The full amount of the annual appropriation is requested for the transition period. During the past five years the following obligations were incurred in the period July 1 through September 30 (in millions):		
1970 ..... $17.7 1971 ..... 48.3 1972 ..... 30.8 1973 ..... 41.0 1974 ..... 50.0		
Forest insect and disease control	$3,078	27
Funds proposed will be used as follows (in thousands):		
Technical assistance, training, detection, and evaluation ..... $2,020 Bark beetle control 1,058		
The work proposed in the transition period is needed to continue the strong effort to hold losses caused by bark beetles to tolerable levels, and to strengthen procedures for making detection surveys and biological evaluations.		
Cooperative law enforcement	$1,060	27
In order to meet contract commitments with State and local law enforcement officials, these funds are needed to maintain a reasonable continuity in program financing from year to year.		
Total, Forest land management	$111,388	33

Projects (12) - (21)

GEOGRAPHIC BREAKDOWN OF APPROPRIATION

Forest Research

State	Headquarters or Project Location	FY 1975 estimate	FY 1976 estimate	Change
		(in thousands)		
Alabama	Auburn	$390	$395	+$5
Alaska	Fairbanks	641	446	-195
	Juneau	836	657	-179
Arizona	Flagstaff	863	871	+8
	Tempe	904	913	+9
	Tucson	294	549	+255
Arkansas	Fayetteville	243	246	+3
California	Arcata	284	287	+3
	Berkeley	3,118	3,190	+72
	Fresno	437	458	+21
	Redding	196	199	+3
	Riverside	2,810	2,839	+29
Colorado	Fort Collins	2,371	2,299	-72
Connecticut	Hamden	1,068	1,090	+22
District of Columbia	Washington	200	829	+629
Florida	Lehigh Acres	174	181	+7
	Marianna	215	219	+4
	Olustee	790	803	+13
Georgia	Athens	1,716	1,746	+30
	Macon	1,295	1,309	+14
Hawaii	Honolulu	561	677	+116
Idaho	Boise	577	483	-94
	Moscow	1,205	1,226	+21
Illinois	Carbondale	948	961	+13
Kentucky	Berea	891	902	+11
Louisiana	Pineville	3,345	3,388	+43
	New Orleans	966	1,115	+149
Maine	Orono	322	326	+4
Maryland	Beltsville	307	311	+4
	Hyattsville	1,212	1,217	+5
Massachusetts	Amherst	414	430	+16
Michigan	East Lansing (including Cadillac)	727	735	+8
	Houghton	469	472	+3
	Marquette	377	281	-96
Minnesota	Duluth	355	361	+6
	Grand Rapids	340	344	+4
	St. Paul	1,518	1,707	+189
Mississippi	Gulfport	1,586	1,615	+29
	Oxford	338	341	+3
	State College	255	257	+2
	Stoneville	951	865	-86
Missouri	Columbia	290	295	+5

GEOGRAPHIC BREAKDOWN OF APPROPRIATION

Forest Research -- continued

State	Headquarters or Project Location	FY 1975 estimate	FY 1976 estimate	Change
		(in thousands)		
Montana	Bozeman	$482	$487	+$5
	Missoula	3,417	3,467	+50
	Billings	1,749	1,775	+26
Nebraska	Lincoln	258	263	+5
Nevada	Reno	315	- -	-315
New Hampshire	Durham	1,022	939	-83
New Jersey	Pennington	389	392	+3
New Mexico	Albuquerque	202	204	+2
New York	Syracuse	382	90	-292
North Carolina	Asheville	1,042	1,173	+131
	Franklin	345	297	-48
	Research Triangle (Raleigh-Durham)	869	885	+16
North Dakota	Bottineau	259	263	+4
Ohio	Delaware (including Columbus)	1,849	1,879	+30
Oregon	Bend	329	334	+5
	Corvallis	4,136	4,189	+53
	LaGrande	606	556	-50
	Portland	1,785	1,952	+167
Pennsylvania	Upper Darby	665	771	+106
	Warren	426	432	+6
	Scranton	300	- -	-300
Puerto Rico	Rio Piedras	390	496	+106
South Carolina	Charleston	328	333	+5
	Clemson	117	425	+308
South Dakota	Rapid City	366	371	+5
Tennessee	Sewanee	237	240	+3
Texas	Nacogdoches	340	346	+6
Utah	Logan	546	552	+6
	Ogden	622	779	+157
	Provo	690	603	-87
Vermont	Burlington	520	528	+8
Washington	Olympia	512	418	-94
	Seattle	670	690	+20
	Wenatchee	664	367	-297
West Virginia	Morgantown	425	431	+6
	Parsons	381	385	+4
	Princeton	1,270	1,287	+17
Wisconsin	LaCrosse	118	119	+1
	Madison	7,840	8,769	+929
	Rhinelander	1,199	1,125	-74
Wyoming	Laramie	246	249	+3
Total		75,107	76,696	+1,589
Allocations to other agencies:				
Agricultural Research Service		470	470	- -
Animal and Plant Health Inspection Service		730	740	+10
Cooperative State Research Service		1,305	1,305	- -
Totals		77,612	79,211	+1,599

Project (12)

TREES AND TIMBER MANAGEMENT RESEARCH

		Permanent full-time positions
1974	$13,087,000	623
1975	14,535,000	652
1976	14,451,000	649
Change	-84,000	-3

A net decrease of $84,000 is proposed as follows:

(1) Increase of $167,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(2) Increase of $36,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

(3) Decrease of $287,000 due to discontinuance of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.

A decrease of 3 permanent full-time positions is also proposed.

Timber management research develops scientific knowledge of forest ecosystems with trees as a principal component and develops methods for culture of trees and management of forests for production of timber and for modification and improvement of man's environment. This includes:

(1) Development of cultural methods for timber and timber-related crops.

(2) Techniques of timber measurement.

(3) Techniques of forest management planning.

(4) Techniques for environmental tree culture.

(5) Research in forest genetics.

The core of this research is determining the proper culture for over a hundred different commercial timber species based on a thorough knowledge of their ecology and growth requirements. This research determines how the Nation's needs for timber and other forest benefits can be met on Federal, State, and private lands through measures such as brush control, forest establishment, protection from animals, stand culture, soil and site improvement, and reestablishment of tree species valuable for timber or environmental purposes.

Research is being accelerated on intensive culture of important timber types to help meet the Nation's growing needs for domestic forest products.

Timber management research also provides forest managers with reliable information on growth and yield of forests and on the influence of cultural practices on yield and quality of the stand.

This program includes research on methods of producing timber-related forest crops such as gum naval stores, maple sap, Christmas trees, and other income-producing natural products from forests.

Forest genetics research includes scientific study of variation and inheritance in trees and development of techniques for producing strains or hybrids which are superior in growth rate, wood quality, resistance to insects, diseases, and other damaging factors, or special value for use in environmental improvement.

Examples of Recent Accomplishments

Intensive timber culture shows increasing promise of accelerating the growth of trees throughout the United States. More intensive forest management will be necessary if future demands for pulpwood, construction lumber, and fine hardwoods are to be met. Fertilizing diverse species such as black cherry in Pennsylvania, Douglas-fir in Oregon and Washington, and Southern pine in Louisiana and Florida

increased tree growth by as much as 145 cubic feet per acre per year. Fertilization plus cultivation and/or irrigation increased growth up to 16-fold in Southern pine plantations of Mississippi and Florida. These specific research results, combined with three key summary publications which give specific fertilizer prescriptions for several forest types, provide land managers with valuable aids for planning operational forest fertilization programs.

A new guide for black walnut culture. A black walnut symposium held at Carbondale, Illinois, attracted over 300 participants to discuss recent research progress and recommendations for efficient use of walnut resources. Symposium proceedings are now being used as a guide by those interested in growing black walnut as a crop tree.

New management guide for northeastern and western spruce-fir stands. A new cultural and regeneration guide has been developed for balsam fir, and black, red, and white spruce stands in the Northeast. Included are specific treatments for different management objectives. New guidelines are also available to aid forest managers in the Rocky Mountain region in developing cutting practices needed to convert old-growth Engelmann spruce, subalpine fir forests, into managed stands, while maintaining continuous forest cover in travel influence zones and areas of high recreational value or outstanding scenic beauty. The cutting practices recommended, some of which involve making small cleared openings, can be used to create stands favorable to increased water yields, improved wildlife habitat, and integrated timber production with other uses.

Disease resistant white pine developed for the Northwest. The most serious pest of western white pine in the Northwest is white pine blister rust. A breeding program for improved disease resistance based on more than 20 years of intensive research in Idaho and Washington has recently yielded encouraging results. A group of more than 3,000 second-generation hybrid white pine seedlings, all bred from rust-resistant parents, showed 66 percent resistance to blister rust after 2-1/2 years exposure to infection in the nursery and 88 percent resistance after an additional 2 years exposure in field plantings. In contrast, only 19 and 24 percent of control trees escaped infection. Orchards have been established to produce rust-resistant western white pine sufficient to plant 15,000 to 20,000 acres of mixed conifers per year.

Hardy scotch pine provenances available for planting in Northern Great Plains shelterbelts. A wider variety of pine species is needed for planting in shelterbelts and windbreaks and for Christmas tree culture in the Northern Great Plains to meet the different requirements of the region. In the search for new species, a large collection of scotch pine from sources in Eastern Europe and across Russia have been tested for 10 years at three locations in North Dakota and one in eastern Nebraska. Trees from western Poland and Southeastern Russia gave the best overall performance. Trees from these sources are now recommended for Northern Great Plains plantings.

New management guide for sand pine on problem sites in the Southeast. A handbook has been developed to aid in planting sand pine on several million acres of droughty southeastern soils. This handbook synthesizes research information on the distribution, wood properties, seed development, nursery practices, site characteristics, planting, and management of two varieties of sand pine. It provides land managers in Florida, Georgia, South Carolina, and North Carolina with multiple use options to improve productivity of dry sandhill areas.

Better pine seed sources identified for the South. The importance of selecting proper seed sources for outplantings has been demonstrated at several locations in the South. In Arkansas, trees from 34 of 36 selected loblolly pine seed sources grew faster than local trees. Trees from a selected South Carolina source produced 30 percent more wood volume than local trees with only a slight loss in resistance to fusiform rust. In Mississippi, large differences in growth rate were evident among shortleaf pine trees from different geographic sources. This genetic variation associated with geographic seed sources other than the local source can be used to increase volume growth in Southern pine plantations.

Pine hybrids developed in cooperative PL 480 research. By selective tree breeding, it is possible to produce hybrid forest trees which grow fast and are resistant to insects, diseases, and drought. In order to accomplish these goals, the PL 480 program supported 7 years of research in Greece to learn how to make very difficult crosses among important pine species of the Mediterranean region and among exotic species. By carefully selecting certain pine races and by treating pollen with x-rays, several possible rare pine hybrids (e.g., scotch pine x red pine, Heldreich pine x red pine) were obtained. This information, especially the identification of compatible races, can be directly applied in accelerating the U. S. pine hybridization program.

Woody plant seed handbook now available. A major new book on "Seeds of Woody Plants in the United States" was issued by the Forest Service in 1974. This 883-page handbook describes seeds of more than 800 species of trees and shrubs and provides directions for fruit collection, seed storage, and nursery practices. Collaborating in preparation of the volume were over a hundred scientists from the Forest Service, Agricultural Research Service, Soil Conservation Service, and cooperating universities, and State agencies. Chapters on general seed biology, genetic improvement, pollen handling, and seed testing, as well as photographs make this volume an excellent reference and working tool for foresters, wildlife managers, nurserymen, students, and home owners.

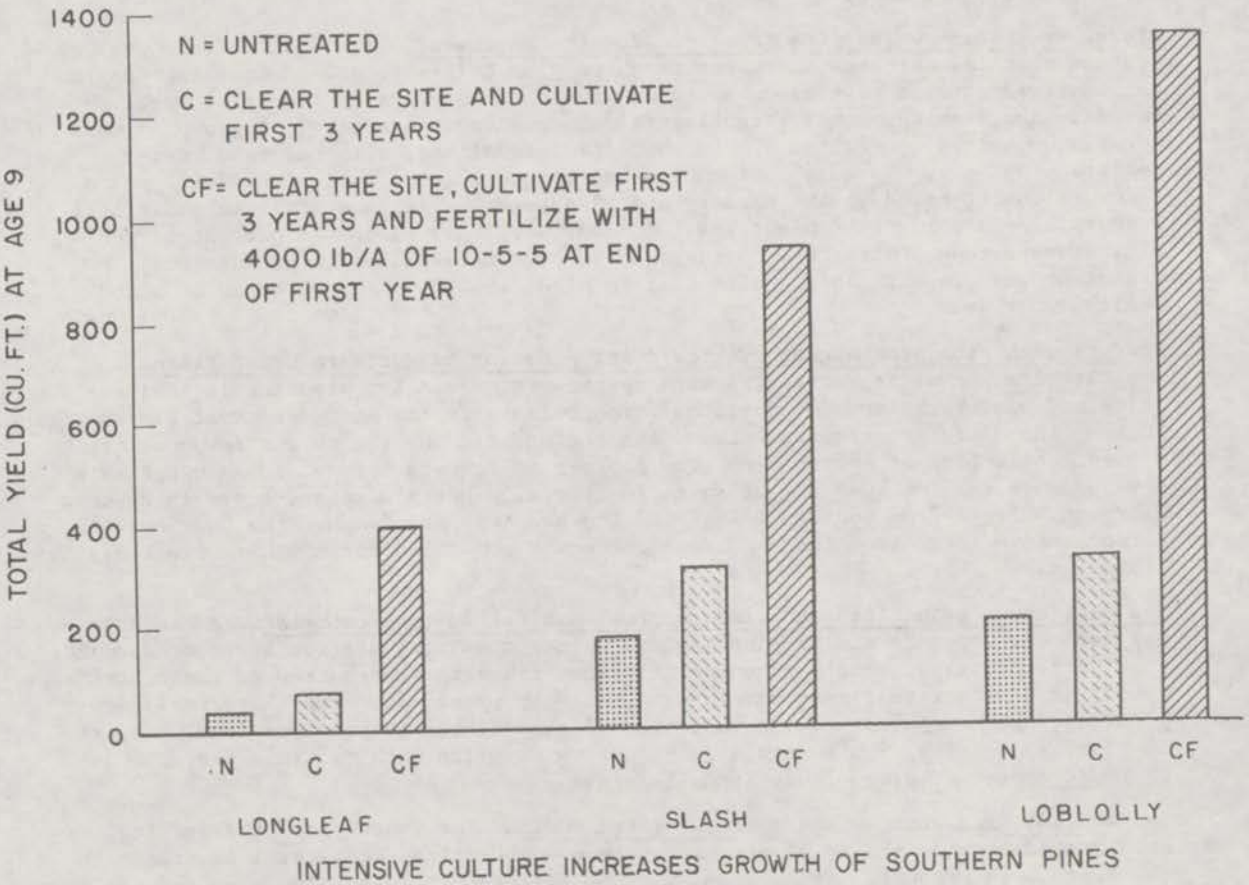


Figure 12

Project (13)

FOREST WATERSHED MANAGEMENT RESEARCH

		Permanent full-time positions
1974	1/ $7,010,000	283
1975	8,527,000	281
1976	7,282,000	269
Change	-1,245,000	-12

A net decrease of $1,245,000 is proposed as follows:

(1) Increase of $45,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(2) Increase of $10,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

(3) Decrease of $1,300,000 due to discontinuance of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.

A decrease of 12 permanent full-time positions is also proposed.

Watershed management research is conducted to:

(1) Develop methods and techniques for managing forest and forest-related watersheds to protect and improve soil and water quality, improve the yield and timing of water flows, and restore and rehabilitate degraded landscapes.

(2) Develop adequate means of protecting soil and water resources, especially on fragile or unstable soils, while forest and forest-related lands are being managed for other products and services.

(3) Provide basic knowledge of vegetation, soil, water, and atmospheric relationships in wildland and related forest areas.

Examples of Recent Accomplishments

Virginia pines show promise for revegetating extremely acid mine spoils. Many areas strip-mined for coal have serious revegetation problems. Research evaluated progeny from 10 natural stands of Virginia pine scattered throughout Tennessee and Kentucky. After two growing seasons, survival, total height and second-year growth were significantly better for some progeny indicating potential for breeding to produce new varieties specifically adapted to acidic mine spoils.

Soil ripping is an effective, but temporary, measure to control runoff and erosion on semi-arid watersheds. Ripping (deep plowing) of soil increases soil infiltration rates and normally is effective for 3 to 5 years in reducing erosion and runoff from semi-arid watersheds. Scientists in New Mexico have shown that re-ripping previously treated areas is a low cost way to extend effectiveness of this treatment until vegetation can become established. Soil ripping reduces runoff by about two-thirds compared with untreated areas.

Damage by avalanches can be reduced by predicting avalanche occurrence. In the Front Range of Colorado, 19 weather factors were analyzed to determine their correlation to avalanches. A storm index, based on intensity of precipitation and windspeed, was developed to predict the number of avalanches on 23 paths. The analysis showed that the storm index could be used to predict with 70 to 80 percent accuracy whether a slope will avalanche. Although developed for Colorado, these predictive aids should be adaptable to many mountain areas.

1/ For comparability, $700,000 is shown under Surface environment and mining rather than under Forest watershed management research as appropriated.

Pennsylvania strip-mine banks. Quick revegetation of strip-mine spoil banks is needed to control erosion and protect watersheds. A study in Pennsylvania indicates that lime is the most essential amendment for establishment of red pine and Japanese larch on anthracite coal-mine spoils. Without lime, natural vegetation, planted trees and shrubs have not survived on these spoils. Mulching improved overall survival, but commercial fertilizers had no effect on survival and only a slight effect on growth.

Project (14)

WILDLIFE, RANGE, AND FISH HABITAT RESEARCH

		Permanent full-time positions
1974	$4,482,000	158
1975	5,224,000	151
1976	5,196,000	150
Change	-28,000	-1

A net decrease of $28,000 is proposed as follows:

(1) An increase of $911,000 to accelerate research to guide implementation of the Endangered Species Act.

(2) Increase of $60,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(3) Increase of $12,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

(4) Decrease of $1,011,000 is based on the discontinuation of research in which there was a minimum of funds invested in order to finance research requirements under new legislation.

A decrease of one permanent full-time position is also proposed.

The Nation's forests, ranges, and associated waters provide a home for millions of livestock, game animals, and countless numbers of other forms of fish and wildlife. These populations provide recreation, food, fiber, and income for a broad spectrum of the Nation's population. Mammals, birds, and fish vary widely in social and ecological requirements, but the basic ecological processes are common to all species; all are products of the habitat.

Land management decisions must be made with full knowledge of the probable impact upon habitat productivity. Where competitive uses exist and where habitat values are low, more effective management systems are essential for rapid improvement in the years ahead.

Wildlife, range, and fish habitat research is conducted to maintain and increase the diversity and productivity of fish and wildlife, as well as domestic livestock populations by:

(1) Defining the habitat requirements of the many species of fish, wildlife, and livestock.

(2) Assessing the impact of alternative land use practices upon habitat values.

(3) Generating strategies to optimize the habitat values of forests and ranges.

Examples of Recent Accomplishments

Forest resource inventory applied to forage resources for livestock and deer. A pilot test in southwestern Louisiana demonstrated the feasibility of inventorying multiple forest resources. Advantages in programing the forest resource survey as an inventory vehicle include regular measurement intervals that provide precise trend information and an integrated look at forest potentials--timber, range and

wildlife habitat. This development will assist in the assessments required in the Forest and Rangeland Renewable Resources Planning Act of 1974 (PL 93-378).

Recreation benefits can be enhanced by management of songbird habitats around campgrounds. In the Southern Appalachians, density and diversity of breeding birds is related to structure of the vegetation. Density of breeding songbirds can be increased in forest-like recreation areas by opening the tree canopy to encourage shrub growth. To maintain a large number of bird species, however, both conifers and hardwoods should be retained when opening the stands. In park-like recreation areas, shrubs should be maintained or planted in groups rather than as scattered plants.

Logging-fisheries interrelationships in the West are clarified. Relationships between logging and fisheries have been complicated by the lack of readily available summaries of current technical knowledge. To provide managers with this capability:

(1) An annotated bibliography of 278 publications was developed.

(2) A state-of-the-art summary was prepared.

(3) Key gaps in the information base were identified to guide future research.

Elk and campgrounds can be compatible. Research in Wyoming has shown that campgrounds and other recreation facilities should be constructed at least a half-mile from open meadows and slopes where elk prefer to feed. Traffic to and from recreation facilities is less disturbing to elk than the out-of-vehicle activities at campgrounds. Elk frequently feed undisturbed in open parks within 100 yards of road traffic, particularly where parks are shielded from roads by coniferous forest.

Project (15)

FOREST RECREATION RESEARCH

		Permanent full-time positions
1974	$1,326,000	45
1975	1,251,000	50
1976	1,267,000	50
Change	+16,000	- -

An increase of $16,000 is proposed as follows:

(1) Increase of $13,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(2) Increase of $3,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

No change in permanent full-time positions is proposed.

Growing public demands for forest-based recreation opportunities has generated new needs for both public and private developments, new forest management requirements, new conflicts among users and resource managers, and new threats to both the quality of recreational experiences and the health of the natural resource base. Conflicts and environmental impacts faced by today's resource managers were quite rare only 25 years ago.

Forest recreation research is being conducted to:

(1) Develop new and better resource management practices which enhance amenity values.

(2) Understand man's need for, and use of, forests, open space, and parks as environments for living, working, and recreation.

(3) Analyze and understand the interactions between people and forests, social and economic factors underlying outdoor leisure activities, esthetic quality of forest landscapes and environmental situations, trends in recreation uses, use and management of wilderness areas, and alternative management strategies for meeting the public demands.

(4) Identify interrelations among recreation, environmental amenities, and other uses of forests and open spaces--and find better ways of coordinating these uses.

The program includes research on planning and management of forest-based recreation opportunities, landscape scenery, preservation and use of wilderness resources, and the interactions between man and his forest environment.

Examples of Recent Accomplishments

Proper design of campsites minimizes adverse environmental impacts. Many parts of the Boundary Waters Canoe Area in Minnesota receive heavy visitation. Campsites must be designed and located to withstand pressures of use and still serve the visiting public. A study of newly developed campsites over a 5-year period showed that most changes in vegetation and soil happened during the first 2 years. This, and other findings, were incorporated into design and management plans that will meet the needs of recreationists and minimize environmental impacts of camping.

Factors in quality of wilderness experience identified. Most visitors prefer solitude to human contacts in wilderness use. Studies in Montana, Utah, Wyoming, and Minnesota showed that solitude was more important at campsites than on the trails. Large parties had a strong adverse effect on quality of the wilderness experience. Litter was disliked even more than crowding. Limits on party size, encouragement of off-season use, and zoning are suggested management actions.

Wilderness permits provide contacts for better management of wilderness use. Recreation studies show that the mandatory wilderness permit is a useful management tool. Use of the permit creates an opportunity for the wilderness manager to assist visitors in trip planning and to influence visitor choice. It also generates better information on wilderness use to aid in future management.

Trees provide important amenities in residential areas. The shade, wind moderation, privacy screening, homes for wildlife, and pleasing scenery provided by trees are reflected in increases in the market values of residential properties by as much as 15 to 27 percent of the appraised land value. Results of studies in Amherst, Massachusetts, indicate that trees retained when wooded land is developed for homesites contribute from 7 to 27 percent of appraised land values.

Project (16)

SURFACE ENVIRONMENT AND MINING

		Permanent full-time positions
1974	1/ $1,700,000	6
1975	2,264,000	6
1976	2,298,000	6
Change	+34,000	- -

An increase of $34,000 is proposed as follows:

(1) To provide for the full year costs of the pay increase effective in fiscal year 1975, $26,000.

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1/ For comparability, includes $1 million appropriated for SEAM under Forest land management and $700,000 under Forest watershed management research.

(2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $8,000.

No change is proposed in permanent full-time positions.

SEAM is a research, development and application program designed to provide an innovative array of economical and effective surface mine reclamation alternatives which satisfy environmental, energy, and mineral needs. The direct end product of SEAM will be several demonstration areas where new techniques in planning of mining operations, new methods of rehabilitation, and environmental stewardship criteria can be evaluated and displayed.

SEAM is an on-the-ground problem-solving effort initially concentrated in the West. SEAM is a partnership undertaking with land managers, the mining industry and political jurisdictions. It will be closely coordinated with ongoing Federal and State programs.

The development and application funds for SEAM in fiscal year 1976 will be used to begin meeting five basic objectives:

Objective A. Determine and evaluate the effects of mining and related activities on forest and rangelands.

Objective B. Determine and evaluate the effects of mining and related developments on forest users and associated communities.

Objective C. Develop alternative methods to minimize adverse impacts of mining on the forest and range environment and on forest users and associated communities.

Objective D. Test, evaluate, analyze, and demonstrate alternative reclamation and planning methods

Objective E. Develop recommendations and disseminate findings.

Specifically the work includes:

(1) Assembling existing inventory data, operationalizing remote sensing techniques and classifying and stratifying areas in land units to predict environmental responses.

(2) Assembling and systematizing appropriate socio-economic data to determine cultural effects of mining on rural communities.

(3) Acquiring equipment for collecting, processing, and planting seed or plants on disturbed areas and demonstrating sound techniques for mechanically stabiliz ing areas disturbed by mining.

(4) Use of research results at plant material centers to develop, propogate, and disseminate seed and plant materials.

(5) Development of guides and criteria to evaluate quality of mining plans.

(6) Providing guides, technical service and demonstration of equipment and methods to industry and land managers.

(7) Establishing large-scale demonstrations to test and illustrate improved reclamation and mine planning techniques.

Project (17)

FIRE AND ATMOSPHERIC SCIENCES RESEARCH

		Permanent full-time positions
1974	$7,847,000	223
1975	8,213,000	244
1976	8,299,000	244
Change	+86,000	- -

An increase of $86,000 is proposed as follows:

(1) Increase of $67,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(2) Increase of $19,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

No change in permanent full-time positions is proposed.

The fire research program develops knowledge and technology to reduce forest fire costs and to protect the quality and productivity of American forests. This research is designed to aid all private, State, and Federal agencies in protecting 1.2 billion acres of forest and watershed lands. Although research has aided in bringing about a major percentage reduction in total forest fire losses, increasing use of forest lands makes the forest fire control job more difficult than ever before.

Opportunities to make substantial savings through development of new technology for fire prevention and control are clearly evident. Timber supply impacts from fire loss now average 1.5 million acres of commercial forest land burned per year. Environmental quality degradation results from fires on some five million acres on all classes of lands each year. The current fire research program is focused on:

(1) Fire prevention.
(2) Fire hazard reduction.
(3) Fire control systems.
(4) Prescribed burning smoke management.

Examples of Recent Accomplishments

Night helicopter program--now operational. Methods and systems for using aircraft in nighttime fire suppression operations have been tested operationally. This has involved the adaptation of night vision aids for night helicopter flying. With the aid of light amplification goggles combined with an infrared floodlight, pilots have operationally dropped fire retardants on several fires at night. This system also holds great promise for other forest protection and management activities.

Infrared fire maps successfully telemetered. A long-existing communications gap between the infrared fire mapping system in an overflying aircraft and the fire control forces on the ground has been bridged. It is now possible to telemeter high quality imagery of the fire from the monitoring aircraft to the fire control center on the ground. This enables ground crews to take immediate action on spot fires and provides current information to aid in selecting fire control strategy.

Progress in fuelbreak management. Communities confronted with the dual plagues of the threat from wildfires and the problem of disposing of their sewage effluent will benefit from recent research findings. In a 4-year experiment carried out by Forest Service scientists in cooperation with scientists at the University of California in Riverside, it has been found that treating an area of undisturbed mountain chaparral with sewage effluent establishes a fire resistant greenbelt which is maintained as long as the treatment continues. No change has been observed in ground water quality as a result of this treatment.

Improved fire model helps save emergency funds. Scientists recently achieved a significant breakthrough in the simulation of forest fire behavior by modeling the variable role which live or green fuels play in forest fire spread. A major improvement in the relation between predicted fire activity and actual fire severity resulted with models using the new fuel values. The National Fire Danger Rating System, which governs where emergency presuppression funds are used, is based on model-generated relationships between weather and fire behavior. This research will permit these funds to be used more effectively.

New techniques to stop incendiarism. Incendiarism is one of the major causes of forest fires in many of the Southern States. A comprehensive cooperative research program to identify the factors which underlie incendiary practices in those areas where the problem is most acute has recently been completed. The research, conducted by Louisiana State University, under a Forest Service grant, led to the creation of a "contractor program" in high fire incidence communities. The contractor, selected on the basis of criteria developed by Louisiana State University research, serves to convey fire prevention and correct fire use information to his friends, neighbors, and associates in the community. The contractor program has produced significant decreases in incendiarism where it has been tested.

Project (18)

FOREST INSECTS AND DISEASE RESEARCH

		1/ Permanent full-time positions
1974	$10,761,000	444
1975	17,883,000	459
1976	18,145,000	459
Change	+262,000	- -

An increase of $262,000 is proposed as follows:

(1) To provide for the full year costs of the pay increase effective in fiscal year 1975, $217,000.

(2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $45,000.

No change in permanent full-time positions is proposed.

The mission of forest insects and disease research is to provide the knowledge and technology to:

(1) Define, measure, and evaluate the impacts of destructive insects and diseases on forest resources, and on wood in storage and use.

(2) Detect, assess, and predict changes in the occurrence of these pests.

(3) Reduce their numbers and impacts to tolerable levels by means of control techniques and management strategies that are ecologically sound, economically practical, and environmentally acceptable.

Current research is strongly oriented toward developing comprehensive integrated pest management systems for major forest insects and diseases.

Special emphasis is being given to:

(1) Continuing work on the special forest insect program started in 1975. Intensive research and development will lead to control of three of the most important forest pests--the Douglas-fir tussock moth, Southern pine beetle, and the gypsy moth.

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1/ Excludes following positions in other agencies that receive funds from the Forest Service: 1975, 13; 1976, 13.

(2) Understanding and quantifying the full impacts of pests such as the gypsy moth, Southern pine beetle, Douglas-fir tussock moth, mountain pine beetle, spruce budworms, dwarf mistletoes, fusiform rust, and root rots.

(3) Finding and developing specific microbial and other biological agents for control of the gypsy moth, Douglas-fir tussock moth, root rots, and similar major pests.

(4) Finding and developing safer chemicals for suppressing or manipulating pest populations. These materials include systemic fungicides; insect attractants, repellents, deterrents, and other behavioral chemicals; as well as more selective, nonpersistent toxicants.

(5) Developing specialized equipment and improved techniques for efficient and safe application of pesticidal materials to individual trees and to forested areas.

(6) Developing technology to detect, monitor, evaluate, and reduce adverse environmental effects of air pollutants in forest and related ecosystems.

(7) Integrating control techniques and strategies into pest management systems that utilize pest-resistant varieties and cultural, chemical, and biological methods.

Examples of Recent Accomplishments

Several chemicals show promise against Douglas-fir tussock moth. The recent outbreak of Douglas-fir tussock moth was the most damaging on record and emphasized the need for improved pest management techniques. Dylox and Sevin-4-oil were pilot tested in 1974 and showed considerable promise as effective controls for tussock moth larvae. Five of fifteen new insecticides applied to single trees gave over 90 percent control. In addition, the moth's natural sex attractant has been identified, synthesized, and field tested. This attractant appears to be highly effective for detecting future tussock moth outbreaks. Continuing research will provide the data necessary for registering new chemicals to replace DDT.

Fusiform rust causes $30 million impact annually in Southeastern forests. A new procedure for determining the impact of forest pests has been developed and tested for fusiform rust on slash and loblolly pines. This procedure is based upon the fact that the market destiny of the tree largely determines the dollar impact of the pest. Because no single price reflects the full range of potential values, a useful approximation of wood value per cubic foot was developed by weighing and blending the different stumpage prices for various products. By combining the blended price with recent survey data, the monetary impact of fusiform rust was estimated to be $30 million annually in the Southeastern United States.

Attractant chemicals identified for the principal insect carrier of Dutch elm disease. Scientists have identified a combination of three chemical attractants used by the smaller European elm bark beetle, the principal carrier of Dutch elm disease. The chemical bouquet is released by virgin females as they feed on elm trees. Scientists have isolated the attractant chemicals and have successfully used them for detecting and quantifying elm bark beetle populations in Michigan and California. The use of attractant-baited sticky traps combined with other techniques, such as sanitation practices and pesticide applications, offers promise of reducing the incidence of Dutch elm disease.

Wood destroying beetles can now be identified and controlled. In some areas of the United States, especially the Southeast, more than half the houses have insect or decay damage. Frequently, extensive damage is unrecognized or undetected by the homeowner. In addition, some pest control operators are unable to identify the cause of damage and consequently often apply improper or unnecessary controls. Three recently published papers now provide homeowners and pest control operators with the information necessary to prevent, detect, and control beetle damage.

Method developed for detecting decay in wood. The need for a technique of detecting defect in standing trees and wood in service has long been recognized. Too often a tree falls or a pole fails before defect symptoms become apparent. To detect such defects, a probe has been developed which, when inserted into a 3/32 diameter hole bored in wood, will measure the resistance of the surrounding material to an electrical current at the probe tip. This resistance as registered on an ohm meter indicates whether the material being tested is sound, discolored, or decayed. This technique has widespread applicability because of its accuracy, maneuverability, and ease of operation.

Aerial application of virus effective against gypsy moth. Aerial application of the nucleopolyhedrosis virus (NPV) produced substantial larvae mortality and foliage protection. Sufficient data now exists to support the issuance of an experimental use permit for further field testing. This is an important step in the registration procedure which, if completed, will make this virus the first NPV ever registered for forest insect control. Work is continuing on improved production techniques needed to yield material required for the necessary additional safety and efficacy testing.

Christmas tree disease controls developed. Several serious foliage diseases damage Christmas trees and often make them unmerchantable. Cultural and chemical control methods have been developed for three of the most serious of these diseases in the North Central States. Methods include the use of disease resistant tree varieties, techniques to prevent the transport of diseases on nursery stock into healthy plantations, and protective chemical sprays. Use of these control methods will help protect the $210 million annual Christmas tree industry.

Superior mycorrhize help trees grow on harsh sites. Establishment of plants on harsh sites, such as acid strip mine spoils, is a difficult but important challenge. Mycorrhize or fungus-roots are formed by specialized fungi that surround or invade root tissue and modify the root environment in a way beneficial to both partners. Combined efforts of our scientists in Georgia, Oregon, Nebraska, and Wisconsin have identified species of mycorrhizal fungi that offer superior abilities to improve water and nutrient absorption by plant roots and to protect them from common soil borne pathogens. Preliminary observations indicate that trees with these fungi on their roots are able to grow in areas where they would not normally live. Innoculating seedlings with these fungi has great potential for revegetating sites where surface disturbance has severely altered the soil characteristics.

Project (19)

FOREST PRODUCTS UTILIZATION RESEARCH

		Permanent full-time positions
1974	$9,723,000	444
1975	10,297,000	431
1976	11,147,000	438
Change	+850,000	+7

An increase of $850,000, with an increase of 7 permanent full-time positions, is proposed as follows:

(1) To accelerate research on developing an industrially suitable technology for producing a structural particleboard that will be useful as a substitute for sheathing plywood and improving sawmill techniques that are now being applied on a massive scale, $681,000.

(2) To provide for the full year costs of the pay increase effective in fiscal year 1975, $159,000.

(3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $10,000.

The research program called "STRETCH" will help assure adequate supplies of home building materials at favorable cost, while reducing net energy demand and environmental impact. Project STRETCH envisions an array of activities, including new and improved processing systems, automated lumber grade and quality assessment, and improved engineering utilization. Structural particleboard development and research to improve sawmilling techniques are part of STRETCH. Through full application of the STRETCH concept, a given volume of products should be obtainable from one-third less timber, and additional timber savings will result from improved utilization in engineered construction.

Within the goals of supplying timber and improving environments, the focus of forest products utilization research is on:

(1) Producing the knowledge and technology necessary for improved utilization practices.

(2) Extending the service life of wood in use.

(3) Utilizing wood and paper wastes.

(4) Developing technologies to produce or conserve energy in forestry related activities.

Examples of Recent Accomplishments

Improved utilization

Accurate Pacific Northwest log valuation possible. Information on Pacific Northwest lumber and plywood grade yield for Douglas-fir sound timber and cull logs now makes possible accurate valuation and provides manufacturers vital information for making processing decisions. With major market changes occurring, accurate value-forecasting procedures are now available to Government or private sellers for Douglas-fir timber. Newly published cull log grading guides are especially useful because more of this material now enters the market.

Better bridges in Alaska. Recent advances in bridge decking design have been used in bridges serving the Alaska pipeline system. Vertically laminated bridge decking fastened with adhesives was demonstrated at the Forest Products Laboratory to outperform similar decking fastened with nails. Plant fabrication of glued laminated bridge decking greatly reduces on-site labor and makes this construction advantageous for remote areas.

Hawaiian eucalyptus utilized. Hawaiian-grown eucalyptus has been shown to be well suited for general construction as well as for pallets. By using newly discovered criteria, brittlewood, a limiting defect, can be segregated out. Finding ways to use one of the most commonly found Hawaiian trees and improving its processing means the cost of Hawaiian lumber used in construction and pallets can be greatly reduced.

Southern pine stumps used for pulp. An economical system for harvesting Southern pine stumps and taproots has been developed. The equipment severs the lateral roots and pulls the trees, including the taproots, from the soil like carrots and leaves the site in condition for replanting. The prototype machine has been field-tested successfully. The recovered stump material, comprising about 20 percent of the merchantable weight of bark free stems was shown suitable for kraft pulping.

New Wood Handbook for construction industry. The new Wood Handbook is an information source for engineers, architects, and builders selecting and using wood in structures. It contains information on physical, chemical, and mechanical properties of wood and how these properties are affected by variations in the wood itself. Design considerations are given to lumber, plywood, structural sandwich and laminated members, along with fasteners, gluing, fire resistance, finishing, preservation, and thermal insulation.

Extending the service life of wood in use

New wood preservative for marine piling. The wood preserving industry can greatly extend the service life of marine piling by using new dual treatments of creosote and copperchrome-arsenate. Other research provides new groundline treating methods to extend the life of poles and fence posts. This is of vital importance to the wood preserving industry which must offer long product service life to offset lower initial costs for competing untreated construction materials.

Pulpchip storage life extended. The pulp industry can prevent deterioration of pulpchip piles during extended storage by adding Vapam with 2,4-dinitrophenol to the piles. The pulp industry is shifting from stored wood to wood chips as more and more sawmill residues are being used, or as field-chipped wood makes its way to the papermill. Because these mills must keep up to several months of wood in reserve, yield losses through microbial activity have cost as much as several million dollars a year in some installations. This new method now assures mill managers that chips can be stored with confidence.

Utilizing wood and paper wastes

Better hardboard produced with less pollution. The hardboard industry can produce dry-formed hardboards with better physical and mechanical properties by regulating wood fiber pH more closely than previously. Dry-formed hardboard requires less water use in production. Adoption of the process will decrease water pollution control, costs, and give consumers a better product.

Residue used in house construction. A major research effort has brought a new forest residue-based product, COM-PLY, closer to industrial application and utilization. Construction standards now exist for this new product. Laboratory made COM-PLY has been tested and evaluated against construction standards. Demonstration houses using COM-PLY have been built. This product offers great potential for extending our timber supply and meeting future residential construction material needs.

Lake States and Southern species in particleboard. Recent studies indicate satisfactory particleboards can be manufactured from "natural mixes" of diverse species. In Minnesota, Wisconsin, and Michigan these species include tamarack, aspen, and paper birch; in the South these would include mixtures of oak, gum, and hickory. By being able to fully utilize all species from any given forest area, the greatest opportunities for soundly based forestry programs will occur.

Production and conservation of energy in forestry related activities

Increased yield, less energy with roughwood pulping. A four percent increase in total yield can be obtained for the same energy inputs by pulping unbarked wood (roughwood). This represents a potential savings of more than $4.00 per ton of paper produced and a proportionate reduction in energy use.

Project (20)

FOREST ENGINEERING RESEARCH

		Permanent full-time positions
1974	$1,547,000	50
1975	1,629,000	55
1976	1,643,000	55
Change	+14,000	- -

An increase of $14,000 is proposed as follows:

(1) Increase of $11,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(2) Increase of $3,000 to provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313.

No change in permanent full-time positions is proposed.

Forest engineering research provides direct support to managers and planners through development of essential new forest management technologies. Timber harvesting, transportation planning, and mechanization of other forest practices have engineering components that require systematic study. Solutions have far-reaching implications affecting many forest management practices.

Forest engineering research has the following objectives:

(1) Producing the knowledge and least cost technology necessary for more efficient and environmentally sound harvesting and transportation practices.

(2) Developing engineering criteria for minimizing environmental and socio-economic impacts of mineral development on forest and related lands.

(3) Developing the engineering systems needed to permit more effective and economical reforestation and silvicultural improvement operations.

Examples of Recent Accomplishments

Improved design of logging balloons. Wind tunnel tests of logging balloons' aerodynamic characteristics were conducted to permit design of optimum balloon logging systems. Results will be applied to provide low environmental impact balloon harvesting systems for difficult terrain in the Pacific Northwest.

Cable logging systems for Appalachia. Five cable systems, thought to be feasible for Appalachian use, were analyzed with respect to equipment features, environmental factors, and road requirements. A method of comparing cable systems was developed. This method of comparison and analysis gives the Appalachian logger a basis to select the cable logging system which best fits his situation. It will also assist him in selecting the environmentally "better" cable systems.

Tree shakers shown to be safe for pines. Mechanical tree shakers provide an effective method of collecting cones, but the influence of the resulting high-frequency vibrations on future tree growth and cone production has been unknown. A recently completed study of slash pine trees in central Louisiana showed that mechanical shaking did not adversely affect either flower and cone production or height and diameter growth. Tree shakers can therefore be safely used to harvest the $1.5 million crop of slash pine seeds.

Removal of bark from wood chips of Western species found to be feasible. Commercially available portable chippers permit whole-tree utilization in the production of wood chips. Removal of bark from chips must be possible before the system will be widely accepted by the pulp and paper industry. Research on processing and conditioning treatments in debarking Western hemlock, Douglas-fir, red alder, and bigleaf maple showed that at least 90 percent of the wood fiber could be recovered. This is considered to be very acceptable by the industry.

Project (21)

FOREST RESOURCES EVALUATION

		Permanent full-time positions
1974	$3,649,000	160
1975	3,918,000	167
1976	5,559,000	182
Change	+1,641,000	+15

An increase of $1,641,000, with an increase of 15 permanent full-time positions, is proposed as follows:

(1) To prepare and submit the initial assessment and program, and to develop techniques for acquiring and analyzing resource data for subsequent

assessments as required by the Forest and Rangeland Renewable Resources Planning Act (PL 93-378), $1,516,000.

(2) To provide for the full year costs of the pay increase effective in fiscal year 1975, $111,000.

(3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $14,000.

Forest and rangelands in the United States vary greatly in productivity, ownership patterns, availability for industrial as well as noncommercial use, and opportunities for management. Accelerating changes in renewable resource conditions result from changing land uses, timber growth, resource harvesting, and losses to destructive agents. Demands on renewable resource lands for a wide range of uses are also increasing. Consequently, up-to-date inventories of forest and rangeland renewable resources are essential to guide programs for production of forest and rangeland resource values.

The Forest and Rangeland Renewable Resources Planning Act calls for a Renewable Resources Assessment that must consider all forest, range and related lands, in the United States, estimated to include 1.5 billion acres. The assessment, which must be transmitted to Congress on December 31, 1975, in 1979, and every 10 years thereafter, is to include, in part:

(1) An analysis of present and anticipated uses, demand for, and supply of renewable resources, including a consideration of the international resource situation.

(2) An inventory of present and potential renewable resources, and opportunities for improving their yield of goods and services, with estimates of the investment costs and returns to the Federal Government.

To provide the data and information base needed for the assessment, the Act expanded the scope of Section 9 of the McSweeney-McNary Act of May 22, 1928, which authorizes and directs resources evaluation research (formerly forest survey). It now requires a current, comprehensive survey and analysis of:

(1) Present and prospective conditions of, and requirements for, renewable resources of forest and rangelands of the United States.

(2) Supplies of these resources.

(3) Present and potential productivity of the land.

(4) Other facts necessary and useful in determination of ways and means to balance demands for and supplies of these resources.

Examples of Recent Accomplishments

Thirty-six million acres of commercial forest land were reinventoried during fiscal year 1974. Field surveys were conducted in Alaska, California, Iowa, Louisiana, Kentucky, Oregon and West Virginia. At this rate, timberlands of all States are being reinventoried on an average of every 17 years.

New resource evaluation studies completed. An ongoing responsibility of resources evaluation research is to analyze the condition of the resources and the suitability of possible treatments. Two recently completed studies, one in the southeastern United States and the other in the Douglas-fir region of the Pacific Northwest, make use of inventory data to assess the extent, condition, productive capacity, and the current and prospective treatment of those lands which are to provide timber and related forest values. The procedures require the development of criteria for identifying and ranking opportunities for increasing prospective yields from these lands.

Surveys monitor industrial activity. Pulpwood production in the South increased to 47.1 million cords in 1973, an all-time high. Three-fourths of the volume was roundwood harvested from standing timber. The remainder was residue from sawmills and other wood-using plants. In the Northeast, veneer used for furniture and panels now exceeds the use of veneer for containers. These veneers are produced almost entirely from hardwoods.

Public informed of forest resource situation. Reports appraising the forest resource situation for Delaware, Louisiana, Missouri, New Jersey, North Carolina and Washington were published to provide the public with a basis for resource management and utilization decisions.

Project (22)

FOREST ECONOMICS AND MARKETING RESEARCH

		Permanent full-time positions
1974	$3,653,000	137
1975	3,871,000	137
1976	3,924,000	137
Change	+53,000	- -

An increase of $53,000 is proposed as follows:

(1) To provide for the full year costs of the pay increase effective in fiscal year 1975, $44,000.

(2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $9,000.

No change in permanent full-time positions is proposed.

Forest economics and marketing research seeks to improve economic benefits from use of the Nation's forest land for timber and other values, including water, recreation, range, and wildlife. Research is conducted on:

(1) Uses and demands for wood products and other forest values to provide necessary inputs for assessing future demands on the Nation's forest lands.

(2) Reducing costs in timber growing, harvesting, processing and product distribution to achieve more efficient use of available timber resources.

(3) Timber growing and multiple use management policies and practices, including impacts on environmental quality, to provide guidelines for development of forest resources.

(4) Evaluations of new technology to help guide implementation of a wide range of technical advances.

Collectively, the results of forest economics and marketing research constitute a major source of information for formulating forest management and use policies and practices at the national, State, and local levels.

Examples of Recent Accomplishments

Methods for integrated planning of road construction and timber harvest. A technique for determining optimal schedules of road building and timber harvesting now enables planners to design a forest development program to obtain the most benefits with the least investment of funds. The method schedules period-by-period road link construction with timber sales, taking into account the revenue gained from timber sales, advantages in securing regeneration, construction costs, and logging and hauling costs. Provisions enable the planner to insure that the solution meets sustained yield and other constraints. For the first time a computerized procedure is available to help integrate the planning of the Forest Service's two most significant programs in terms of revenue and funds invested.

Role of timber in important Oregon timber-producing county. As a guide for county planning, Forest Service scientists in the Pacific Northwest used an input-output model to identify the prospective impacts on the economy of Douglas County, Oregon, from changes in future timber harvesting. The study showed that approximately two-thirds of the economic base of Douglas County is dependent on the actions of the area's timber processing industries, the U.S. Forest Service and the Bureau of Land Management. The model used in the analysis provides a basis for testing the effectiveness of new industries, or changes in existing industries, in offsetting impacts of changes in timber-oriented industries.

Economic feasibility studies of "inwoods" pulp chip production from small tree and forest residues in the Southern Rocky Mountain Region. A study at two locations, one in Colorado and one in Arizona, analyzed the physical, economic, and environmental feasibility of using a portable debarking-chipping machine to convert whole trees--bole, tops, and limbs--into chips for fiber products. The results indicate that, with some modifications in the system employed, "inwoods" chipping may become a feasible technique to supply pulp chips and reduce logging residues in the Rocky Mountains.

Chaparral conversion potential in Arizona. An economic analysis determined that conversion of 90 of some 139 potentially convertible chaparral areas to improved range was justified. On these areas the benefits included additional water runoff, more animal unit months of grazing, and a 34 percent reduction in firefighting cost. The net average return was $2.51 per acre. In making the analysis, only 60 percent of any potential area was planned to be converted, allowing for establishment of a pattern of vegetation acceptable from the wildlife habitat and esthetic viewpoints.

Effect of intensive management on allowable cuts. New analyses show how allowable cut from a forest changes when the management plan includes responses to growth stimulating treatments, changes in the area of commercial forest, or shifts in the age-class distribution of the forest inventory. Allowable cut responds more to changes in long-term growth (as in regenerating stands to genetically improved stock) where there is high initial inventory, age classes are well distributed, growth increases can be cut from thinning, and growth increases are not too large. Short-term growth increases (such as in timber stand improvement) are most effective where initial inventory is low and not well distributed.

Forest Research

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302		1974 actual	1975 estimate	1976 estimate
	FOREST SERVICE--Direct obligations:			
	Personnel compensation:			
11.1	Permanent positions	39,258	43,167	43,305
11.3	Positions other than permanent	2,932	2,727	2,923
11.5	Other personnel compensation	131	100	100
	Total personnel compensation	42,321	45,994	46,328
	Personnel benefits:			
12.1	Civilian	3,994	4,347	4,626
21.0	Travel and transportation of persons	2,039	2,095	2,100
22.0	Transportation of things	683	750	800
23.0	Rent, communications, and utilities	1,598	2,400	2,600
24.0	Printing and reproduction	601	1,000	1,000
25.0	Other services	10,110	14,987	15,708
26.0	Supplies and materials	1.495	1,600	1 600
31.0	Equipment	1,799	1,900	1,900
32.0	Lands and structures	85	50	50
42.0	Insurance claims and indemnities	3	.....	.....
	Subtotal direct obligations	64,728	75,123	76,712
95.0	Quarters and subsistence charges direct	-16	-16	16
99.0	Total obligations, Forest Service	64,712	75,107	76,696

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302		1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Reimbursable obligations:				
	Personnel compensation:			
11.1	Permanent positions	651	525	525
11.3	Positions other than permanent	134	89	89
11.5	Other personnel compensation	11	.....	.....
11.8	Special personal services payments	5	.....	.....
	Total personnel compensation	801	614	614
	Personnel benefits:			
12.1	Civilian	74	54	54
21.0	Travel and transportation of persons	65	43	43
22.0	Transportation of things	19	25	25
23.0	Rent, communications, and utilities	60	28	28
24.0	Printing and reproduction	3	3	3
25.0	Other services	308	1,462	1,468
26.0	Supplies and materials	75	75	75
31.0	Equipment	40	10	10
41.0	Grants, subsidies, and contributions	.....	6	.....
	Subtotal reimbursable obligations	1,445	2,320	2,320
	.....			
	Total obligations, Forest Service	66,157	77,427	79,016

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302	1974 actual	1975 estimate	1976 estimate
ALLOCATION ACCOUNTS			
Personnel compensation:			
11.1 Permanent positions	.....	213	223
11.3 Positions other than permanent	.....	15	15
Total personnel compensation	.....	228	238
Personnel benefits:			
12.1 Civilian	.....	20	20
21.0 Travel and transportation of persons	.....	52	52
22.0 Transportation of things	.....	23	23
23.0 Rent, communications, and utilities	.....	42	42
25.0 Other services	.....	351	351
26.0 Supplies and materials	.....	321	321
31.0 Equipment	.....	163	163
41.0 Grants, subsidies, and contributions	.....	1,305	1,305
Total obligations, allocation accounts	.....	2,505	2,515
99.0 Total obligations	66,157	79,932	81,531
Obligations are distributed as follows:			
Department of Agriculture:			
Forest Service	66,157	77,427	79,016
Animal and Plant Health Inspection Service	.....	730	740
Agricultural Research Service	.....	470	470
Cooperative State Research Service	.....	1,305	1,305

Personnel Summary

Identification code 05-96-1100-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE			
Direct:			
Total number of permanent positions	2,593	2,633	2,639
Full-time equivalent of other positions	376	350	353
Average paid employment	2,830	2,894	2,903
Reimbursable:			
Total number of permanent positions	42	33	33
Full-time equivalent of other positions	16	11	11
Average paid employment	58	44	44
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions	$11,174	$11,794	$11,794
ALLOCATION ACCOUNTS			
Total number of permanent positions	0	13	13
Full-time equivalent of other positions	0	2	2
Average paid employment	0	14	14
Average GS grade	.....	8.60	8.60
Average GS salary	.....	$15,371	$15,366

Analysis by Activities
Budget Authority -- in thousands

Activity	FY 1976 Estimate	7/1 9/30/76 Estimate
Forest research		
Forest and range management research:		
Trees and timber management research	$14,451	$4,254
Forest watershed management research	7,282	2,570
Wildlife, range, and fish habitat research	5,196	909
Forest recreation research	1,267	516
Surface environment and mining	2,298	1,636
Total, Forest and range management research	30,494	9,885
Forest protection research:		
Fire and atmospheric sciences research	8,299	1,658
Forest insects and disease research	18,145	4,254
Total, Forest protection research	26,444	5,912
Forest products and engineering research:		
Forest products utilization research	11,147	2,820
Forest engineering research	1,643	364
Total, Forest products and engineering research	12,790	3,184
Forest resource economics research:		
Forest resources evaluation	5,559	1,556
Forest economics and marketing research	3,924	1,013
Total, Forest resource economics research	9,483	2,569
Total, Forest research	79,211	21,550

Justification for Transition Period July 1-September 30, 1976

An estimate of $21,550,000 is requested for forest research programs which is about 27 percent of proposed funding at the fiscal year 1976 budget estimate of $79,211,000.

The program level for the transition period represents the continuation of programs at the fiscal year 1976 level. The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

These funds will be used to continue a broad program of research in the transition period at levels similar to fiscal year 1976 in the following activities (dollars in thousands):

Trees and timber management	$4,254
Forest watershed management	2,570
Wildlife, range, and fish habitat	909
Forest recreation	516
Surface environment and mining	1,636
Fire and atmospheric sciences	1,658
Forest insects and disease	4,254
Forest products utilization	2,820
Forest engineering	364
Forest resources evaluation	1,556
Forest economics and marketing	1,013
Total	21,550

Projects (23) - (26)

GEOGRAPHIC BREAKDOWN OF APPROPRIATIONS

State and Private Forestry Cooperation

	1975 estimate	1976 estimate	Change
		(in thousands)	
Alabama	$886	$896	$10
Alaska	594	601	7
Arizona	135	136	1
Arkansas	781	790	9
California	1,634	1,655	21
Colorado	445	451	6
Connecticut	198	200	2
Delaware	104	105	1
District of Columbia	1,220	1,232	12
Florida	1,110	1,123	13
Georgia	1,073	1,055	-18
Guam	29	63	34
Hawaii	108	109	1
Idaho	552	559	7
Illinois	292	296	4
Indiana	229	231	2
Iowa	118	120	2
Kansas	343	347	4
Kentucky	715	723	8
Louisiana	872	883	11
Maine	755	764	9
Maryland	468	474	6
Massachusetts	337	341	4
Michigan	920	931	11
Minnesota	622	630	8
Mississippi	936	947	11
Missouri	827	837	10
Montana	422	427	5
Nebraska	300	304	4
Nevada	421	426	5
New Hampshire	226	229	3
New Jersey	414	419	5
New Mexico	194	197	3
New York	826	836	10
North Carolina	1,074	1,087	13
North Dakota	96	97	1
Ohio	420	425	5
Oklahoma	464	469	5
Oregon	914	925	11
Pennsylvania	807	817	10
Puerto Rico	152	154	2
Rhode Island	101	102	1
South Carolina	884	894	10
South Dakota	187	189	2
Tennessee	802	812	10
Texas	663	671	8
Utah	317	322	5
Vermont	196	199	3
Virgin Islands	16	16	- -
Virginia	915	926	11
Washington	983	995	12
West Virginia	412	417	5
Wisconsin	1,141	1,153	12
Wyoming	213	215	2
Rescission of enacted appropriation pending (R75-9)	4,921	- -	-4,921
Total	34,784	30,222	-4,562

Project (23)

COOPERATION IN FOREST FIRE CONTROL

		Permanent full-time positions
1974	$20,079,000	51
1975	25,135,000	56
1976	20,257,000	56
Change	-4,878,000	- -

A net decrease of $4,878,000 is proposed as follows:

(1) To provide for the full year costs of the pay increase effective in fiscal year 1975, $7,000.

(2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $36,000.

(3) A decrease of $4,921,000 of funds appropriated in 1975. However, proposed 1976 program level is comparable to 1975 since this amount is proposed for rescission in 1975.

No change is proposed in permanent full-time positions.

Protection of non-Federal land from destruction by fire is primarily a State and local responsibility. The Federal role is one of providing technical support and financial assistance as incentive to the States in their effort.

Protection from fire is a necessity for the development of all forest resources--water, timber, special forest products, wildlife, forage, and recreation. The Cooperative Forest Fire Control program is authorized by the Clarke-McNary Act of 1924. During the first five-year period of the program (1924-1928) losses from wildfire were high with an average of 262 fires and 58,800 acres burned per million acres protected. This compares with 158 fires and 2,474 acres burned per million acres protected during the most recent five-year period (1969-1973). Another positive factor is the increase in protected area from 284 million acres in 1924 to over 626 million acres in 1973. Protection costs have grown from $1.9 million in 1924 to over $136 million in 1973. Much of the increase in fire control costs is due to the greater use of more effective and expensive new types of equipment and higher operating costs. There has been a significant increase in the use of aircraft in fire detection and suppression which is costly.

This program enables the State forestry agencies to organize and train effective fire control organizations. Air and water pollution will be lessened by reducing the number of wildfires, especially the large (over 300 acre) disaster-type fires. These are the most destructive as well as the most costly fires. A new fire protection analysis is now underway. Information obtained from this thorough analysis will help to better direct fire organizations efforts in coming years. Law enforcement training will be increased to provide a better means to reduce man-caused fires. Increased emphasis will be made in use of fuels management, including the use of prescribed fire as a tool in the overall fire prevention effort. Results of the national fire prevention study, currently in progress, will be used in implementing an action program.

A formula that applies uniformly to all 50 State cooperators is used in distributing the Federal funds. The formula recognizes the two factors most directly related to fire control:

(1) Extent of the fire protection job.

(2) State and local performance as represented by expenditures.

Each of these factors is given equal weight. The half based on need is termed the "regular allotment" and is determined by a periodic fire protection analysis. A new analysis is currently in progress. The half based upon expenditures uses the average of the most current 3-year State and private expenditures and is termed the "extra allotment." The total of these two parts becomes the Federal allotment to each State. A sliding scale is used to reduce the total allotment to bring total State payments equal to available funds.

The table following this section shows proposed financing for fiscal year 1976 compared with fiscal years 1974 and 1975.

Examples of Recent Accomplishments

The effect of keeping well trained and equipped fire control forces for fast initial attack was demonstrated in calendar year 1973. There were only 1,086,000 acres burned on lands protected by State fire organizations. This is the lowest number of acres burned ever recorded under the C-M 2 Program--a fine tribute to the 50th Anniversary of the Clarke-McNary Act.

States continue to use modern aircraft in their fire programs. Nebraska used 35 aerial applicators for fire suppression and Hawaii used a helicopter for surveillance and apprehension in an arsonist case. Massachusetts began a full scale aerial detection system and Florida, during a serious fire period, used contract aircraft and State-owned Beavers to drop 82,000 gallons of fire retardant. Arkansas began evaluation of aircraft for use in aerial detection and Oregon used a National Guard infrared aerial mapping plane to map forest fires. Once again, Pennsylvania contracted both helitankers and light aircraft for detection and suppression. Also, they used large air tankers for air retardant drops.

COOPERATIVE FOREST FIRE CONTROL

	State and Private Funds Expended FY 1974	Federal Allotments FY 1974	Federal Allotments FY 1975	Federal Allotments FY 1976 1/ (estimate)
Alabama	$1,948,085*	$582,200	$575,700	$575,700
Alaska	3,750,024*	387,400	409,400	409,400
Arizona	222,660	65,200	65,200	65,200
Arkansas	1,852,752*	531,200	533,000	533,000
California	33,088,041*	1,243,100	1,209,100	1,209,100
Colorado	1,848,930*	297,700	337,200	337,200
Connecticut	199,041*	138,000	134,000	134,000
Delaware	80,982	50,400	61,100	61,100
Florida	8,311,208*	706,700	697,900	697,900
Georgia	7,004,065*	735,500	715,700	715,700
Guam	- -	- -	16,000	47,000
Hawaii	190,777*	65,700	65,700	65,700
Idaho	834,548*	388,600	378,600	378,600
Illinois	434,519*	162,100	166,900	166,900
Indiana	306,287	101,100	105,300	105,300
Iowa	122,754*	69,200	66,900	66,900
Kansas	884,310*	242,200	255,700	255,700
Kentucky	1,655,584*	435,100	431,100	431,100
Louisiana	3,228,476*	635,300	625,800	625,800
Maine	2,062,305*	501,000	503,100	503,100
Maryland	974,513*	281,500	279,300	279,300
Massachusetts	598,377*	242,200	235,800	235,800
Michigan	3,279,431	625,300	617,100	617,100
Minnesota	883,027*	396,800	386,100	386,100
Mississippi	3,493,727*	628,500	628,200	628,200
Missouri	1,338,764	531,200	524,100	524,100
Montana	1,044,626*	234,700	253,300	253,300
Nebraska	817,163*	207,800	220,400	220,400
Nevada	881,549	228,100	226,000	226,000
New Hampshire	340,923*	134,700	136,000	136,000
New Jersey	1,000,882*	295,600	299,700	299,700
New Mexico	314,124	88,300	86,900	86,900
New York	2,012,513*	537,600	532,900	532,900
North Carolina	4,108,762*	662,200	651,900	651,900
North Dakota	36,901*	38,200	58,000	58,000
Ohio	535,798*	228,600	222,900	222,900
Oklahoma	739,614*	298,200	313,500	313,500
Oregon	5,079,954*	660,100	647,800	647,800
Pennsylvania	3,748,693*	506,000	512,200	512,200
Rhode Island	311,192	76,300	80,700	80,700
South Carolina	3,440,253*	613,000	610,800	610,800
South Dakota	359,613*	102,000	114,100	114,100
Tennessee	2,535,917*	607,400	594,500	594,500
Texas	1,641,258*	443,300	444,500	444,500
Utah	521,075	158,000	161,100	161,100
Vermont	109,746*	76,400	74,000	74,000
Virginia	2,279,647*	565,200	565,800	565,800
Washington	5,655,418*	663,300	653,700	653,700
West Virginia	699,824*	258,100	257,100	257,100
Wisconsin	2,887,923*	616,000	608,400	608,400
Wyoming	284,570*	149,200	157,300	157,300
Administration, inspection, prevention and special services	- -	1,587,500	1,706,500	1,718,500
Rescission pending (R75-9)	- -	- -	4,921,000	- -
Total	119,981,125	20,079,000	25,135,000	20,257,000

* Estimated expenditures. Actual fiscal year 1974 expenditures not available.

1/ While the amount available to a State may, if the allotment is small, exceed previously computed expenditures by that State, the actual payment to a State never exceeds State and private funds expended by or under the control of the State.

Project (24)

COOPERATION IN FOREST TREE PLANTING

		Permanent full-time positions
1974	$332,000	5
1975	336,000	4
1976	337,000	4
Change	+1,000	- -

An increase of $1,000 is proposed to provide for full year costs of the pay increase effective in fiscal year 1975. No change in permanent full-time positions is proposed.

This program provides financial and technical assistance to cooperating States in the production, acquisition, and distribution of tree seed and planting stock for forest and windbarrier plantings on non-Federal lands Seed and trees thus furnished at modest cost form the backbone of current public forestation efforts which contribute to increased timber production and the enhancement of environmental values, including public recreation, wildlife habitat, and pollution abatement.

Program funds are used to assist the States in meeting the cost of seed extraction, seedling production, nursery maintenance, and other operations.

The procedure for allotment of funds provides for a project approach with funds to be allocated on the basis of projects which will be designed to stimulate more efficient nursery operations. Proposals to date include projects such as:

(1) Containerized seedling production.

(2) Mechanized seedling harvest.

(3) Development of improved methods for seedling storage.

The number of trees that States shipped to landowners during each of the past four fiscal years follows:

Year	Federal-State Coop. Program--Seedlings
1970	494,941,000
1971	550,797,000
1972	552,997,000
1973	581,090,000

Examples of Recent Accomplishments

Production of improved genetic quality seedlings. Improved genetic quality forest tree seed is becoming available for seedling production at a rapidly increasing rate. For example, during the 1973-74 season, seed orchard seedling stock amounted to over 100 million seedlings, which means that about 140,000 acres will be growing more wood than would be the case if regular seeds were used.

REGULAR ALLOTMENTS TO STATES

	FY 1975	FY 1976
Arizona	$6,000	$6,000
Colorado	7,000	7,000
Delaware	2,500	2,500
Guam	5,000	8,000
Idaho	10,000	10,000
Kansas	10,000	10,000
Montana	10,000	10,000
Nebraska	8,000	8,000
Nevada	12,000	12,000
New Jersey	2,500	2,500
New Mexico	10,000	10,000
North Dakota	12,000	12,000
Oklahoma	9,000	9,000
Puerto Rico	2,500	2,500
Rhode Island	2,000	2,000

REGULAR ALLOTMENTS TO STATES--continued

	FY 1975	FY 1976
South Dakota	10,000	10,000
Utah	10,000	10,000
Wyoming	4,000	4,000
	132,500	135,500

SPECIAL PROJECT ALLOTMENTS TO STATES

	FY 1975	FY 1976
Alabama (Auburn University weed control)	$27,000	
California (sprinkler system, spray rig, seed drill)	7,000	
Connecticut (seedling harvester)	4,000	
Idaho (transplanter, container planting, nursery study)	20,100	$6,500
Maryland (special seed collection)	4,500	
Mississippi (seedling harvester)	3,400	
New York (seedling storage)	4,600	
Pennsylvania (cone harvester, hardwood dewinger)	3,100	
Puerto Rico (irrigation system)	2,500	
Texas (weed control)	4,000	4,000
Vermont (seed production)	1,800	5,000
Virgin Islands (nursery improvements)	2,500	2,500
Virginia (nursery soil fumigation)	2,000	

Implementation of containerized seedlings research. Research concerning containerized seedlings is being implemented into practice at great speed. To cite but one example, four years ago only 900,000 containerized seedlings were grown in the entire Pacific Northwest. In 1974 more than 40 million containerized seedlings were produced. These offer many advantages over bare-rooted stock; i.e., shorter production time, less space needed, better survival, and more flexibility in planting time and species used.

Project (25)

COOPERATION IN FOREST MANAGEMENT AND PROCESSING

		Permanent full-time positions
1974	$5,052,000	26
1975	5,590,000	31
1976	5,605,000	31
Change	+15,000	- -

An increase of $15,000 is proposed as follows:

(1) To provide full year costs of the pay increase effective in fiscal year 1975, $8,000.

(2) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $7,000.

No change in permanent full-time positions is proposed.

Through State-Federal cooperative programs, technical assistance is provided to private nonindustrial woodland owners, loggers, wood-using industries, communities, and organizations concerned with the protection, management and use of forest resources. On-the-ground assistance is provided by State professional personnel with training and expert backstopping by Federal specialists.

Three-fifths of the productive forest land in the United States, or 296 million acres, is in the hands of nonindustrial private owners. Most of them lack the technical forestry skills required to manage the lands to provide their share of the Nation's needs for forest products and services. The program provides technical assistance to these landowners through State service foresters to increase the flow of timber and nontimber products and to improve environmental values.

Technical assistance is given to loggers, sawmill, and other plant operators to improve logging, processing and business methods to improve the supply of softwood lumber and plywood through the reduction of wood waste and increased utilization of wood residue.

The program of technical assistance to sawmill operators through the sawmill improvement program and closely related activities will continue in fiscal year 1976. The emphasis is on expanding and improving the capability of the States in forest products utilization activities. An estimated 200-mill analyses will be completed this year and in fiscal year 1976.

State forestry personnel provide specialized forestry assistance to Rural Development Committees throughout the Nation. State personnel serve on State committees, sub-State units, and rural communities, thereby strengthening the overall effectiveness of local rural development efforts.

Technical assistance is provided in cooperation with the State forestry agencies in 50 States, Puerto Rico, the Virgin Islands, and Guam. Significant thrusts of the program are to develop opportunities for private consulting foresters to establish and expand their forestry assistance operations.

Base level Federal appropriated funds are distributed to the States by formula which is applied to each State's need and performance.

(1) Need is based on the number of small woodland owners in the State and the acres of commercial forest owned expressed as a percentage of the total in the Nation.

(2) Performance is based on State funds expended in excess of Federal funds. The excess is determined for each State and then expressed as a percentage of the total excess for all States.

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(3) The average of the need and performance percentages for each State represents the State's share of total funds available for distribution

(4) Each State is guaranteed an amount it can match up to $30,000

Major work accomplishments are shown in the following table:

Major Benefits	Unit	FY 1974	FY 1975
Woodland owners assisted	No.	90,000	100,000
Forest products operators assisted 1/	No.	6,500	7,200
Incidental forestry assistance	No.	193,000	180,000
Area of woodland involved	Acres	7,500,000	7,200,000
Volume harvested under improved practices 2/	MBF	353,000	300,000
	Cords	1,703,000	1,000,000
Area of timber stand improvement 2/	Acres	138,400	373,000
Area planted or seeded 2/	Acres	733,500	344,000

1/ The reporting in this category reflects only those operators assisted which resulted in known product output increases. Assistance is reflected in incidental assistance when product output is unknown.

2/ The reported figures reflect the changing program thrust and increased emphasis on stand management in woodland owner assistance.

Examples of Recent Accomplishments

Assistance to an owner of 5 acres of woods helped him realize over $6,000 in stumpage payments. The first assist to this landowner through the service forestry program was provided 30 years ago. Mention is made of this assist to signify the importance of continued management on even small tracts of forest land.

In Indiana, the State utilization specialist analyzed the operation of a hardwood sawmill. Adoption of only part of his recommended changes has increased the mills production by 10 percent, or 1 million board feet per year, valued at $200,000. This added production, provides at least one extra job in the mill and three in the woods. Cost of the assist was $700.

In 1969, a landowner in Washington State wanted to sell his timber for $27,500. The service forester discussed with him the importance of letting thrifty trees grow to maturity. As a result, less than three-fourths of the stand was harvested in 1973 which brought in $68,000. The landowner now has good access roads, the area is reforested and there are still 400 thousand board feet of standing timber on the site.

An analysis of an Illinois sawmill by a team of State and Federal wood utilization specialists resulted in increased use of local, low-quality timber, added employment of local workers and improved working conditions. The mill's production was more than doubled primarily through elimination of down time.

In 1972 a management forester for the South Carolina Forestry Commission made a forestry examination on a privately owned 35-acre tract near Early Branch, South Carolina. Later, a State forester representative, who had recently been assigned to this area, was requested to help carry out the practices recommended and provide current data for obtaining an FHA farm improvement loan. The forester provided the value data needed for the loan, advised on how to prescribe burn, and marked for a thinning on 12 acres. With assistance from the Commission, the landowner burned the area as prescribed, and sold the marked pulpwood (72 cords of pine and 12 cords of hardwood) for a total of $639.36. He used this and proceeds from his FHA loan to further improve his operations and purchase an adjacent small tract to increase the economic return from his farm and forestry operations.

The following table shows proposed financing in fiscal year 1976 compared with fiscal years 1974 and 1975:

	FY 1974	1975 estimate	1976 estimate
Alabama	$111,200	$126,300	$126,300
Alaska	23,000	23,000	23,000
Arizona	20,000	32,900	32,900
Arkansas	92,300	112,500	112,500
California	78,300	75,600	75,600
Colorado	52,800	56,000	56,000
Connecticut	33,900	33,900	33,900
Delaware	22,000	30,000	30,000
Florida	189,600	216,000	216,000
Georgia	207,700	219,400	219,400
Guam	- -	8,000	8,000
Hawaii	28,000	28,000	28,000
Idaho	39,100	37,700	37,700
Illinois	69,100	73,000	73,000
Indiana	62,500	63,000	63,000
Iowa	42,500	42,000	42,000
Kansas	35,100	35,500	35,500
Kentucky	155,000	165,600	165,600
Louisiana	89,400	105,300	105,300
Maine	105,000	110,300	110,300
Maryland	78,200	80,300	80,300
Massachusetts	41,900	41,600	41,600
Michigan	126,200	141,800	141,800
Minnesota	97,500	101,800	101,800
Mississippi	126,000	152,700	152,700
Missouri	150,100	163,200	163,200
Montana	53,100	51,200	51,200
Nebraska	36,100	35,900	35,900
Nevada	33,000	31,800	31,800
New Hampshire	52,600	55,400	55,400
New Jersey	42,900	43,100	43,100
New Mexico	43,600	46,100	46,100
New York	167,600	172,300	172,300
North Carolina	258,000	283,200	283,200
North Dakota	30,000	30,300	30,300
Ohio	106,100	122,900	122,900
Oklahoma	37,600	49,000	49,000
Oregon	63,600	61,400	61,400
Pennsylvania	147,300	172,900	172,900
Puerto Rico	30,300	30,500	30,500
Rhode Island	25,000	25,000	25,000
South Carolina	121,600	136,800	136,800
South Dakota	32,300	31,600	31,600
Tennessee	92,500	99,500	99,500
Texas	84,600	105,400	105,400
Utah	33,800	40,600	40,600
Vermont	82,600	96,700	96,700
Virgin Islands	13,000	13,000	13,000
Virginia	202,600	225,200	225,200
Washington	72,200	94,700	94,700
West Virginia	81,100	82,200	82,200
Wisconsin	193,600	189,300	189,300
Wyoming	32,600	34,000	34,000
Reserve	- -	24,000	24,000
Total to States	4,245,700	4,659,400	4,659,400
Forest Service administration	806,300	930,600	945,600
Total appropriation	5,052,000	5,590,000	5,605,000

Project (26)

GENERAL FORESTRY ASSISTANCE

		Permanent full-time positions
1974	1/ $2,718,000	76
1975	3,723,000	95
1976	4,023,000	98
Change	+300,000	+3

An increase of $300,000 is proposed as follows, together with an increase of 3 permanent full-time positions:

(1) To protect threatened and endangered species and their habitats as required under the provisions of the Endangered Species Act of 1973, $200,000.

(2) To provide for the full year costs of the pay increase effective in fiscal year 1975, $32,000.

(3) To provide for payment to General Services Administration the cost of space rental in accordance with PL 92-313, $68,000.

The increase of $200,000 will be used for the following activities required under the provisions of the Endangered Species Act of 1973 (87 Stat. 884):

(1) To work with State forestry and wildlife agencies and the Bureau of Sport Fisheries and Wildlife of the Department of the Interior to locate the habitat of endangered and threatened species.

(2) To modify the various forestry practices carried out under State-Federal programs to insure that actions do not jeopardize endangered or threatened species or result in the destruction or modification of their habitat.

(3) To train program personnel, both State and Federal, to achieve the foregoing objectives.

General forestry assistance funds are used to accomplish highly specialized forestry assistance not available through other Forest Service cooperative programs. A major portion of the funds is used to provide professional assistance to State forestry agencies, woodland owners, associations, and the wood industry to enhance rural community development and to achieve more efficient management, increase production, and improve processing of the Nation's timber resources.

General forestry assistance funds are used to provide expert forest resource management and use assistance in such activities as:

(1) Forest products utilization.
(2) Dissemination of forest research findings.
(3) Continuous forest inventory.
(4) Advisory management services provided to State forestry agencies, including organizational management training.
(5) Multiple use management.
(6) Forest hydrology.
(7) Wild and scenic river studies.
(8) Threatened and endangered species.
(9) Land use planning.
(10) Special studies.

Technical assistance is provided directly by the Forest Service or through specific agreements with State foresters, colleges, and/or private contractors.

1/ For comparability, $159,000 for Wild and Scenic River Studies on State and private lands is shown under this activity rather than under Soil and water management as appropriated.

Examples of activities currently being conducted are:

(1) Rural development and cooperative area land use planning. Special efforts are being made to involve State foresters in cooperative area land use planning and rural development. These efforts are directed toward improving the use of forest resource in all aspects of State and local planning and development. Forest planning and development provides a multitude of benefits to rural communities, such as:

(a) Employment for local workers.
(b) Recreation for resident and non-resident visitors.
(c) Adequate supplies of quality water.
(d) Raw materials such as timber and specialty products that will increase income and jobs.

(2) Wild and Scenic Rivers Act of 1968. The Forest Service has lead responsibility for the Department of Agriculture relating to studies under the Wild and Scenic Rivers Act of 1968. In addition to the rivers assigned to the Department, the Forest Service coordinates USDA input to Interior-led studies. For fiscal year 1976, some work remains on the original 17 Interior-led studies. In addition, a number of rivers have been proposed for detailed study, under Section 5(a) of Wild and Scenic Rivers Act (PL 90-542). Funds are used to carry out the full Federal responsibility and to augment the States' efforts under the Act. These activities are needed to fulfill the Nation's demand for a quality environment.

(3) Forest land aggregates. Many private nonindustrial forest landowners lack knowledge of forest management and marketing practices. Because of this, many of these ownerships are not managed to produce forest products beyond a level which accrues in unmanaged forest stands. A pilot test of aggregation to improve the effectiveness of technical assistance delivery and to provide management and marketing assistance to members of the aggregate organization through a private consulting forester is underway in Alabama.

(4) Forest products utilization. State and Forest Service personnel, working closely with private consultants and university staff members are extending the Nation's supply of forest resources by determining new and better uses for logging and milling residues and low quality trees. For example, the processing and merchandising of sawdust, bark, and even twigs and needles, has expanded dramatically since foresters began analyzing the benefits of using these materials for soil amendments and as a mulch.

Examples of Recent Accomplishments

Sawmill improvement program. Computerized studies by Forest Service-State forester teams have shown over 300 sawmill owners in the United States how they can stretch the timber supply by producing more lumber from each log.

Under the sawmill improvement program, 304 sawmills producing 3.9 billion board feet of softwood lumber have been evaluated since June 1973. The production of these mills represents 12 percent of the Nation's annual output of softwood lumber. An individual analysis was given each mill after the team analyzed operations, gathered data, and fed the information into computers. The analyses reveal that 13.5 percent more lumber, amounting to 526 million board feet, could be produced at these mills from the same volume of sawlogs by improved bucking and sawing methods. If these mills also installed computerized sawing systems, they could get 36 percent more lumber, or 1.4 billion board feet.

This program has proven to be the most cost-effective short-range means of increasing lumber production of any of the several timber production programs of the Forest Service.

Consulting foresters and engineers have praised the Forest Service and cooperating State foresters for the efficient way in which the program has been conducted. Further, the program has been strongly endorsed by the Sierra Club as an effective means of reducing wastes of natural resources and utilizing more of the wood residues that were previously disposed of in a polluting manner.

A mill owner in the West recently commented that he would have had to close down his mill in this time of soft markets were it not for the increased efficiency he has obtained through the sawmill improvement program.

A mill owner in Louisiana, wrote, "This analysis gave me a new perspective in sawmill efficiencies with which I was not familiar.... May I commend the Forest Service for this excellent program and urge each mill operator to take advantage of it."

Washington State. A forest products specialist in the West assisted a manufacturer of wood arrow shafts to improve quality and volume of output. Assistance was provided in redesigning drying facilities which enabled the manufacturer to increase production from 2 to 6 million arrows. In so doing, much greater utilization is being made of dead Port-Orford cedar and employment of local labor has increased.

Pennsylvania. A study of logging areas in a section of Pennsylvania showed that as much as 50 percent of the usable material, an estimated 75 million board feet of logs, was being left in the woods. A concentrated effort by specialists and service foresters demonstrated the feasibility of using and marketing products from this material. As a result, $1.2 million were invested in new and expanded manufacturing facilities providing markets for 9 million board feet of the wasted material.

Improved harvesting program. This program, implemented in fiscal year 1975, is designed to put more timber on the market through improved harvesting and utilization techniques. The program, which is being conducted through cooperating State foresters on a project basis, includes projects of the following nature:

(1) Improved timber availability and access.
(2) Multi-product logging.
(3) Improved felling and bucking.
(4) Utilization of recoverable wood from urban areas.
(5) Timber salvage.

A computer program will be incorporated to analyze the efficiency of felling and bucking based on data obtained from actual logging operations.

Dry kiln demonstration anniversary. The 100th Dry Kiln Demonstration was held in 1974 at the Forest Products Laboratory in Madison, Wisconsin. The sessions began in 1919. Over the years, 2,300 kiln operators have been trained in the best methods of drying wood. Millions of dollars have been saved by reducing wood loss and energy expenditures and improving product performance for the consumer. Demand on the part of industry has increased to the extent that two sessions are held annually and each session is over-subscribed far in advance.

Forest inventory assistance. A consulting forestry firm in southern Alabama has adopted a method proposed by the Forest Service to check, cruise and determine final timber volumes through the use of a multistage inventory system. When all trees designated for cutting are marked, it is only required that each tree is counted and stratified by species or type. Final volumes are determined with a multistage sampling. The first stage is the physical variation of the trees marked.

The second stage is the sample. They feel that this method is faster than other methods because markers do not have to determine the volume of each tree as it is marked. They need only to count it. Final volumes are determined by qualified foresters in a very short time with a high degree of accuracy.

State and Private Forestry Cooperation
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Direct obligations:			
Personnel compensation:			
11.1 Permanent positions	2,870	3,516	3,585
11.3 Positions other than permanent	105	98	112
11.5 Other personnel compensation	6	5	5
Total personnel compensation	2,981	3,619	3,702
Personnel benefits:			
12.1 Civilian	313	384	386
21.0 Travel and transportation of persons	444	470	475
22.0 Transportation of things	33	50	50
23.0 Rent, communications, and utilities	61	175	285
24.0 Printing and reproduction	106	70	70
25.0 Other services	1,510	532	391
26.0 Supplies and materials	94	100	100
31.0 Equipment	113	30	30
41.0 Grants, subsidies, and contributions	22,204	24,433	24,733
~~99.0~~ Total direct obligations, Forest Service	27,859	29,863	30,222

State and Private Forestry Cooperation
OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1100-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Reimbursable obligations:			
Personnel compensation:			
11.1 Permanent positions	39	24	24
11.3 Positions other than permanent	4	4	4
11.5 Other personnel compensation	8	2	2
Total personnel compensation	51	30	30
Personnel benefits:			
12.1 Civilian	3	3	3
21.0 Travel and transportation of persons	6	6	6
24.0 Printing and reproduction	12	12	12
25.0 Other services	480	539	539
26.0 Supplies and materials	38	10	10
Subtotal reimbursable obligations	590	600	600
99.0 Total obligations, Forest Service	28,449	30,463	30,822

Personnel Summary

Identification code 05-96-1100-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE			
Direct:			
Total number of permanent positions	166	186	189
Full-time equivalent of other positions	14	13	13
Average paid employment	168	194	197
Reimbursable:			
Total number of permanent positions	1	1	1
Full-time equivalent of other positions	0	0	0
Average paid employment	1	1	1
Average GS grade	8.61	8.61	8.66
Average GS salary	$14,322	$15,447	$15,174
Average salary of ungraded positions	$11,174	$11,794	$11,794

Analysis by Activities

Budget Authority -- in thousands

Activity	:FY 1976 :Estimate:	:7/1-9/30/76 :Estimate
State and private forestry cooperation:		
Cooperation in forest fire control	$20,257	$7,014
Cooperation in forest tree planting	337	50
Cooperation in forest management and processing	5,605	608
General forestry assistance	4,023	1,530
Total, State and private forestry cooperation	30,222	9,202

Justification for Transition Period July 1-September 30, 1976

An estimate of $9,202,000 is requested for State and private forestry cooperation programs which is about 30 percent of proposed funding at the fiscal year 1976 budget estimate of $30,222,000. The 30 percent level is required for the transition period because of agreements with States which are honored during these three months. The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

Through cooperative programs with State and local governments, forest industries, and private landowners, these funds will be used to protect and manage 631 million acres of forest and associated watershed land. Technical and financial assistance will be provided to improve fire control; to develop multiple use management so as to obtain optimum potential of forest resources; to improve harvesting, processing, and marketing of forest products; and to stimulate reforestation and timber stand improvement.

The activities proposed for funding are as follows (dollars in thousands):

Cooperation in forest fire control	$7,014
Cooperation in forest tree planting	50
Cooperation in forest management and processing	608
General forestry assistance	1,530
Total	9,202

Major work planned in the transition period follows:

Woodland owners assisted	20,000	
Forest products operators assisted	1,900	
Incidental forestry assistance	25,000	
Area of woodland involved	1,250,000	acres
Volume harvested under improved practices	50,000	MBF
	250,000	cords
Area of timber stand improvement	25,000	acres
Area planted or seeded	1,000	acres

COOPERATIVE RANGE IMPROVEMENTS

Appropriation, 1974	$700,000
Appropriation, 1975	700,000
Estimate, 1976	700,000

Part of the grazing fees from the National Forests, when appropriated, are used for revegetation of depleted rangelands, construction and maintenance of range improvements, rodent control, and eradication of poisonous plants and noxious weeds. These funds are advanced to and merged with the appropriation, Forest protection and utilization, subappropriation, Forest land management.

Section 12 of the Act of April 25, 1950, (Granger-Thye Act) provides that of the money received from grazing fees by the Treasury from each National Forest during each fiscal year there shall be available at the end thereof when appropriated by Congress an amount equivalent to 2 cents per animal month for sheep and goats and 10 cents per animal month for other kinds of livestock under permit on such National Forest during the calendar year in which the fiscal year begins.

Since figures for animal months permitted are not available until after more than one-half of the fiscal year for which funds are appropriated has elapsed, the 1976 appropriation request of $700,000 necessarily represents the best current approximation of the amount which will become available in the calendar year 1975 under the animal-months-permitted formula.

For calendar year 1973, the latest available figures, animal months permitted were 6,634,222 for cattle and horses, and 3,979,181 for sheep and goats. This calculates to $743,006 available under the formula.

Program and Financing (in thousands of dollars)

Identification code 05-96-5207-0-2-302	1974 actual	1975 estimate	1976 estimate
Program by activities:			
10 Advanced to forest protection and utilization (costs--obligations) (object class 25.0)	700	700	700
Financing:			
40 Budget authority (appropriation) (special fund)	700	700	700
Relation of obligations to outlays:			
71 Obligations incurred, net	700	700	700
90 Outlays	700	700	700

CONSTRUCTION AND LAND ACQUISITION

Appropriation, 1975	$31,337,000
Estimate, 1976	14,475,000
Change	-16,862,000
Adjustments to 1975 appropriation:	
Appropriation Act, 1975	30,908,000
Proposed supplemental for increased pay costs	429,000
Adjusted base for 1976	31,337,000
Estimate, 1976	14,475,000
Change	-16,862,000

SUMMARY OF INCREASES AND DECREASES
(On basis of adjusted appropriation--dollars in thousands)

	Increase or Decrease (-)			Total
	Amount	Permanent Full-time Positions	Total 1976 Estimate	Permanent Full-time Positions
Construction for fire, administration, and other purposes--The amount of $2,465,000 is programed to construct projects necessary to support forest land management activities.	$717	5	$2,465	35
Land acquisition, Weeks Act--Decrease is due to non-recurring cost of land acquisition.	-56	- -	1,525	11
All other--Decreases are due to non-recurring construction projects.				
Development of recreation-public use areas.	-4,365	-18	556	22
Water resource development construction.	-1,595	-23	639	2
Research construction.	-3,957	- -	- -	4
Pollution abatement.	-7,606	-45	9,290	299
Total	-16,862	-81	14,475	373

PROJECT STATEMENT
(On basis of adjusted appropriation)

Project	1974	1975 Estimate	1976 Estimate	Increase or Decrease (-) Pay Costs	Program
(1) Forest land management construction:					
(a) Development of recreation-public use areas	$1,075,000	$4,921,000	$556,000	$14,000	-$4,379,000
(b) Water resource development construction	169,000	2,234,000	639,000	14,000	-1,609,000
(c) Construction for fire, administration, and other purposes	1,103,000	1,748,000	2,465,000	59,000	658,000
(2) Research construction	5,708,000	3,957,000	- -	- -	-3,957,000
(3) Pollution abatement	17,738,000	16,896,000	9,290,000	183,000	-7,789,000
(4) Land Acquisition, Weeks Act	1,300,000	1,581,000	1,525,000	6,000	-62,000
Total appropriation	27,093,000	31,337,000	14,475,000	276,000	-17,138,000

PROJECT STATEMENT

(On obligation basis)

Project	1974	1975 Estimate	1976 Estimate	Increase or Decrease
(1) Forest land management construction				
(a) Development of recreation-public use areas	$2,909,683	$3,276,548	$4,046,000	$769,452
(b) Water resource development construction	1,805,030	2,552,720	639,000	-1,913,720
(c) Construction for fire, administration, and other purposes	2,224,803	1,769,293	2,465,000	695,707
(2) Research construction	4,123,581	3,582,933	3,375,000	-207,933
(3) Pollution abatement	28,788,565	24,466,159	9,290,000	-15,176,159
(4) Land Acquisition, Weeks Act	1,292,452	1,591,504	1,525,000	-66,504
Total obligations or estimate	41,144,114	37,239,157	21,340,000	-15,899,157
Unobligated balance brought forward	-26,818,271	-12,767,157	-6,865,000	5,902,157
Unobligated balance carried forward	12,767,157	6,865,000	- -	-6,865,000
Total available or estimate	27,093,000	31,337,000	14,475,000	-16,862,000
Supplemental appropriation	- -	-429,000		
Appropriation or estimate	27,093,000	30,908,000		

CONSTRUCTION AND LAND ACQUISITION

		Permanent full-time positions
Appropriation, 1974	$27,093,000	572
Appropriation, 1975	31,337,000	454
Estimate, 1976	14,475,000	373
Change	-16,862,000	-81

A net decrease of $16,862,000, with a decrease of 81 permanent full-time positions, is proposed as follows:

(1) Increase of $658,000 to construct projects necessary to support forest land management activities.

(2) Increase of $276,000 to provide for the full year costs of the pay increase effective in fiscal year 1975.

(3) Decrease of $17,734,000 due to non-recurring construction projects.

(4) Decrease of $62,000 due to non-recurring cost of land acquisition.

The program provides for the construction and improvement of buildings, utilities, other physical facilities estimated to cost more than $25,000, and land acquisition throughout the National Forests and National Grasslands. The financing for the numerous relatively minor construction projects is provided by the operating and research programs of which such minor construction items are an integral part.

(1a) Development of recreation-public use areas (An appropriation decrease of $4,365,000, with a decrease of 18 permanent full-time positions. On the basis of program level, there will be an increase of $769,452 from the 1975 level of $3,276,548. Projects recommended for deferral in 1975 will be constructed in 1976.)

(1b) Water resource development construction (An appropriation decrease of $1,595,000, with a decrease of 23 permanent full-time positions. On the basis of program level, there will be a decrease of $1,913,720 from the 1975 level of $2,552,720.)

GOAL: The Forest Service goal is to manage the recreation resource on National Forest lands to best serve the steadily increasing numbers of Americans seeking inspiration, enjoyment, and relaxation in the outdoors.

To meet this objective, items 1(a) and 1(b) will provide recreation and interpretive facilities on National Forest System lands to meet the most critical demands for diverse forest-based outdoor recreation opportunities. Design and construction will stress preserving environmental values, which make up a quality experience, and the needs of all people including the physical, economical, and socially disadvantaged. The most urgent and expanding urban needs will be served congruent with contributing to rural community stability.

The proposed program level will be matched to those projects reflecting the highest order of relative priority. The following activities are proposed with fiscal year 1976 funds:

	No. of Sites	
	Recreation-Public Use	Water Resource Development
(1) Plan new construction	1	3
(2) Complete construction previously started .	2	2
(3) Reconstruction of worn-out facilities	4	1
(4) Expansion	1	- -

The lists of proposed projects are included in Exhibits I and II.

(1c) Construction for fire, administration, and other purposes ($2,465,000, an appropriation increase of $717,000, with an increase of 5 permanent full-time positions. On the basis of program level, there will be an increase of $695,707 from the 1975 level of $1,769,293.)

GOAL: To support the Forest Service land management programs by providing adequate structural improvement and communications necessary to achieve the program objectives.

Water and sanitation systems--to replace worn out, improve existing, or construct 5 new systems that will comply with Federal and State water quality standards at a total cost of $227,000.

Specific project locations are as follows:

State	Location	Amount
Montana	Missoula	$34,000
South Dakota	Harding (two systems)	109,000
Oregon	Jackson Co.	33,000
Mississippi	Brooklyn	51,000

Ranger district offices-- Fire and security improvements to be constructed at Cass Lake, Minnesota, to improve public safety at a cost of $102,000.

Dwellings--Eleven to be constructed at a total cost of $555,000 in rural and isolated locations where rental housing is not available. They will be located as follows:

State	Location	Amount
Arizona	Alpine	$39,000
Oregon	Umatilla Co.	103,000
Alaska	Sitka	206,000
Alaska	Petersburg	207,000

Communications system (radios and telephones)--Eight systems will be improved through new construction or upgrading existing systems at a total cost of $1,160,000 at the following locations:

State	Location	Amount
Montana	Regionwide	$25,000
Arizona	Yavapai Co.	30,000
Idaho	Sawtooth National Forest	140,000
California	Regionwide	179,000
California	Lake Tahoe Basin	209,000
13 S.E. States	Regionwide	180,000
Alaska	Regionwide	290,000
Wyoming	West Central	107,000

Airport projects--Three projects, at a cost of $325,000, needed for protection of the National Forests from wild fire.

State	Location	Amount
New Mexico	Silver City	$63,000
New Mexico	Otero Co.	33,000
Oregon	Wallowa Co.	229,000

Special project--To move corrals and trailers on the Flathead National Forest in Montana at a cost of $96,000 to correct public health and safety hazards.

Examples of Recent Accomplishments

The following units were constructed or reconstructed or construction contracts awarded in fiscal year 1974:

Units	No.
Water and sanitation systems	27
Communication systems upgraded and modernized	13

(2) Research construction (No funds are requested, an appropriation decrease of $3,957,000. On basis of program level, there will be a decrease of $207,933 from the 1975 program level of $3,582,933. No change in permanent full-time positions is proposed. Projects recommended for deferral in 1975 will be constructed in 1976.)

(3) Pollution abatement ($9,290,000, an appropriation decrease of $7,606,000 with a decrease of 45 permanent full-time positions. On the basis of program level, there will be a decrease of $15,176,159 from the 1975 level of $24,466,159.)

GOAL: To reduce air and water pollution from existing Forest Service facilities consistent with State air and water quality standards as required by E.O. 11507, E.O. 11752, and PL 92-500.

The program decrease is the result of finalization of the efforts initiated under E.O. 11507 and deferred to take advantage of joint disposal facilities in cooperation with local authorities. Of the total program, $1,804,000 will be used as follows to complete deferred projects:

Project construction engineering	$380,000
Bass Lake sewer lines and cooperative agreement with Madera County, California, sewer district. This increase brings the total project funding for fiscal years 1975-1976 to $3,708,000 on final designs and county contract awards.	1,424,000

This will complete all work under requirements of E.O. 11507.

The balance of the program is to initiate work required by PL 92-500 and E.O. 11752 and related State and Federal standards promulgated by that Act. Such action will include investigation of both point and non-point discharges, including establishment of monitoring and surveillance systems and corrective action on 38 identified deficient National Forest administrative sites and approximately 138 recreation sites. Where corrective action on previously unidentified sites is found to be necessary, funds will be used for thorough analysis and preliminary design.

Proposed Program

(a) Point discharge evaluation and design	$2,512,900
(b) Non-point monitoring, evaluation, and design	1,990,000
(c) Correct deficient administrative site	1,473,100
(d) Correct deficient recreation sites	3,264,000
(e) Air pollution monitoring	50,000
Total	9,290,000

Pollution abatement and prevention requirements previously aimed largely at point source discharges have been broadened by PL 92-500 to include non-point or dispersed sources. The proposed program would provide for the

surveillance of development and use activities on National Forest System lands and the planning, design and technical supervision of procedures for the abatement of identified non-point sources. Examples of activities or uses which have the potential for environmental pollution are construction, mining, recreation, grazing, road construction, and those activities associated with timber management.

The information obtained through surveillance is used to:

(a) Help identify pollution sources.
(b) Provide the facts needed for determining:

(1) Uses for which the water is suited.
(2) When quality of water has dropped below standards for particular uses.
(3) Practical water quality goals.
(4) The effectiveness of current management practices in meeting water quality goals.
(5) Design criteria for future management action to meet established water quality goals.

Abatement procedures include the development of operating guidelines, land treatment measures, training of personnel, and closer supervision of activities having a high potential for non-point pollution.

These programs are vitally needed to protect and maintain the resources and environment of the National Forests. They will:

(a) Help prevent a general degradation of the National Forests.
(b) Insure a continued flow of high quality water for domestic and irrigation use.
(c) Help realize the 1985 National goal to eliminate the discharge of pollutants into navigable waters of the United States.

Air pollution abatement--An amount of $50,000 will be used to comply with the Clean Air Act and EPA rural non-degradation regulations in the Sierra-Nevada Mountain Air Basin of California. Specific high-use mountain basins will be monitored. Vehicle control measures will be determined for designated land use areas such as Kirkwood Meadows Ski Area and Mineral King Development.

(4) Land acquisition, Weeks Act ($1,525,000, an appropriation decrease of $56,000. On the basis of program level, a decrease of $66,504 is proposed below the 1975 level of $1,591,504. No change in permanent full-time positions is proposed.)

GOAL: Acquisition of land to protect headwaters of navigable streams against land abuse, and for production of timber

The $1,525,000 will be used to acquire an estimated 6,000 acres in the Redbird Purchase Unit in eastern Kentucky at a cost of $581,820. The remaining $943,180 will be used to continue the acquisition programs in purchase units in the eastern United States, plus a minor program in Nebraska. These funds will be used to acquire properties of high priority that are expected to be available in fiscal year 1976. Emphasis is given in this part of the program to the National Forests in Arkansas, Illinois, Michigan, Missouri, and Ohio.

The acquisition of key inholdings within the National Forests and the National Forest purchase units becomes increasingly urgent as the demands upon wildlands and farm lands for highway construction, industrialization, and summer home development increase. The development program for the National Forests recognizes the need to acquire additional private inholdings in need of land rehabilitation. Included are lands depleted by repeated fires, poor logging practices, clearing and cultivation of steep and erodible mountain lands, disturbed mineral exploitation areas, and submarginal or marginal farms that should be removed from farming operations and managed for timber production and/or grazing. These are lands located primarily in economically depressed

areas. In the past 5 years land costs have approximately doubled. In addition, payments required by PL 91-646 and increased costs of doing business results in less acreage acquired per dollar expended. At the current funding level fewer acres will be acquired each year. Sound management of acquired areas will contribute to:

(a) Stabilization of the local economy.
(b) Environmental enhancement.
(c) Prevention of stream pollution in rural America.
(d) Improved timber production.

Lands primarily valuable for recreation are not included in this program, since acquisition of such lands is financed under the Land and Water Conservation Fund.

See the tabulation at the end of this section for more detailed information on the actual and planned accomplishments in fiscal years 1974-1976 (Exhibit III).

Examples of Recent Accomplishments

In 1974, a total of 116 tracts were contracted for purchase under authority of the Weeks Act using regular appropriated Weeks Act funds. These cases involved the acquisition of 12,085 acres at a total cost of $1,292,452. These transactions involve lands suited to timber production and watershed protection in areas where National Forest ownership needs to be consolidated or extended to facilitate these programs. Many of the smaller parcels, 20-40-80 acres in size, are purchases made at a price equal to, or nearly equal to, the cost that would otherwise have been incurred to survey, post, and mark the National Forest boundary surrounding the property.

EXHIBIT I -- RECREATION-PUBLIC USE -- FY 1976
Capital Investments -- Distribution by National Forests

State, Forest, and Project	PAOT Capacity	Total Cost	Projected Visitor-Day Use
Oregon			
Mt. Hood (Multnomah Falls Lodge)	700	$185,000	150,000(A)
Siuslaw (Cape Perpetua Campground)	685	10,000	14,400(A)
Virginia			
Jefferson (East Stoney Fork Campground)	400	169,000	25,000(I)
South Carolina			
Chattahoochee (Burrells Ford Boat Ramp)	50	20,000	15,000(A)
Michigan			
Ottawa (Black River Harbor Campground)	235	39,000	41,000(A)
Minnesota			
Chippewa (Norway Beach Campground)	310	71,000	25,000(I)
Superior (Cane Lake - Entry to Boundary Water Canoe Area)	200	27,000	18,000(I)
Missouri			
National Forests - Missouri (11 Point Wild and Scenic River Float Camps)	90	35,000	40,000(A)
Total	2,670	556,000	260,400(A) 68,000(I)

EXHIBIT II -- WATER RESOURCE DEVELOPMENT CONSTRUCTION -- FY 1976
Capital Investments -- Distribution by National Forests

State, Forest, and Project	PAOT Capacity	Total Cost	Projected Visitor-Day Use
Colorado			
Pike (Rampart Reservoir - Day use facilities)	150	$53,000	11,000(I)
San Isabel (Turquoise Reservoir - Baby Doe and Bell of Colorado Campground)	235	108,000	18,000(I)
San Isabel (Twin Lakes Reservoir - Visitor Information Center)	100	6,000	3,000(I)
Utah			
Ashley (Flaming Gorge NRA - Carmel Campground)	300	24,000	14,000(A)
Arkansas			
Ouachita (Lake Hinkel Reservoir - Recreation Complex)	550	338,000	212,500(I)
Pennsylvania			
Allegheny (Allegheny Reservoir Tracy Ridge Picnic Ground, water and sewer lagoon)	600	110,000	24,000(I)
Total	1,935	639,000	14,000(A) 268,500(I)

PAOT--persons-at-one-time
(A)--Affected, no increase
(I)--Increased use

EXHIBIT III - WEEKS ACT PURCHASES 1974-1976

(Dollars in thousands)

	Fiscal Year 1974			Fiscal Year 1975			Fiscal Year 1976		
	Options Accepted	Acres	Obligation	Options to be Accepted	Acres	Obligation	Options to be Accepted	Acres	Obligation
Alabama									
Talledega ...	1	73	$12.8	- -	- -	- -	2	80	$20.0
Arkansas									
Ozark	5	452	68.4	9	500	$70.0	8	650	96.9
Illinois									
Shawnee	3	642	56.8	10	800	100.0	9	600	70.0
Indiana									
Hoosier	12	1,161	159.3	10	1,000	138.0	8	700	100.0
Kentucky									
Redbird Purchase Unit	49	6,458	583.2	48	7,200	688.7	40	6,000	581.8
Michigan									
Hiawatha	2	480	27.8	2	160	10.0	2	135	8.0
Huron-Manistee	9	329	40.3	8	320	40.0	8	360	45.0
Ottawa	5	234	16.3	2	140	10.0	3	200	15.0
Minnesota									
Chippewa	6	330	17.9	4	180	10.0	4	180	10.0
Superior	- -	- -	- -	- -	- -	- -	2	120	6.0
Missouri									
Clark	8	341	35.7	12	650	69.0	5	300	35.0
Mark Twain ..	2	139	18.7	5	220	30.0	5	250	35.0
Nebraska									
Nebraska	1	220	17.6	1	230	19.0	1	420	50.0
New Hampshire									
White Mountain	- -	- -	- -	- -	- -	- -	1	130	13.0
Ohio									
Wayne	8	493	51.1	10	500	54.0	15	950	100.0
South Carolina									
Sumter	- -	- -	- -	- -	- -	- -	1	60	8.0
Virginia									
George Washington	2	88	12.7	- -	- -	- -	5	250	40.0
West Virginia									
Monongahela .	1	325	37.2	- -	- -	- -	2	250	25.0
Wisconsin									
Chequamegon .	- -	- -	- -	2	400	37.5	1	150	10.0
Nicolet	2	320	21.0	8	750	48.5	2	160	8.0
Subtotal ..	116	12,085	1,176.8	131	13,050	1,324.7	124	11,945	1,276.7
Surveys and related acquisition costs			115.7			277.3			248.3
Unobligated balance carried forward			10.5			- -			- -
Unobligated balance brought forward			-3.0			-10.5			- -
Total appropriation			1,300.0			1,591.5			1,525.0

Program and Financing (in thousands of dollars)

Identification code 05-96-1103-0-1-302	1974 actual	1975 estimate	1976 estimate
Program by activities:			
1. Forest land management construction	6,169	7,306	7,586
2. Research construction	2,032	4,374	1,839
3. Pollution abatement	25,655	26,886	19,090
4. Land acquisition, Weeks Act	1,100	1,513	1,525
Total direct program	34,956	40,079	30,040
Total reimbursable program	138	250	250
Total program costs, funded 1/	35,094	40,329	30,290
Change in selected resources (undelivered orders)	6,188	-2,840	-8,700
10 Total obligations	41,282	37,489	21,590
Financing:			
Receipts and reimbursements from:			
11 Federal funds	-113	-200	-200
14 Non-Federal sources	-25	-50	-50
21 Unobligated balance available, start of year	-26,818	-12,767	-6,865
24 Unobligated balance available, end of year	12,767	6,865	.....
40 Budget authority (appropriation)	27,093	30,908	14,475
44.20 Proposed supplemental for civilian pay raises	.....	429	.....
Relation of obligations to outlays:			
71 Obligations incurred, net	41,144	37,239	21,340
72 Obligated balance, start of year	18,984	26,303	14,450
74 Obligated balance, end of year	-26,303	-14,450	-11,873
90 Outlays, excluding pay raise supplemental	33,825	48,700	23,880
91.20 Outlays from civilian pay raise supplemental	.....	392	37

1/ Includes capital outlay as follows: 1974, $23,047 thousand; 1975, $26,500 thousand; 1976, $20,000 thousand.

CONSTRUCTION AND LAND ACQUISITION

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1103-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Direct obligations:			
Personnel compensation:			
11.1 Permanent positions	7,429	7,031	5,675
11.3 Positions other than permanent	2,132	2,396	2,050
11.5 Other personnel compensation	246	290	215
11.8 Special personal services payments	1	2	.....
Total personnel compensation	9,808	9,719	7,940
Personnel benefits:			
12.1 Civilian	917	930	750
13.0 Benefits for former personnel	3	.....	.....
21.0 Travel and transportation of persons	366	261	175
22.0 Transportation of things	409	350	180
23.0 Rent, communications, and utilities	286	240	125
24.0 Printing and reproduction	47	50	20
25.0 Other services	4,990	4,305	1,195
26.0 Supplies and materials	1,562	1,325	700
31.0 Equipment	2,809	2,400	1,270
32.0 Lands and structures	19,945	16,900	9,000
42.0 Insurance claims and indemnities	4	.....	.....
Subtotal	41,146	36,480	21,355
95.0 Quarters and subsistence charges	-27	-25	-15
Total direct obligations, Forest Service	41,119	36,455	21,340
Total reimbursable obligations, Forest Service (25.0 Other Services)	138	250	250
99.0 Total obligations, Forest Service	41,257	36,705	21,590

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1103-0-1-302	1974 actual	1975 estimate	1976 estimate
GENERAL SERVICES ADMINISTRATION			
21.0 Travel and transportation of persons	2	16	.....
24.0 Printing and reproduction	.....	4	.....
25.0 Other services	2	26	.....
32.0 Lands and structures	21	738	.....
Total obligations, General Services Administration	25	784	.....
99.0 Total obligations	41,282	37,489	21,590

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Personnel Summary

Identification code 05-96-1103-0-1-302	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions	572	454	373
Full-time equivalent of other positions	259	268	229
Average paid employment	746	703	583
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions	$11,174	$11,794	$11,794

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976 :Estimate:	:7/1-9/30/76 Estimate
CONSTRUCTION AND LAND ACQUISITION:		
Development of recreation-public use areas	$556	$505
Water resource development construction	639	505
Construction for fire, administration and other purposes	2,465	1,512
Research construction	- -	- -
Pollution abatement	9,290	8,050
Land acquisition, Weeks Act	1,525	502
TOTAL, CONSTRUCTION AND LAND ACQUISITION	14,475	11,074

Program and Financing (in thousands of dollars)

Identification code 05-96-1103-0-1-302	7/1-~~9/30/76~~
Program by activities:	
1. Forest land management construction	3,522
2. Research construction	3,000
3. Pollution abatement	7,050
4. Land acquisition, Weeks Act	1,002
Total program costs, funded 1/	14,574
Change in selected resources (undelivered orders)	-3,500
10 Total obligations	11,074
40 Budget authority (appropriation)	11,074
Relation of obligations to outlays:	
71 Obligations incurred, net	11,074
72 Obligated balance, July 1	11,873
74 Obligated balance, September 30	-8,087
90 Outlays	14,860

1/ Includes capital outlay as follows: $9,500 thousand.

Justification for Transition Period July 1-September 30, 1976

	Amount Requested (in thousands)
Development of recreation-public use areas	$505

Following projects are proposed for construction in the transition period:

State, Forest, and Project	PAOT Capacity	Total Cost (in thousands)	Projected Visitor-Day Use
California			
Tahoe (Oregon Creek Campground) 2/	190	$190	22,600 (A)
Cleveland (San Luis Rey Picnic Ground) 2/	100	80	6,000 (A)
Michigan			
Ottawa (Black River Harbor Campground) 2/	435	70	41,000 (A)
West Virginia			
Monongahela (Seneca Rocks Visitor Center) 1/	200	275	25,000 (A)
Total	725	505	94,000

	Amount Requested (in thousands)
Water resource development construction	$505

Following projects are proposed for construction in the transition period:

State, Forest, and Project	PAOT Capacity	Total Cost (in thousands)	Projected Visitor-Day Use
Illinois			
Shawnee (Kinkaid Reservoir-Johnson Creek Recreation Area) 1/		$50	
Indiana			
Wayne-Hoosier (Celina Lake Recreation Area--boat ramp, water and sewer system) 1/	100	200	19,000 (I)
Ohio			
Wayne-Hoosier (Leith Run--Willow Bay boat launch) 1/	250	42	8,000 (I)
Minnesota			
Chippewa (Knutson Reservoir) 2/		32	30,000 (A)
Pennsylvania			
Allegheny (Allegheny Reservoir--5 miscellaneous sites) 2/	300	83	24,000 (A)
Wyoming			
Ashley (Flaming Gorge--Buckboard Campground, Sheep Creek boating site) 2/		98	15,000 (A)
Total	650	505	96,000

1/ New--continuation of project previously started.
2/ Reconstruction.
(A) Affected (no increase).
(I) Increased use.

	Amount Requested (in thousands)
Construction for fire, administration and other purposes	$1,512

The following new starts are proposed:

Project	Location	Amount
Office	Powell Ranger District, Idaho County, Idaho	$195
Office	LaCroix Ranger District, Cook, Minnesota ..	392
Dwelling and Water System	Mountain City Ranger District, Mountain City, Nevada	44
Office Addition ..	Orleans Ranger District, Orleans, California	242
Work Center · Water System (begin planning and design)	Afognak Island, Alaska	633
	Umpqua, Lane County, Oregon	6
Total		1,512

Pollution abatement	$8,050

Funds will be used for work required by PL 92-500 and E.O. 11752 and related State and Federal standards promulgated by that Act. Proposed program follows:

	Amount
Point discharge evaluation and design	$1,050
Non-point monitoring, evaluation, and design	690
Correct deficient administrative sites	1,000
Correct deficient recreation sites	5,310
Total	8,050

Land acquisition, Weeks Act	$502

State--Forest	Options to be Accepted	Acres	Amount (in thousands)
Illinois--Shawnee	2	160	$25
Indiana--Hoosier	2	175	25
Kentucky-Redbird Purchase Unit	6	250	200
Michigan--Huron-Manistee	2	180	20
Ottawa	3	200	15
Missouri National Forests	10	500	50
Nebraska--Nebraska	1	420	55
Ohio--Wayne	4	235	25
West Virginia--Monongahela	2	160	10
Subtotal	32	2,280	425
Surveys and related acquisition costs .			77
Total			502

The levels of funding proposed above for construction for the transition period are not pro rata of the fiscal year 1976 request because of the seasonal nature of the work.

FOREST ROADS AND TRAILS

		Permanent full-time positions
Appropriation, 1974	$97,700,000	4,332
Estimate, 1975	124,578,000	4,538
Estimate, 1976	108,225,000	4,441
Change	-16,353,000	-97

Adjustments to 1975 appropriation:	
Appropriation Act, 1975	$120,864,000
Proposed supplemental for increased pay costs	3,714,000
Adjusted base for 1976	124,578,000
Estimate, 1976	108,225,000
Change	-16,353,000

PROJECT STATEMENT

The following tabulation reflects the total program for the construction and maintenance of roads and trails on the National Forests and Grasslands by combining the funds available under the appropriation "Forest roads and trails" with the permanent appropriation of 10 percent of National Forest receipts.

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
1. Construction of roads and trails	$90,419,370	$119,036,000	$115,194,000	-$3,842,000
2. Maintenance of roads and trails	40,635,182	40,070,000	43,344,000	3,274,000
Total obligations	131,054,552	159,106,000	158,538,000	-568,000
Transfer from Roads and Trails for States a/	-45,468,547	-47,003,064	-47,975,000	-971,936
Program under Forest Roads and Trails contract authority	85,586,005	112,102,936	110,563,000	-1,539,936
Obligations incurred under unfunded contract authority	12,113,995	12,475,064	-2,338,000	-14,813,064
Total available or estimate	97,700,000	124,578,000	108,225,000	-16,353,000
Supplemental appropriation	- -	-3,714,000		
Appropriation or estimate	97,700,000	120,864,000		

a/ The annual appropriation language and the Department presentation combine the appropriation for Forest roads and trails made pursuant to 23 USC 205 and the appropriation of 10 percent of forest receipts for construction and maintenance of roads and trails pursuant to 16 USC 501. This merger of funds is made in order to simplify the programing, allotment, and accounting of funds at the field level.

A decrease of $16,353,000 is proposed to meet cash requirements for liquidation of contract authority. This appropriation provides for the liquidation of obligations incurred for the construction and maintenance of forest roads and trails pursuant to the authority contained in the Federal-Aid Highway Act. An appropriation of $108.2 million for 1976 is required to:

(1) Pay for obligations of the prior years which will be due for payment in fiscal year 1976.

(2) Pay the portion of the 1976 obligations of $110.6 million contract authority which will require cash payment in that year.

1/ Excludes following positions in the Department of Transportation that receives funds from the Forest Service: 1974, 7; 1975, 7; 1976, 7.

A decrease of 97 Forest Service permanent full-time positions is also proposed.

GOAL: To provide and maintain efficiently the transportation system needed to accomplish the land and resource protection, management, and utilization goals for the National Forests; and to provide, maintain, and operate efficiently the National Forest trail system for recreation and other purposes.

Following is a summary of three years of road and trail construction and maintenance. A comparison is shown of the work to be undertaken in fiscal year 1976 as compared to fiscal year 1975 (dollars in thousands).

	FY 1974		FY 1975		FY 1976		Change	
	Miles	Amount	Miles	Amount	Miles	Amount	Miles	Amount
Recurrent road maintenance	78,834	$35,646	97,157	$34,505	96,630	$37,665	-527	+$3,160
Recurrent trail maintenance	28,256	4,990	41,062	5,565	30,700	5,679	-10,362	+114
Road construction	36	8,286	136	15,716	142	6,379	+6	-9,337
Trail construction	358	3,363	298	3,200	270	3,112	-28	-88
Location, surveys, plans, and supervision (timber purchaser roads)	9,400	70,470	8,427	85,162	10,938	93,444	+2,511	+8,282
Supplementing timber purchaser construction	120	3,333	350	8,863	238	6,794	-112	-2,069
Bridge construction and reconstruction for timber access	No. 62	4,967	No. 154	6,095	No. 87	5,465	No. -67	-630
Totals		131,055		159,106		158,538		-568

The budget proposal will provide for the Forest Service to handle the engineering road survey work on at least 75 percent of the total volume of timber scheduled for sale in fiscal year 1976 and to retain control of the location and design work on permanent roads. The program will provide funding of access bridge construction and replacement to support the timber program. The estimated mileage of road surveys for timber sale needs of construction and reconstruction will be increased by 2,511 miles in fiscal year 1976. This is necessary to meet and maintain volumes of timber advertised for sale in fiscal year 1976 and beyond at the timber sale preparation program level.

Funding for construction of roads by Forest Service public works contracts will be reduced $9,337,000. Emphasis will be on support activities for the timber purchaser road program and purchaser construction through timber credit allowances rather than direct Federal construction. This will help to meet the immediate challenge of increasing timber needs and will assist in maintaining annual Federal outlays at a reduced level. This will achieve the short-term goals of the timber resource program. No all-purpose or recreation roads will be built.

The proposed program provides for maintenance and environmental protection of essential roads and trails on the existing transportation system. Road use regulation and closure policies will continue to be implemented consistent with resource management objectives. Lightly used roads will be closed to traffic between entries for management purposes to minimize outlays and to prevent resource damage.

Requested road supplemental funds ($6,794,000) will be used in conjunction with timber credit allowance to construct environmentally sound timber roads for access to new timber sales in areas of steep slopes, critical soils, sensitive watersheds, and timber stands needing immediate thinning or salvage. The funds are the minimum estimated to be necessary to provide access to meet the fiscal year 1976 goals.

As part of the timber system, large areas of National Forest land need road system development to reach a more intensive management status. In addition, many older, low standard roads cannot adequately or safely handle today's vehicle sizes or numbers. A necessity for proper sale scheduling which could include new road construction and/or reconstruction of older roads is professional road engineering. This consists of

investigations for the best road location, survey and design of road plans. This work should be done before advertising a timber sale. Congress has directed, and the Forest Service has agreed, to do at least 75 percent of this presale engineering work. Current economic conditions reflect an increasing need for the Forest Service to contribute to road construction costs and also to uphold its share of the responsibility for needed road maintenance. Adequate engineering funds will help insure meeting the planned timber program, and also enable the Forest Service to protect investments in National Forest lands.

National Trail System development authorized by PL 90-543 will be implemented under the proposed funding. This will assist in providing for the present heavy public travel over inadequate and unsafe, heavy-use trails in some areas of the National Forests. Top priority will be given to construction of the Pacific Crest and Appalachian National Scenic Trails, next priority will be given to National Recreation Trail candidates, and then priority to construction of heavy-use trails not part of the National Trail System. This program will provide for safe use of many identified heavy-used trails while protecting soil and watershed and esthetic values in scenic and recreation areas.

The planned maintenance, construction, and engineering services will be in accord with the National Environmental Policy Act (NEPA). This Act requires full consideration of the services to, and the effect upon, all resources by development of roads, trails, and other facilities. All alternate means of access must be investigated and their desirability, feasibility, and impacts carefully weighed before a decision to construct is made. This continues to increase costs due to extending the time between project conception and completion and it requires extensive analysis and review during the planning process with full utilization of technical expertise.

The work will be designed, and facilities constructed and administered, under provisions of the Highway Safety Act that made all Highway Standards effective February 15, 1973 (23 CFR II). This requires implementation of traffic engineering services and techniques, including traffic control devices, seasonal closure, and other management techniques for roads to insure public safety.

The proposed program provides for continuing implementation of the bridge standards under the Federal-Aid Highway Act of 1968. Implementation of the Act involves aggressively continuing corrective actions on those fatigued and otherwise defective bridges. This results in added costs for inspections, maintenance, reconstruction, or in closure and rerouting over longer routes of access to assure public safety.

The following tabulation shows the current status of the Forest Roads and Trails System and project needs:

	Existing Mileage	Estimated Mileage Needing Reconstruction	Estimated Additional Mileage Needed
Forest development roads	201,317	139,300	135,840
Forest development trails	96,393	45,577	23,895

	Construction					
	By the Government			By Timber Purchaser		
	FY 1974	FY 1975	FY 1976	FY 1974	FY 1975	FY 1976
Roads (miles)	36	136	142	7,080	8,427	9,620
Trails (miles)	358	298	270	- -	- -	- -

Status of Unfunded Authorizations

Unfunded contract authority beginning of 1975	$485,759,000
Federal-Aid Highway Act of 1973 (1976 authority available in 1975)	140,000,000
Appropriation, 1975	-124,578,000
Unfunded contract authority rescinded (PL 93-529, 12/21/74)	-61,611,000
Total unfunded beginning of 1976	439,570,000
Unfunded contract authority lapsing, June 30, 1976	-25,723,000
1976 Budget estimate (cash requirements)	-108,225,000
Balance to remain unfunded as of June 30, 1976	305,622,000

Analysis of Cash Requirements

1.	Unliquidated obligations, June 30, 1974		$51,317,492
2.	Estimated cash requirements to finance 1975 program		88,499,900
3.	Total cash requirements by June 30, 1975		139,817,392
4.	Less cash on hand 1975: Balance from 1974	15,558,392	
	Cash on hand June 30, 1975	-319,000	
	Appropriation, 1975	124,578,000	139,817,392
5.	Obligations in 1975 and prior years for which cash was not provided in items 1 and 2		20,000,000
6.	Estimated cash required to finance 1976 program a/		83,225,000
7.	Reserve		5,000,000
8.	Total cash required in 1976		108,225,000

a/ An estimated 75 percent of the $110,563,000 new obligations will require cash payments during the fiscal year.

GEOGRAPHIC BREAKDOWN OF OBLIGATIONS

Forest Roads and Trails

	FY 1974	FY 1975	FY 1976	Change
Alabama	$520,008	$585,500	$583,400	-$2,100
Alaska	5,184,658	6,597,900	6,574,300	-23,600
Arizona	2,920,723	3,500,300	3,487,800	-12,500
Arkansas	1,997,832	2,049,400	2,042,100	-7,300
California	29,406,019	37,062,300	36,929,800	-132,500
Colorado	4,775,224	6,136,700	6,114,800	-21,900
District of Columbia	2,899,502	3,425,000	3,412,800	-12,200
Florida	529,246	820,000	817,100	-2,900
Georgia	821,761	769,800	767,100	-2,700
Idaho	13,214,539	15,256,400	15,201,900	-54,500
Illinois	185,026	335,100	333,900	-1,200
Indiana	58,753	48,200	48,000	-200
Kansas	623	- -	- -	- -
Kentucky	538,481	1,254,000	1,249,500	-4,500
Louisiana	671,533	841,000	838,400	-2,600
Maine	27,502	24,300	24,200	-100
Michigan	1,565,151	1,717,200	1,711,100	-6,100
Minnesota	1,441,795	1,587,300	1,581,600	-5,700
Mississippi	854,594	824,300	821,400	-2,900
Missouri	461,633	887,000	883,800	-3,200
Montana	10,544,030	13,407,500	13,359,600	-47,900
Nebraska	37,155	43,200	43,000	-200
Nevada	372,968	1,268,100	1,263,600	-4,500
New Hampshire	660,309	604,200	602,000	-2,200
New Mexico	3,391,044	3,640,500	3,627,500	-13,000
New York	2,458	4,400	4,400	- -
North Carolina	1,131,200	891,100	887,900	-3,200
North Dakota	74,956	70,700	70,400	-300
Ohio	54,233	168,300	167,700	-600
Oklahoma	155,886	268,100	267,100	-1,000
Oregon	22,902,551	26,860,300	26,764,400	-95,900
Pennsylvania	876,354	1,112,200	1,108,200	-4,000
Puerto Rico	36,892	31,700	31,600	-100
South Carolina	722,589	712,800	710,300	-2,500
South Dakota	890,233	1,010,400	1,006,800	-3,600
Tennessee	456,616	635,000	632,700	-2,300
Texas	791,124	859,700	856,600	-3,100
Utah	2,287,663	2,697,300	2,687,700	-9,600
Vermont	457,470	580,900	578,800	-2,100
Virginia	797,551	1,139,200	1,135,100	-4,100
Washington	11,776,218	13,815,200	13,765,900	-49,300
West Virginia	923,019	1,098,400	1,094,500	-3,900
Wisconsin	981,450	1,016,800	1,013,200	-3,600
Wyoming	2,655,980	3,448,300	3,436,000	-12,300
Total	131,054,552	159,106,000	158,538,000	-568,000

FOREST ROADS AND TRAILS (LIQUIDATION OF CONTRACT AUTHORITY)

Program and Financing (in thousands of dollars)

Identification code 05-96-2262-0-1-302		1974 actual	1975 estimate	1976 estimate
	Program by activities:			
	Direct program			
	1. Construction of roads and trails	110,480	138,001	117,194
	2. Maintenance of roads and trails	43,595	40,105	43,344
	Total direct program	154,075	178,106	160,538
	Reimbursable program			
	1. Construction of roads and trails	297	1,500	1,500
	2. Maintenance of roads and trails	129	500	500
	Total reimbursable program	426	2,000	2,000
	Total program costs, funded 1/	154,502	180,106	162,538
	Change in selected resources (undelivered orders)	-23,021	-19,000	-2,000
10	Total obligations	131,481	161,106	160,538
	Financing:			
	Receipts and reimbursements from:			
11	Federal funds	-45,738	-48,753	-49,725
14	Non-Federal sources	-157	-250	-250
21.49	Unobligated balance available, start of year: Contract authority	-279,383	-450,000	-416,286
24.49	Unobligated balance available, end of year: Contract authority	450,000	416,286	280,000
25.49	Unobligated balance lapsing: Contract authority	23,797	.....	25,723
	Budget authority	280,000	78,389	.....

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-2262-0-1-302		1974 actual	1975 estimate	1976 estimate
	Budget authority:			
	Current:			
40	Appropriation	97,700	120,864	108,225
40.49	Portion applied to liquidate contract authority	-97,700	-124,578	-108,225
43	Appropriation (adjusted)	.....	-3,714	.....
44.20	Proposed supplemental for civilian pay raise	.....	3,714	.....
49	Contract authority (23 U.S.C. 203)	140,000	.....	....
	Unobligated balance of contract authority rescinded (Public Law 93-529)	.....	-61,611	...
	Permanent:			
69	Contract authority (23 U.S.C. 203)	140,000	140,000	.....
	Relation of obligations to outlays:			
71	Obligations incurred, net	85,586	112,103	110,563
	Obligated balance, start of year:			
72.40	Appropriation	28,428	15,558	319
72.49	Contract authority	47,873	35,759	23,284
	Obligated balance, end of year:			
74.40	Appropriation	-15,558	-319	-5,316
74.49	Contract authority	-35,759	-23,284	-25,622
90	Outlays	110,570	136,422	102,909
91.20	Outlays from civilian pay raise supplemental	.....	3,395	319

1/ Includes capital outlay as follows: 1974, $74,775 thousand; 1975, $90,000 thousand; 1976, $75,000 thousand.

Status of Unfunded Contract Authority (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
Unfunded balance, start of year	327,256	485,759	439,570
Contract authority	280,000	140,000	.....
Unfunded balance rescinded (Public Law 93-529)	.....	-61,611	.....
Administrative cancellation of unfunded balance	-23,797	.....	-25,723
Unfunded balance, end of year	-485,759	-439,570	-305,622
Appropriation to liquidate contract authority	97,700	124,578	108,225

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-2262-0-1-302		1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Direct obligations:				
	Personnel compensation:			
11.1	Permanent positions	52,995	60,510	59,410
11.3	Positions other than permanent	20,986	24,076	23,745
11.5	Other personnel compensation	1,749	1,907	1,850
11.8	Special personal services payments	1	.....	.....
	Total personnel compensation	75,731	86,493	85,005
	Personnel benefits:			
12.1	Civilian	7,723	8,767	8,685
13.0	Benefits for former personnel	44	47	40
21.0	Travel and transportation of persons	3,176	2,439	5,175
22.0	Transportation of things	5,793	5,922	6,600
23.0	Rent, communications, and utilities	2,682	4,774	5,400
24.0	Printing and reproduction	427	465	525
25.0	Other services	12,810	23,338	16,604
26.0	Supplies and materials	6,260	6,374	7,150
31.0	Equipment	3,353	3,643	4,550
32.0	Lands and structures	12,576	16,275	18,300
42.0	Insurance claims and indemnities	54	55	55
44.0	Refunds	-1	.....	.....
	Subtotal direct obligations ...	130,628	158,592	158,089
95.0	**Quarters and subsistence charges direct**	-260	-247	-250
	Total obligations	130,368	158,345	157,839

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-2262-0-1-302		1974 actual	1975 estimate	1976 estimate
FOREST SERVICE--Reimbursable obligations:				
	Personnel compensation:			
11.1	Permanent positions	139	219	220
11.3	Positions other than permanent	40	72	70
11.5	Other personnel compensation	7	13	15
	Total personnel compensation	186	304	305
	Personnel benefits:			
12.1	Civilian	16	26	25
21.0	Travel and transportation of persons	7	13	15
22.0	Transportation of things	12	27	30
23.0	Rent, communications, and utilities	5	10	10
24.0	Printing and reproduction	1	4	5
25.0	Other services	52	579	580
26.0	Supplies and materials	24	43	40
31.0	Equipment	2	5	5
32.0	Lands and structures	121	989	985
	reimbursable Total obligations	426	2,000	2,000
	Total obligations, Forest Service	130,794	160,345	159,839

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-2262-0-1-302	1974 actual	1975 estimate	1976 estimate
DEPARTMENT OF TRANSPORTATION			
Personnel compensation:			
111 Permanent positions	95	100	107
113 Positions other than permanent	27	27	28
115 Other personnel compensation	10	10	11
Total personnel compensation	132	137	146
Personnel benefits:			
121 Civilian	18	12	13
210 Travel and transportation of persons	31	31	31
220 Transportation of things	10	10	10
230 Rent, communications, and utilities	2	2	2
240 Other services	135	135	135
320 Lands and structures	359	434	362
440 Refunds			
Total, Department of Transportation	687	761	699
990 Total obligations	131,481	161,106	160,538

Personnel Summary

Identification code 05-96-2262-0-1-302	1974 actual	1975 estimate	1976 estimate
FOREST SERVICE			
Direct:			
Total number of permanent positions ..	4,332	4,538	4,441
Full-time equivalent of other positions	2,505	2,687	2,629
Average paid employment	6,145	6,610	6,455
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions .	$11,174	$11,794	$11,794
Reimbursable:			
Total number of permanent positions ..	9	14	14
Full-time equivalent of other positions	4	8	8
Average paid employment	13	22	22
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions .	$11,174	$11,794	$11,794
DEPARTMENT OF TRANSPORTATION			
Total number of permanent positions ..	7	7	7
Full-time equivalent of other positions	5	5	5
Average paid employment	12	12	12
Average GS grade	7.97	7.97	7.95
Average GS salary	$13,233	$13,358	$13,696

Program and Financing (in thousands of dollars)

Identification code 05-96-2262-0-1-302			
	Program by activities:	7/1-9/30/76	
	Direct program		
	1. Construction of roads and trails	37,305	
	2. Maintenance of roads and trails	16,000	
	Total direct program	53,305	
	Total reimbursable program	25	
	Total program costs, funded 1/	53,330	
	Change in selected resources (undelivered orders)	-1,000	
10	Total obligations	52,330	
	Financing:		
	Receipts and reimbursements from:		
11	Federal funds	-51,600	
21.49	Unobligated balance available, July 1: Contract authority	-280,000	
24.49	Unobligated balance available, September 30: Contract authority	279,270	
40	Budget authority	.....	
	Relation of obligations to outlays:		
71	Obligations incurred, net	730	
	Obligated balance, July 1:		
72.40	Appropriation	5,316	
72.49	Contract authority	25,622	
	Obligated balance, September 30:		
74.40	Appropriation	-5,316	
74.49	Contract authority	-26,352	
90	Outlays	.....	

1/ Includes capital outlay as follows: $25,000 thousand.

Justification for Transition Period July 1-September 30, 1976

Funds for liquidation of contract authority for the Forest Roads and Trails appropriation are not being requested for the transition period. It is proposed that the appropriation of 10 percent of forest receipts for construction and maintenance of roads and trails pursuant to 16 USC 501 (estimated to be $51,600,000) be merged with this appropriation during the transition period.

The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

A program level of $52,330,000 is proposed for the transition period which is about 33 percent of the proposed program level for fiscal year 1976 of $158.5 million. This level for the transition period is not pro rata of the 1976 request because of the seasonal workload. The following is the work planned to be undertaken during this period (dollars in thousands):

	Miles	Amount
Recurrent road maintenance	96,630	$12,400
Recurrent trail maintenance	30,700	3,800
Road construction	47	1,000
Trail construction	90	1,200
Location, surveys, plans and supervision (timber purchaser roads)	11,000	30,000
Supplementing timber purchaser construction	80	2,180
Bridge construction and reconstruction for timber access	29	1,750
Total		52,330

	Roads	Trails
Construction--miles:		
By the Government	47	90
By timber purchaser	4,500	- -

ACQUISITION OF LANDS FOR NATIONAL FORESTS, SPECIAL ACTS

Appropriation, 1974	$94,000
Appropriation, 1975	161,000
Estimate, 1976	161,000

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
1. Cache National Forest, Utah, Act of 5/11/38, as amended	$19,410	$20,000	$20,000	- -
2 Uinta-Wasatch National Forests, Utah, Act of 8/26/35, as amended	20,000	30,000	30,000	- -
3. Toiyabe National Forest, Nevada, Act of 6/25/38, as amended	8,000	10,000	10,000	- -
4. Angeles National Forest, California, Act of 6/11/40	14,000	20,000	20,000	- -
5. San Bernardino and Cleveland National Forests, California, Act of 6/15/38	32,000	81,000	81,000	- -
Unobligated balance reverted to National Forests Fund	590	- -	- -	- -
Appropriation or estimate	94,000	161,000	161,000	- -

The Congress has enacted several special laws which authorize appropriation from the receipts of specified National Forests for the purchase of lands to minimize erosion and flood damage. Amounts appropriated and laws under which authorized are shown above.

These are critical watershed lands needing soil stabilization and vegetative cover restoration to prevent serious erosion and damaging floods within these National Forests. Land treatment measures must be applied and subsequently maintained on all lands in these areas to make corrective action fully effective. To assure full program effectiveness, the intermingled private lands must be acquired by the Federal Government. The results will be reflected in improved watershed conditions, social benefits, and development of economic strength in local communities.

The counties in southern California have recognized the benefits that these acquisition programs have produced. They are very interested in having these critical watershed lands protected by being in public ownership. At the present, damages to these lands are occurring which can only result in future expenditures of public funds for rehabilitation and public safety at costs greatly exceeding current land acquisition costs.

Cache National Forest. In fiscal year 1974, funds were available from two sources for the purchase of lands within the Cache National Forest in Utah.

1. The Receipts Act of May 11, 1938, as amended - $20,000. This is an annual appropriation.

2. The Act of July 24, 1956 -- $200,000 was appropriated under this authority in fiscal years 1957 through 1960. These funds remain available until expended. Through fiscal year 1974, $189,351 has been obligated from this appropriation

These funds are used to acquire key tracts of land in the steep, rough, and highly important watershed areas lying north of the Ogden River along the Wasatch front and on Wellesville Mountain of the Cache National Forest. These are rugged mountain lands above the river valley which have been damaged and their watershed functions impaired through forest fires or overgrazing. This contributes to excessive rainfall runoff causing severe erosion. The damaged watershed lands are potential sources of floods and mudrock flows. Many tracts of land are located in the north fork of Ogden River and on the drainage of Pineview Reservoir, a Federal reclamation project. Others are within the watersheds of the city of Ogden and the other small towns along the Wasatch front. Public ownership of these lands and subsequent restoration and protection of their vegetative cover is a highly important part of a vigorous cooperative program with the local community and agencies.

The appropriation of $20,000 under the Act of May 11, 1938, is from receipts of the Cache National Forest. In the absence of this appropriation, the State of Utah would receive 25 percent of these receipts for roads and school purposes in the local counties involved. Therefore, the local counties, in effect, are contributing one-fourth of the amount of this appropriation. These appropriations are extremely important to the continuation of a vital and worthwhile program extending almost thirty years and shared in by both the local agencies and the Federal Government through the National Forests.

The 1956 Act requires that expenditures of Federal funds be matched by contributions by local agencies or people. This requirement has been met through donations of money and lands valued at $200,000.

Through fiscal year 1974, 29,352 acres have been approved for purchase pursuant to the Receipts Act of 1938, and 15,957 acres under the Special Act of 1956. The 1975 objective is to acquire 840 additional acres of these critical watershed lands. A similar acreage is expected to be acquired in 1976.

Uinta-Wasatch. In fiscal years 1963 through 1974, an appropriation of $240,000 was made under the Uinta-Wasatch Receipts Act of August 26, 1935, for acquiring critical watershed lands in the American Fork Canyon watershed. A total of 2,921 acres has been approved for purchase through fiscal year 1974, and an estimated 100 acres will be acquired each year during 1975 and 1976.

Toiyabe National Forest. $10,000 was appropriated under this Act in fiscal year 1975 and $8,000 in 1974. The 1975 and 1976 objective is to acquire 40 acres each year.

Angeles National Forest. $14,000 was appropriated in fiscal year 1974, $20,000 in 1975, and $20,000 is proposed in 1976 to purchase important watershed lands. Acquisition is needed to minimize erosion and flood damage. The 1975 objective is to acquire 30 acres. The 1976 objective is to acquire 80 acres.

San Bernardino and Cleveland National Forests. The $81,000 proposed for fiscal year 1976 is to acquire 270 acres of important watershed lands. Acquisition is needed to minimize erosion and flood damage.

No permanent full-time positions are assigned to this appropriation.

Amounts Available for Appropriation (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
Revenue	93	161	161
Unobligated balances returned to unappropriated receipts	1	.....	.....
Total available for appropriation	94	161	161
Appropriation	-94	-161	-161
Unappropriated balance, end of year	.....	.....	.....
Program by activities:			
1. Cache National Forest, Utah	19	20	20
2. Uinta and Wasatch National Forests, Utah	26	30	30
3. Toiyabe National Forest, Nevada	8	10	10
4. Angeles National Forest, California	1	20	20
5. San Bernardino and Cleveland National Forests, California	.....	46	81
Total program costs, funded 1/	54	126	161
Change in selected resources (undelivered orders)	39	35	.....
10 Total obligations (object class 32.0)	93	161	161
Financing:			
25 Unobligated balance lapsing	1	.....	.....
40 Budget authority (appropriation) (special fund)	94	161	161
Relation of obligations to outlays:			
71 Obligations incurred, net	93	161	161
72 Obligated balance, start of year	7	68	89
74 Obligated balance, end of year	-68	-89	-89
77 Adjustments in expired accounts	-6	.....	.....
90 Outlays	26	140	161

1/ Includes capital outlay as follows: 1974, $48 thousand; 1975, $126 thousand; 1976, $150 thousand.

Program and Financing (in thousands of dollars)

Identification code 05-96-5208-0-2-302			
	7/1-9/30/76		
Program by activities:			
1. Angeles National Forest, California	13		
2. San Bernardino and Cleveland National Forests, California	32		
Total program costs, funded 1/	45		
Change in selected resources (undelivered orders)	-45		
10 Total obligations	.....		
40 Budget authority (appropriation) (special fund)	.....		
Relation of obligations to outlays:			
71 Obligations incurred, net	.....		
72 Obligated balance, July 1	89		
74 Obligated balance, September 30	-4		
77 Adjustments in expired accounts	.....		
90 Outlays	85		
1/ Includes capital outlay as follows:	$45 thousand.		

ACQUISITION OF LANDS TO COMPLETE LAND EXCHANGES

Appropriation, 1974	$55,300
Appropriation, 1975	39,310
Estimate, 1976	35,410
Change	-3,900

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Purchase of land, State of:				
California	$28,000	$45,145	- -	-$45,145
Montana	- -	750	- -	-750
Georgia	- -	16,250	- -	-16,250
Oklahoma	- -	4,500	- -	-4,500
South Carolina	- -	- -	$2,410	2,410
Wisconsin	- -	- -	15,000	15,000
Minnesota	- -	- -	18,000	18,000
Unobligated balance brought forward	-35	-27,335	- -	27,335
Unobligated balance carried forward	27,335	- -	- -	- -
Appropriation or estimate	55,300	39,310	35,410	-3,900

It is estimated that 150 acres of land will be acquired in fiscal year 1975, and 130 acres in fiscal year 1976.

Amounts Available for Appropriation (in thousands of dollars)

Identification code	1974 actual	1975 estimate	1976 estimate
Unappropriated balance, start of year	94	56	35
Revenue	17	18	.....
Total available for appropriation	111	74	35
Appropriation	-55	-39	-35
Unappropriated balance, end of year	56	35	.....

Program and Financing (in thousands of dollars)

Identification code 05-96-5216-0-2-302	1974 actual	1975 estimate	1976 estimate
Program by activities:			
Acquisition of land:			
1. California	.....	55	18
2. Georgia	.....	16	.....
3. Minnesota	.....	.....	18
4. Montana	.....	1	.....
5. Oklahoma	.....	4	.....
6. South Carolina	.....	.....	2
7. Wisconsin	.....	.....	15
Total program costs, funded 1/	.....	76	53
Change in selected resources (undelivered orders)	28	-10	-18
10 Total obligations (object class 32.0)	28	66	35
Financing:			
21 Unobligated balance available, start of year	.....	-27	.....
24 Unobligated balance available, end of year	27	.....	.....
40 Budget authority (appropriation) (special fund)	55	39	35
Relation of obligations to outlays:			
71 Obligations incurred, net	28	66	35
72 Obligated balance, start of year	... .	28	18
74 Obligated balance, end of year	-28	-18	.....
90 Outlays	.....	76	53

1/ Includes capital outlay as follows: 1974, $0; 1975, $76 thousand; 1976, $53 thousand.

ACQUISITION OF LANDS, KLAMATH INDIANS

Appropriation, 1974	- -
Appropriation, 1975	$49,000,000
Estimate, 1976	- -
Change	-49,000,000

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Purchase of lands, Klamath Indians	- -	$49,000,000	- -	-$49,000,000
Unobligated balance brought forward:	- -	- -	- -	- -
Unobligated balance carried forward:	- -	- -	- -	- -
Appropriation or estimate	- -	49,000,000	- -	-49,000,000

In fiscal year 1961, $68,717,000 was appropriated for the purchase of 525,679 acres of Klamath Indian forest lands which were offered for sale to private parties before the Secretary of Agriculture took title. The remaining members of the Tribe entered into a trust management agreement with the United States National Bank of Oregon which provided for management of the remaining Klamath Indian forest lands. In May 1969 these members elected to terminate the trust.

Funds were appropriated in fiscal year 1975 to carry out the directive in PL 93-102 of August 16, 1973, that the Secretary of Agriculture acquire by condemnation all of the Klamath Indian forest lands the trustee is required to sell. On October 31, 1974, a Declaration of Taking was signed involving 134,961 acres and the estimated compensation of $49,000,000 was deposited in Federal Court.

No permanent full-time positions are assigned to this appropriation.

Program and Financing (in thousands of dollars)

Identification code 05-96-1122-0-1-302	1974 actual	1975 estimate	1976 estimate
Program by activities:			
Direct program:			
10 Acquisition of lands, Klamath Indians (costs--obligations) (object class 32.0) 1/	.....	49,000	.....
Financing:			
40 Budget authority (appropriation)	.....	49,000	.....
Relation of obligations to outlays:			
71 Obligations incurred, net	.....	49,000	.....
90 Outlays	.....	49,000	.....

1/ Includes capital outlay as follows: 1975, $49,000 thousand.

ASSISTANCE TO STATES FOR TREE PLANTING

		Permanent full-time positions
Appropriation, 1974	$1,013,000	1/
Appropriation, 1975	1,355,000	20
Estimate, 1976	1,359,000	20
Change	+4,000	- -

Adjustments to 1975 appropriation:	
Appropriation Act, 1975	$1,344,000
Proposed supplemental for increased pay costs	11,000
Adjusted base for 1976	1,355,000
Estimate, 1976	1,359,000
Change	+4,000

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Assistance to States for tree planting	$1,099,112	$1,378,506	$1,359,000	-$19,500
Unobligated balance brought forward	-109,618	-23,506	- -	23,506
Unobligated balance carried forward	23,506	- -	- -	- -
Total available or estimate	1,013,000	1,355,000	1,359,000	4,000
Supplemental appropriation	- -	-11,000		
Appropriation or estimate	1,013,000	1,344,000		

An increase of $4,000 is proposed to provide for the full year costs of the pay increase effective in fiscal year 1975.

No change in permanent full-time positions is proposed.

The program authorized under Section 401 of the Agricultural Act of 1956 (16 USC 568e) provides assistance to States in their forestation and tree improvement projects. Needed rehabilitation on State and county forest lands has resulted from this program.

New and expanded tree improvement projects which are partially or totally funded under this program are underway in 41 States. Nationally, the States expend three times more than they receive under this program for tree improvement.

Assistance will emphasize seed orchard establishment aimed at the production of improved genetic quality tree seed. Reforestation work will be carried out to restore low-yielding or non-productive forest lands to fuller production of commercial wood. In addition, attendant benefits include:

(1) Erosion control.
(2) Wildlife habitat improvement.
(3) Expanded recreational land use potentials.
(4) Environmental enhancement.

Examples of Recent Accomplishments

Field grafting for disease resistant orchards was completed on a large scale in 1974 in South Carolina. Nearly 500 longleaf and over 600 loblolly pine grafts were made. The States' five-acre orchard for disease resistant (fusiform rust) loblolly pine was completed in 1974 and the four-acre orchard of the Piedmont loblolly disease resistant orchard was nearly completed.

The Alabama Tree Improvement Program now has a total of 185 acres of pine seed orchards. At Geneva State Forest, the longleaf seed orchard was expanded by five acres to a total of 20 acres, and 20 acres were prepared for expansion of the slash pine seed orchard. Grafts for filling this additional acreage were made during the past grafting season and over 2,400 transplants were made in the seed orchards.

Technically sound long-range tree improvement planning. With the Forest Service tree improvement specialist's assistance, Kansas and Wyoming are nearing completion

of comprehensive Statewide plans. Nebraska has developed a tree improvement program and is in the process of hiring a tree improvement specialist. Colorado is developing a program to produce genetically improved containerized planting stock. Kansas is continuing to expand its walnut improvement program and seed orchard.

Maryland is now producing annually 100,000 hybrid white pine--called Brigham pine. These hybrids grow as fast in two years as normal white pines do in three years. The tallest trees in a 13-year-old stand are now 43 feet tall. They continue to exhibit excellent form and needle color.

The Michigan Department of Natural Resources has worked with jack pine, often called "scrub pine" because it grows scrubby and crooked, to improve its form and growth rate. In that State straight rapid-growing trees are now available for seed production as a result of the tree improvement program.

GEOGRAPHIC BREAKDOWN OF APPROPRIATION

Assistance to States for Tree Planting

	1974 actual	1975 estimate	1976 estimate
Alabama	24,000	65,000	65,000
Arkansas	10,000	15,000	15,000
California	18,000	23,000	23,000
Colorado	5,000	7,000	7,000
Connecticut	4,000	6,000	6,000
Florida	30,000	39,000	39,000
Georgia	20,000	53,000	53,000
Guam	- -	4,000	4,000
Hawaii	35,000	38,000	38,000
Idaho	10,000	16,000	16,000
Illinois	8,000	10,000	10,000
Indiana	12,500	12,000	12,000
Iowa	7,000	8,000	8,000
Kansas	12,000	19,000	19,000
Kentucky	12,000	17,000	17,000
Louisiana	16,500	42,000	42,000
Maine	15,000	5,000	5,000
Maryland	5,000	20,000	20,000
Massachusetts	- -	1,000	1,000
Michigan	30,000	25,000	25,000
Minnesota	50,000	18,000	18,000
Mississippi	14,500	41,000	41,000
Missouri	28,000	30,000	30,000
Montana	14,000	15,000	15,000
Nebraska	5,000	8,000	8,000
New Hampshire	10,000	8,000	8,000
New Jersey	12,000	10,000	10,000
New York	30,000	15,000	15,000
North Carolina	14,000	54,000	54,000
Ohio	14,000	10,000	10,000
Oklahoma	10,000	16,000	16,000
Oregon	60,000	46,000	46,000
Pennsylvania	29,000	30,000	30,000
South Carolina	22,000	28,000	28,000
Tennessee	14,000	33,000	33,000
Texas	15,000	56,000	56,000
Vermont	5,500	6,000	6,000
Virginia	23,000	57,000	57,000
Washington	60,000	50,000	50,000
West Virginia	10,000	5,000	5,000
Wisconsin	20,000	12,000	12,000
Wyoming	10,000	10,000	10,000
Special projects	2,000	33,400	33,400
Subtotal	746,000	1,016,400	1,016,400
Forest Service administration and technical assistance	267,000	338,600	342,600
Total	1,013,000	1,355,000	1,359,000

Program and Financing (in thousands of dollars)

Identification code 05-96-1101-0-1-302		19 74 actual	19 75 estimate	19 76 estimate
	Program by activities:			
	Tree planting assistance (program costs, funded) 1/	998	1,379	1,359
	Change in selected resources (undelivered orders)	101	.....	.....
10	Total obligations	1,099	1,379	1,359
	Financing:			
21	Unobligated balance available, start of year	-110	-24	.....
24	Unobligated balance available, end of year	24	.....	.....
40	Budget authority (appropriation)	1,013	1,344	1,359
44.20	Proposed supplemental for civilian pay raises	.....	11	.....
	Relation of obligations to outlays:			
71	Obligations incurred, net	1,099	1,379	1,359
72	Obligated balance, start of year	362	477	501
74	Obligated balance, end of year	-477	-501	-504
90	Outlays, excluding pay raise supplemental	984	1,345	1,355
91.20	Outlays from civilian pay raise supplemental	.....	10	1

1/ Includes capital outlay as follows: 1974, $2 thousand; 1975, $5 thousand; 1976, $5 thousand.

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-1101-0-1-302	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions	238	261	269
11.3 Positions other than permanent	12	9	10
Total personnel compensation	250	270	279
Personnel benefits:			
12.1 Civilian	22	26	26
21.0 Travel and transportation of persons	13	24	15
22.0 Transportation of things	1	1	1
23.0 Rent, communications, and utilities	2	13	16
24.0 Printing and reproduction	.....	3	3
25.0 Other services	110	42	17
26.0 Supplies and materials	2	.....	2
31.0 Equipment	1	.....	.....
99.0 Total obligations	1,099	1,379	1,359

Personnel Summary

Identification code 05-96-1101-0-1-302	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions ..	17	20	20
Full-time equivalent of other positions	2	1	1
Average paid employment	17	17	17
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions .	$11,174	$11,794	$11,794

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976 :Estimate	:7/1-9/30/76 Estimate
Assistance to States for tree planting	$1,359	$829

Program and Financing (in thousands of dollars)

Identification code 05-96-1101-0-1-302		7/1-9/30/76
	Program by activities:	
	Tree planting assistance (program costs, funded)	829
10	Total obligations	829
40	Budget authority (appropriation)	829
	Relation of obligations to outlays:	
71	Obligations incurred, net	829
72	Obligated balance, July 1	504
74	Obligated balance, September 30	-829
90	Outlays	504

Justification for Transition Period July 1-September 30, 1976

An estimate of $829,000 is requested for this appropriation which is about 61 percent of proposed funding at the fiscal year 1976 budget estimate of $1,359,000.

Section 401 of the Agricultural Act of 1956 provides assistance to States in their forestation and tree improvement projects. New and expanded tree improvement projects are partially or totally funded under this program through Federal-State agreements.

The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1975 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

Therefore, the 61 percent level is required for the transition period because of agreements with States honored during these three months.

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES
(Permanent appropriation)

		Permanent full-time positions
Appropriation, 1974	$3,277,838	106
Appropriation, 1975	1,260,000	53
Estimate, 1976	3,674,000	87
Change	+2,414,000	+34

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Construction and operation of recreation facilities	$3,208,387	$1,329,451	$3,674,000	$2,344,549
Unobligated balance brought forward	- -	-69,451	- -	69,451
Unobligated balance carried forward	69,451	- -	- -	- -
Appropriation or estimate	3,277,838	1,260,000	3,674,000	2,414,000

GOAL: Improve the operation and maintenance of critically needed National Forest System recreation facilities.

An increase of 34 permanent full-time positions is proposed to cover the anticipated increased program of over $2 million.

These are funds proposed for appropriation from admission and user fees collected under the Land and Water Conservation Fund Act of 1965, as amended (78 Stat. 897; 16 USC 4601-5; PL 93-81, 8/1/73).

They will be used:

(1) To maintain operation and maintenance standards at the fiscal year 1975 levels which otherwise would have been lowered.

(2) To enable strengthening of law and regulation enforcement to assure visitor safety and reduce vandalism.

Public Law 92-347, approved July 11, 1972, amended the Land and Water Conservation Fund Act of 1965 to provide that the Forest Service (and other bureaus) may collect recreation admission fees at designated National Recreation Areas and "special recreation use fees for the use of sites, facilities, equipment, or services furnished at Federal expense." After distribution to the States and Counties and Roads and Trails for States appropriation as required under the Acts of 5/23/08, 7/22/37, and 3/14/13, the remaining fees (65 percent of total collected) are to be deposited into a "special account in the Treasury of the United States to be administered in conjunction with, but separate from, the revenues in the Land and Water Conservation Fund. Revenues in the special account shall be available for appropriation without prejudice to appropriations from other sources for the same purposes, for any authorized outdoor recreation function of the agency by which the fees were collected."

Amounts Available for Appropriation (in thousands of dollars)

Identification code	19 74 actual	19 75 estimate	19 76 estimate
Unappropriated balance, start of year	624	.....	89
Revenue	2,654	1,349	3,585
Total available for appropriation .	3,278	1,349	3,674
Appropriation	-3,278	-1,260	-3,674
Unappropriated balance, end of year .	.....	89	.....

Program and Financing (in thousands of dollars)

Identification code 05-96-5009-0-2-302		19 74 actual	1975 estimate	1976 estimate
	Program by activities:			
	Construction, reconstruction, administration, operation, and maintenance of recreation facilities (program costs, funded) 1/	2,826	1,561	3,624
	Change in selected resources (undelivered orders)	382	-232	50
10	Total obligations	3,208	1,329	3,674
	Financing:			
21	Unobligated balance available, start of year	.....	-69	.....
24	Unobligated balance available, end of year	69	.....	.....
40	Budget authority (appropriation) (indefinite, special fund)	3,278	1,260	3,674
	Relation of obligations to outlays:			
71	Obligations incurred, net	3,208	1,329	3,674
72	Obligated balance, start of year	.....	828	397
74	Obligated balance, end of year	-828	-397	-671
90	Outlays	2,380	1,760	3,400

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-5009-0-2-302		1974 actual	1975 estimate	1976 estimate
	Personnel compensation:			
11.1	Permanent positions	1,210	555	1,400
11.3	Positions other than permanent	714	350	715
11.5	Other personnel compensation	44	13	30
	Total personnel compensation	1,968	918	2,145
	Personnel benefits:			
12.1	Civilian	188	64	200
21.0	Travel and transportation of persons	26	24	40
22.0	Transportation of things	71	20	75
23.0	Rent, communications, and utilities	98	31	115
24.0	Printing and reproduction	7	1	5
25.0	Other services	215	82	370
26.0	Supplies and materials	372	125	470
31.0	Equipment	80	27	100
32.0	Lands and structures	195	43	160
	Subtotal	3,220	1,335	3,680
95.0	Quarters and subsistence charges	-12	-6	-6
99.0	Total obligations	3,208	1,329	3,674

Personnel Summary

Identification code 05-96-5009-0-2-302	19 74 actual	19 75 estimate	19 76 estimate
Total number of permanent positions ..	106	53	87
Full-time equivalent of other positions	89	42	71
Average paid employment	178	81	144
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions .	$11,174	$11,794	$11,794

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976 :Estimate:	:7/1-9/30/76 Estimate
Construction and operation of recreation facilities	$3,674	$2,212

Program and Financing (in thousands of dollars)

Identification code 05-96-5009-0-2-302	7/1-9/30/76
Program by activities:	
Construction, reconstruction, administration, operation, and maintenance of recreation facilities (program costs, funded) 1/	2,212
10 Total obligations	2,212
40 Budget authority (appropriation)	2,212
Relation of obligations to outlays:	
71 Obligations incurred, net	2,212
72 Obligated balance, July 1	671
74 Obligated balance, September 30	-1,383
90 Outlays	1,500
1/ Includes capital outlay as follows:	$100 thousand.

CONSTRUCTION AND OPERATION OF RECREATION FACILITIES

Justification for Transition Period July 1-September 30, 1976

Public Law 92-347 amended the Land and Water Conservation Fund Act of 1965 to provide that the Forest Service (and other bureaus) may collect recreation admission fees at designated National Recreation Areas. Approximately 65 percent of the fees collected are then made available for appropriation to this account.

It is estimated that $2,212,000 of the funds available will be needed for the transition period to operate and maintain recreation facilities on the National Forests and to assure visitor safety and reduce vandalism. Historically, accelerated activity in the National Forests is experienced in the summer months.

ACQUISITION OF LANDS FOR UINTA NATIONAL FOREST

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Acquisition of lands for Uinta National Forest	$27,504	$67,585	- -	-$67,585
Unobligated balance brought forward	-95,089	-67,585	- -	67,585
Unobligated balance carried forward	67,585	- -	- -	- -
Appropriation or estimate	- -	- -	- -	- -

Public Law 89-226 authorized the purchase of approximately 10,000 acres of non-Federally owned land within a described part of the Uinta National Forest in Utah for the purpose of promoting the control of floods and the reduction of soil erosion through restoration of adequate vegetative cover. $300,000 were appropriated in fiscal year 1967.

As of June 30, 1974, 9,395 acres have been acquired at a cost of $232,415.

ACQUISITION OF LANDS FOR WASATCH NATIONAL FOREST

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Acquisition of lands for Wasatch National Forest	$19,194	$217,065	- -	-$217,065
Unobligated balance brought forward	-236,259	-217,065	- -	217,065
Unobligated balance carried forward	217,065	- -	- -	- -
Appropriation or estimate	- -	- -	- -	- -

The Act of September 14, 1962 (PL 87-661) provided authorization for the appropriation of $400,000 for purchase of privately owned lands within the Wasatch National Forest in Utah to aid in control of floods and to reduce soil erosion. The full amount of this authorization has been appropriated with the funds remaining available until expended.

As of June 30, 1974, approximately 12,900 acres had been approved for purchase under this authority.

ACQUISITION OF LANDS FOR SUPERIOR NATIONAL FOREST

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Acquisition of lands for Superior National Forest	$18	$253	- -	-$253
Unobligated balance brought forward	-271	-253	- -	253
Unobligated balance carried forward	253	- -	- -	- -
Appropriation or estimate	- -	- -	- -	- -

The Act of June 22, 1948 (PL 80-733) as amended, provided authorization for the appropriation of $4.5 million for the purchase of lands and improvements thereon in the Boundary Waters Canoe Area, Superior National Forest, Minnesota. The full amount of this authorization has been appropriated.

ACQUISITION OF LANDS FOR CACHE NATIONAL FOREST

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Acquisition of lands for Cache National Forest	- -	$10,649	- -	-$10,649
Unobligated balance brought forward	-$10,649	-10,649	- -	10,649
Unobligated balance carried forward	10,649	- -	- -	- -
Appropriation or estimate	- -	- -	- -	- -

The 1956 Appropriation Act provided $200,000 for the acquisition of lands in the Cache National Forest pursuant to the Act of July 24, 1956 (70 Stat. 632). Obligations under this fund are in addition to the appropriation from National Forest receipts authorized by the Act of May 11, 1938, and provided in the appropriation, Acquisition of Lands for National Forests, Special Acts. Under the 1956 Act, funds appropriated must be matched by contribution of funds or land by local agencies or persons. Explanation of this program and the accomplishments thereunder are included under the appropriation, Acquisition of lands for national forests, special acts.

OTHER GENERAL FUNDS

Program and Financing (in thousands of dollars)

Identification code 05-96-9998-0-1-302	1974 actual	1975 estimate	1976 estimate
Program by activities:			
1. Acquisition of lands for Uinta National Forest, Utah	20	75	.....
2. Acquisition of lands for Wasatch National Forest, Utah	20	217	.....
3. Acquisition of lands for Superior National Forest, Minnesota	.....	.....	.....
4. Acquisition of lands for Cache National Forest, Utah	.....	11	.....
Total program costs, funded 1/	40	303	.....
Change in selected resources (undelivered orders)	7	-7	.....
10 Total obligations (object class 32.0)	47	296	.....
Financing:			
21 Unobligated balance available, start of year	-342	-296	.....
24 Unobligated balance available, end of year	296	.....	.....
Budget authority	.....	.....	.....

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-9998-0-1-302		1974 actual	1975 estimate	1976 estimate
	Relation of obligations to outlays:			
71	Obligations incurred, net	47	296	.....
72	Obligated balance, start of year	.....	7	.....
74	Obligated balance, end of year	-7	.....	.....
90	Outlays	40	303	.....
	Distribution of outlays by account:			
	Acquisition of lands for Uinta National Forest	20	.....	.....
	Acquisition of lands for Wasatch National Forest	20	218	.....
	Acquisition of lands for Superior National Forest	.....	74	.....
	Acquisition of lands for Cache National Forest	.....	11	.....

1/ Includes capital outlay as follows: 1974, $20 thousand; 1975, $275 thousand.

CONSOLIDATED WORKING FUND

Program and Financing (in thousands of dollars)

Identification code 05-96-3911-0-4-302		1974 actual	1975 estimate	1976 estimate
	Program by activities:			
	1. Services for other Federal agencies	770	2,483	.....
	2. Forest research at experimental forests and ranges, and for foreign countries	18	.....	.....
	3. National Operation Mainstream Program (Department of Labor)	2,295	200	450
	Total program costs, funded 1/	3,082	2,683	450
	Change in selected resources (undelivered orders)	993	210	-50
10	Total obligations	4,075	2,893	400
	Financing:			
	Receipts and reimbursements from:			
11	Federal funds	-4,803	-1,211	.....
21	Unobligated balance available, start of year	-1,355	-2,082	-400
24	Unobligated balance available, end of year	2,082	400	.....
	Budget authority	.....	.....	.....
	Relation of obligations to outlays:			
71	Obligations incurred, net	-728	1,682	400
72	Obligated balance, start of year	204	1,716	100
74	Obligated balance, end of year	-1,716	-100	.....
90	Outlays	-2,239	3,298	500

1/ Includes capital outlay as follows: 1974, $7 thousand; 1975, $5 thousand; 1976, $5 thousand.

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-3911-0-4-302		1974 actual	1975 estimate	1976 estimate
	Personnel compensation:			
11.1	Permanent positions	116	215	160
11.3	Positions other than permanent	1,926	1,131	125
11.5	Other personnel compensation	1	.....	.....
	Total personnel compensation	2,043	1,346	285
	Personnel benefits:			
12.1	Civilian	128	179	25
21.0	Travel and transportation of persons	38	24	.....
22.0	Transportation of things	32	40	.....
23.0	Rent, communications, and utilities	4	3	.....
25.0	Other services	58	198	.....
26.0	Supplies and materials	7	20	.....
31.0	Equipment	9	7	.....
41.0	Grants, subsidies, and contributions	1,757	1,077	90
	Subtotal	4,076	2,894	400
95.0	Quarters and subsistence charges	-1	-1	.....
99.0	Total obligations	4,075	2,893	400

Personnel Summary

Identification code 05-96-3911-0-4-302	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions ..	12	16	12
Full-time equivalent of other positions	475	252	25
Average paid employment	484	268	37
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions .	$11,174	$11,794	$11,794

YOUTH CONSERVATION CORPS

NOTE: For budgetary purposes, the entire appropriation is shown under the Forest Service. However, one-half of the appropriation each year is transferred to the Department of the Interior.

	1/	Permanent full-time positions
Appropriation, 1974	$10,000,000	22
Appropriation, 1975	10,392,000	58
Estimate, 1976	10,400,000	58
Change	+8,000	- -

Adjustments to 1975 appropriation:	
Appropriation Act, 1975	$10,240,000
Proposed supplemental for increased pay costs	152,000
Adjusted base for 1976	10,392,000
Estimate, 1976	10,400,000
Change	+8,000

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Youth Conservation Corps	$7,776,691	$11,640,690	$10,400,000	-$1,240,690
Unobligated balance brought forward	-2,106,381	-4,329,690	-3,081,000	1,248,690
Unobligated balance carried forward	4,329,690	3,081,000	3,081,000	- -
Total available or estimate 1/	10,000,000	10,392,000	10,400,000	+8,000
Supplemental appropriation	- -	-152,000		
Appropriation or estimate	10,000,000	10,240,000		

1/ Includes allocation to Department of the Interior: 1974, $5,000,000; 1975, $5,196,000; 1976, $5,200,000. Excludes following positions in Interior: 1974, 4; 1975, 8; 1976, 8.

An increase of $8,000 is proposed to provide for increased pay costs. No change in permanent full-time positions is proposed.

GOAL: To provide gainful summer employment for young men and women in conservation work and offer a broad variety of educational experiences to them as they learn ways to improve the quality and productivity of land, air, and water.

The Act of August 13, 1970 (84 Stat. 794), as amended, authorizes continuation of the Youth Conservation Corps Program on Federal lands, and established a grant program to assist States in establishing YCC projects on non-Federal public lands. The Department of the Interior and Agriculture share the program equally.

The primary purposes of the program are to:

(1) Provide gainful employment to 15 through 18 year old youths representing all segments of society.

(2) Further development and maintenance of the natural resources of the United States by the youth, upon whom will fall the ultimate responsibility for maintaining and managing these resources for the American people.

(3) Develop an understanding and appreciation in Corps participants of the Nation's natural environment and heritage.

This integrated conservation work, learn, and employment program is designed to accomplish needed conservation work, provide employment and income to youth, teach

proper work habits, encourage greater appreciation of the management of natural resources, and increase individual pride and dignity. Conservation work-learn projects on public lands include recreation facilities maintenance and construction, range and wildlife habitat improvement, timber stand improvement, trail improvement and construction, and visitor information services. Recruiting guidelines have been established to meet the mandate of the Congress that there be a representative mix of youth from all economic, social, and racial backgrounds.

Evaluation of the Federal pilot YCC programs in 1971, 1972, and 1973 by Department personnel and the University of Michigan's Institute for Social Research indicates that the purposes of the Act were achieved. With $10 million provided for the 1974 summer program, the approximately 10,000 young men and women employed accomplished conservation work appraised at a value of over $2 million. They also found significant gains in environmental education.

Program and Financing (in thousands of dollars)

	Identification code 05-96-1125-0-1-302	1974 actual	1975 est.	1976 est.
	Program by activities:			
	Program development (program costs, funded)[1]	5,678	10,641	10,400
	Change in selected resources (undelivered orders)	2,099	1,000	---
10	Total obligations	7,777	11,641	10,400
	Financing:			
21	Unobligated balance available, start of year	−2,106	−4,330	−3,081
24	Unobligated balance available, end of year	4,330	3,081	3,081
	Budget authority	**10,000**	**10,392**	**10,400**
	Budget authority:			
40	**Appropriation**	**10,000**	**10,240**	**10,400**
44.20	**Proposed supplemental for civilian pay raises**	---	152	---
	Relation of obligations to outlays:			
71	Obligations incurred, net	7,777	11,641	10,400
72	Obligated balance, start of year	1,198	3,706	4,208
74	Obligated balance, end of year	−3,706	−4,208	−4,208
90	Outlays, excluding pay raise supplemental	5,269	11,000	10,387
91.20	Outlays from civilian pay raise supplemental	---	139	13

[1] Includes capital outlays as follows: 1974, $23 thousand; 1975, $50 thousand; 1976, $50 thousand.

Object Classification (in thousands of dollars)

Identification code 05-96-1125-0-1-302		1974 actual	1975 est.	1976 est.
	FOREST SERVICE			
	Personnel compensation:			
11.1	Permanent positions	326	706	720
11.3	Positions other than permanent	437	722	735
11.5	Other personnel compensation	27	38	40
11.8	Special personal services payments	554	413	420
	Total personnel compensation	1,344	1,879	1,915
12.1	Personnel benefits: Civilian	97	143	145
13.0	Benefits for former personnel		3	
21.0	Travel and transportation of persons	49	66	70
22.0	Transportation of things	116	195	180
23.0	Rent, communications, and utilities	53	95	85
24.0	Printing and reproduction	14	35	30
25.0	Other services	457	949	678
26.0	Supplies and materials	265	750	600
31.0	Equipment	24	75	70
32.0	Lands and structures	1	2	2
41.0	Grants, subsidies, and contributions	54	50	50
42.0	Insurance claims and indemnities	1		
	Subtotal	2,475	4,242	3,825
95.0	Quarters and subsistence charges	−11	−15	−15
	Total obligations, Forest Service	2,464	4,227	3,810

Object Classification (in thousands of dollars)

Identification code 05-96-1125-0-1-302		1974 actual	1975 est.	1976 est.
	DEPARTMENT OF THE INTERIOR			
	Personnel compensation:			
11.1	Permanent positions	62	132	132
11.3	Positions other than permanent	390	522	526
	Total personnel compensation	452	654	658
12.1	Personnel benefits: Civilian	52	64	64
21.0	Travel and transportation of persons	112	117	128
22.0	Transportation of things	17	22	20
23.0	Rent, communications, and utilities	16	27	27
24.0	Printing and reproduction	10	15	12
25.0	Other services	1,770	3,442	2,634
26.0	Supplies and materials	110	251	234
31.0	Equipment	28	42	33
41.0	Grants, subsidies, and contributions	2,746	2,780	2,780
	Total obligations, Department of the Interior	5,313	7,414	6,590
99.0	Total obligations	7,777	11,641	10,400

Personnel Summary

Identification code 05-96-1103-0-1-302	1974 actual	1975 est.	1976 est.
FOREST SERVICE			
Total number of permanent positions	22	58	58
Full-time equivalent of other positions	54	82	82
Average paid employment	76	136	136
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions	$11,174	$11,794	$11,794
DEPARTMENT OF THE INTERIOR			
Total number of permanent positions	4	8	8
Full-time equivalent of other positions	84	90	90
Average paid employment	88	98	98
Average GS grade	9.50	9.70	9.70
Average GS salary	$15,500	$16,000	$16,000
Average salary of ungraded positions	$8,700	$9,000	$9,000

YOUTH CONSERVATION CORPS 1/

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976 :Estimate:	:7/1-9/30/76 Estimate
Youth Conservation Corps	$10,400	$8,054

1/ Includes allocation to Department of the Interior: 1976, $5,200 and 7/1-9/30/76, $4,027.

Program and Financing (in thousands of dollars)

Identification code 05-96-1125-0-1-302		7/1-9/30/76
	Program by activities:	
	Program development (program costs, funded) 1/	8,054
10	Total obligations	8,054
	Financing:	
21	Unobligated balance available, July 1	-3,081
24	Unobligated balance available, September 30	3,081
40	Budget authority (appropriation)	8,054
	Relation of obligations to outlays:	
71	Obligations incurred, net	8,054
72	Obligated balance, July 1	4,208
74	Obligated balance, September 30	-4,220
90	Outlays	8,042
1/ Includes capital outlay as follows:		$40 thousand.

Justification for Transition Period July 1-September 30, 1976

An estimate of $8,054,000 is requested for this appropriation which is about 79 percent of proposed funding at the fiscal year 1976 budget estimate of $10,240,000.

Since this program provides gainful employment for young men and women in conservation work during the summer months, requirements for the transition period are much greater than pro rata of the 1976 request.

The relationship of the obligations and outlays for the period July 1 through September 30, 1974, to the total fiscal year 1976 program was used as a basis for determining the obligations and outlays for the transition period. The current rates were applied to the fiscal year 1976 program.

ADMINISTRATIVE PROVISIONS, FOREST SERVICE

Proposed Changes in Language

Changes in language are proposed as follows. New language is underscored and deleted matter is enclosed in brackets.

Appropriations to the Forest Service for the current fiscal year, and for the period July 1, 1976, through September 30, 1976, shall be available for: (a) purchase of not to exceed [three] two hundred [thirty-three] eighty-one passenger motor vehicles of which two hundred [sixty-seven] twenty-five shall be for replacement only, ... (b) employment pursuant to ..... and not to exceed $100,000 for fiscal year 1976, and $100,000 for the period July 1, 1976, through September 30, 1976, for employment ..... (f) acquisition of land and interests therein for sites for administrative and not to exceed $75,000 for fiscal year 1976, and $75,000 for the period July 1, 1976, through September 30, 1976, for research purposes ..... (h) not to exceed $100,000 for fiscal year 1976, and $100,000 for the period July 1, 1976, through September 30, 1976, for expenses pursuant to the Volunteers in the National Forests Act .....

.....

[None of the funds made available under this Act shall be obligated or expended to change the boundaries of any region, to abolish any region, to move or close any regional office for research, State and private forestry, and National Forest System administration of the Forest Service, Department of Agriculture, without the consent of the Committee on Appropriations and Committee on Agriculture and Forestry in the U.S. Senate and U.S. House of Representatives.]

Change 1 would provide necessary authority to continue various activities during the transition period of July 1 through September 30, 1976.

Changes 2 and 3 would provide authority to purchase 281 passenger motor vehicles of which 225 will be replacements.

PASSENGER CARRYING VEHICLES

Replacements

During fiscal year 1976, it is proposed that the Forest Service replace 225 passenger carrying vehicles. Of these, 220 will meet replacement standards and five will require replacement because of accidents or excessive maintenance costs.

Dependability of passenger carrying vehicles is an important factor in keeping work programs on schedule and in meeting emergencies. Vehicle breakdowns while on field travel cause disruptions and delays in field work as well as loss of effective work time of employees. The continued use of over-aged equipment is undesirable from a safety standpoint since most of it is operated over rough, narrow, winding roads in mountainous country under adverse conditions. This use generally results in excessive operating and repair expenses when vehicles reach or exceed replacement standards.

In order to maintain passenger carrying vehicles in a safe and satisfactory operating condition, it is the policy of the Forest Service to schedule periodic preventive maintenance inspections, services, and tune-ups to reduce the necessity for costly repairs and major overhauls, and to minimize lost time resulting from field breakdowns.

It is desirable to maintain a reasonable balance in the age class of the passenger vehicle inventory. The age class distribution is based upon conforming with replacement standards which recognize that some units will be retired under the age standards and others under the use standard. Prescribed replacement standards, although applicable, are not always appropriate for all Forest Service vehicles because of the wide range of operating conditions and the comparatively short field season in many of the National Forests at higher elevations. Decision on replacement of passenger-carrying vehicles which reach replacement age is based on an

appraisal of each unit. This involves a review of the history record combined with a mechanical inspection of the vehicle's condition and repair liability. When such appraisal indicates that the vehicle is satisfactory for further service without unreasonable repair expenditures, it is retained and assigned to lighter work, even though such action tends to upset the age standards for the fleet inventory.

The vehicles selected for replacement are those which cannot be operated another season without excessive repair expense. They are unsatisfactory for further use both as to safety and mechanical condition. The replacement authorization requested is within the normal annual replacement standards prescribed by the General Services Administration.

Essentially all passenger-carrying vehicles are pooled for use by all activities with replacement of pooled units financed from a Working Capital Fund. All appropriations reimburse this fund in ratio to use of vehicles on activities financed by the respective appropriations.

None of the replacements requested will be assigned to areas served or scheduled to be served by Interagency pools.

Additions

It is proposed that the Forest Service purchase 56 additional passenger carrying vehicles to replace pickups, carryalls and sedan deliveries. Since sedans and station wagons are better suited to the needs and are less costly to operate, we prefer replacement with passenger-carrying vehicles.

Sedans or station wagons cost less to operate and maintain than a truck. During fiscal year 1975, the Forest Service is replacing 66 light trucks, such as carryalls, pickups, panels, and sedan delivery trucks, with sedans and station wagons. The total estimated cost savings is $13,200 per year. The substitution of 56 passenger-carrying vehicles for light trucks in fiscal year 1976 would result in an additional savings of about $11,200 each year.

The Forest Service analyzes current work plans and program in determining its overall passenger-carrying vehicle requirements. This analysis includes a careful study of the number of vehicles needed at each field station using as a guiding principle the ownership of only the minimum number of dependable units required to serve programs for which funds are budgeted. Also, it is Forest Service policy to utilize Interagency Motor Pools or commercial car rental services to the fullest practicable extent. Passenger car use is restricted and is integrated with various activities so as to attain good utilization of all vehicles.

Additions are financed from program funds in direct relationship to the anticipated use of the equipment. Distribution of costs to appropriations is based on analysis of use of the equipment fleet for the past three years and the estimated use for the budget year.

Number of Vehicles

The Forest Service had a fleet of 1,137 passenger-carrying vehicles at the start of the fiscal year 1975. It is planned to add 66 units and dispose of 67 units during the year, making a total of 1,136 units available at the start of fiscal year 1976, excluding possible transfers to other agencies. It is proposed that the total number of passenger-carrying vehicles be increased to 1,192 by the end of fiscal year 1976.

As of June 30, 1974, the age and mileage classes of the passenger-carrying vehicles on hand, exclusive of 28 buses, were:

Age Data

Year	Number of Vehicles
1969 and older	293
1970	156
1971	81
1972	76
1973	260
1974	243
Total	1,109

Mileage Data

Miles	Number of Vehicles
60,000 and over	285
50,000 to 59,999	125
40,000 to 49,999	108
30,000 to 39,999	64
20,000 to 29,999	81
10,000 to 19,999	171
0 to 9,999	275
Total	1,109

Use of Vehicles

Passenger-carrying vehicles are used by:

(1) Forest officers in the protection, utilization, management, and development of the National Forests and land utilization projects and in the program for control of forest pests.

(2) Research technicians on experimental forests, and ranges, on field research projects and forest surveys.

(3) Foresters engaged in carrying out the laws providing for State and private forestry cooperation.

(4) Regional office field-going administrative personnel in performing, directing, and inspecting field work.

The Forest Service is essentially a field organization and its passenger-carrying vehicles are located mainly at regional, National Forest, and ranger district headquarters, and experimental forests and ranges. There are over 225 million acres within the exterior boundaries of the National Forest.

About 631 million acres of State and private forest land are included within the areas which benefit from Federal participation in the cooperative forest program. Much of this area is without common carrier service, and most forest areas and research centers are remote from commercial travel routes, requiring extensive use of motor vehicles as a means of transportation. The major portion of transportation needs, particularly at regional and forest supervisor levels and at other larger headquarters, involves multiple passenger use and can be more expeditiously and economically met by use of sedans and station wagons than by other types of vehicles.

AIRCRAFT

Replacement of Aircraft

The 1976 estimates propose replacement of four aircraft by purchase and replacements with more suitable aircraft by transfer from other agencies as available. The Forest Service currently has 53 aircraft:

7	Single-engine reconnaissance and transport airplanes
24	Light twin-engine reconnaissance and transport airplanes
16	Medium and heavy cargo and transport airplanes (9 medium, 7 heavy)
5	T34-B lead planes (2-place scout)
1	Multi-engine airplane converted to an air tanker
53	

The replacements by purchase will be primarily medium twin-engine airplanes suitable for leadplane work in directing air tanker retardant dropping attack on forest fires. The North American OV-10A Bronco, currently being used by the Air Force is considered to have desirable characteristics.

Two large helicopters are on loan from the Army. These helicopters are being used for test and evaluation project in determining suitability of specific vision equipment for night helicopter operation. The equipment includes the Iroquois Night Fighter and Night Tracker (INFANT) and Forward Looking Infrared (FLIR) systems, and the night vision goggles. The loan of the helicopters will be terminated when the evaluation project is completed.

One light twin-engine airplane is modified, equipped, and used primarily for fire mapping with infrared equipment in low visibility of smoke and at night Two medium twin-engine airplanes are modified, equipped and used primarily for high altitude fire detection usually at night with infrared equipment.

The multi-engine airplane obtained from the military was converted to air tanker configuration for test and evaluation project to determine if suitable for dropping retardants. It is now being used in a research project on optimum size and shape tanks for retardant dropping.

The multipurpose reconnaissance and transport airplanes are used primarily to transport smokejumpers, firefighters, administrative personnel, equipment and supplies to remote and inaccessible areas where commercial services are inadequate or not available for protection and suppression of forest fires. Other use is to locate and survey timber stand and vegetation conditions such as insect infestations, blowdown, diseased areas, undesirable species, and to appraise resources and damage and evaluate effectiveness of control.

The T34-B lead airplanes are primarily single-purpose military model aircraft used by air tanker bosses to direct and control the dropping of retardants on forest fires by contract air tankers. These are to be replaced with light twins to provide two engine safety and improved efficiency.

The services of suitable airplanes to perform specific Forest Service missions are becoming increasingly more difficult to obtain from commercial sources. In some locations only the Forest Service needs certain type of flights and they are insufficient in number to warrant operators furnishing the service. Aviation operators must therefore give first consideration to furnishing services for best revenue. In many instances the aircraft available is not suitable for Forest Service work.

Four heavy twin-engine transport airplanes are leased and operated for dual purpose in transporting firefighting crews or dropping smokejumpers. Three leased light twins fill additional requirements for leadplanes in directing air tanker retardant attack on fires.

Two single-engine T-28's are on temporary loan from the Navy for evaluation as air tanker leadplanes, especially where faster speed is needed.

Aircraft purchases are financed from either appropriated funds or the Forest Service Working Capital Fund, or a combination of both. Replacement costs of aircraft partially or completely destroyed in a crash accident are financed from program funds in relationship to anticipated use.

Change 4 would eliminate the language which was added to the Appropriations Bill by the Appropriations Committees to assure that the present Forest Service regional system is maintained and that the Congress has a role in any further regional reorganization plans.

If the Appropriations Committees were to continue to include language in appropriations bills requiring Congressional approval of reorganization proposals, our ability to implement needed reorganizations would be considerably slowed.

The Forest Service has made many changes in organization through the years to obtain the most efficient economic operation. These changes came as a result of extensive study and considered improved transportation, technology and methods of doing business. The administration of the National Forest System has been improved as a result of these changes.

This language might limit the ability of Forest Service management to take advantage of opportunities to improve efficiency and effectiveness by shifting Regional boundaries.

It is proposed that this language not be included in future appropriation bills.

The Forest Service plans to obtain the views of the Appropriations Subcommittees and the Agriculture and Forestry Committees in the House and Senate and members of Congress who would be affected before implementing regional reorganization plans even without this language.

ROADS AND TRAILS FOR STATES, NATIONAL FORESTS FUND
(Permanent appropriation)

Appropriation, 1974	$45,468,547
Appropriation, 1975	47,003,064
Estimate, 1976	47,975,000
Change (due to an estimated increase in National Forest receipts in fiscal year 1975)	971,936

The permanent appropriation of 10 percent of National Forest receipts pursuant to the Act of March 4, 1913 (16 USC 501) is transferred to and merged with the annual appropriation for Forest Roads and Trails. The explanation of the use of these funds is included in the justification for that appropriation item.

EXPENSES, BRUSH DISPOSAL
(Permanent appropriation)

		Permanent full-time positions
Appropriation, 1974	$25,199,361	518
Estimate, 1975	30,000,000	548
Estimate, 1976	33,000,000	599
Change	+3,000,000	+51

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Brush disposal	$22,975,199	$29,637,000	$32,028,000	$2,391,000
Unobligated balance brought forward	-23,553,865	-25,778,027	-26,141,027	-363,000
Unobligated balance carried forward	25,778,027	26,141,027	27,113,027	972,000
Appropriation or estimate	25,199,361	30,000,000	33,000,000	+3,000,000

GOAL: To increase the productivity of forest lands.

An increase of $2,391,000 in program level in 1976, together with an increase of 51 permanent full-time positions, is proposed.

Timber cutting usually increases the fire hazard because of dry fuel increase in the form of logging slash. This slash may also:

(1) Impair reforestation.
(2) Contribute to the buildup of insect populations.
(3) Cause damage to stream channels.
(4) Degrade esthetics of the forest environment.

When disposal of brush and other debris is necessary, National Forest timber sale contracts require treatment or deposit of funds for treatment of debris resulting from timber sale operations. When economical and expedient the work is performed by the timber purchaser. When not done by the purchaser, it is done by the Government, using deposits to cover costs of the work as authorized under Section 6 of the Act of April 24, 1950 (16 USC 490).

The effect of timber cutting and the manner of treating slash vary widely among regions. Brush disposal may be accomplished in several ways such as crushing, chipping, burning, or extra fire protection through the critical phase of natural disposal. Combinations of these are often used.

In the Eastern Regions, low volume cut per acre, high utilization, and rapid decomposition reduce the slash disposal work necessary. Exceptions occur in sales where a heavy cut per acre is made, such as the jack pine stands of Minnesota. In such areas, slash is crushed and mixed with mineral soil by disking with heavy equipment. This reduces the hazard and provides a good seedbed to aid regeneration. Treatment of slash to prevent insect epidemics is sometimes necessary in these areas.

In contrast, more slash disposal is required on most sale areas of the West. High volume per acre generally produces heavy slash. Long dry periods with lightning and man-caused fire risk result in extremely hazardous fire potential. The warm, humid conditions necessary for rapid slash deterioration seldom occur. Treatment varies greatly with different methods of cutting, but generally requires some burning to reduce volumes of slash fuels. Slash may be burned in place or piled and burned under varied weather conditions. Fuel arrangements are planned which allow burning at times when smoke dispersal is favorable and will not influence air quality in population areas. The emphasis on more complete timber utilization will reduce the volumes of slash fuels that will be disposed of by burning.

Within regions, slash disposal follows general prescriptions. Individual needs of each sale are planned and appraised prior to advertisement of the sale. The appropriate specific requirements are incorporated into each timber sale contract. In each instance, the method used will require adequate ecological, environmental, and resource protection at the least expense.

LICENSEE PROGRAMS
(Permanent appropriation)

		Permanent full-time positions
Appropriation, 1974	$209,432	3
Estimate, 1975	265,000	4
Estimate, 1976	250,000	5
Change	-15,000	+1

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Licensee Programs:				
Smokey Bear	$181,958	$279,000	$278,000	-$1,000
Woodsy Owl	- -	30,000	50,000	20,000
Unobligated balance brought forward	-190,025	-217,499	-173,499	44,000
Unobligated balance carried forward	217,499	173,499	95,499	-78,000
Appropriation or estimate	209,432	265,000	250,000	-15,000

An increase of one permanent full-time position is proposed.

Fees for the use of characters by private enterprises are collected under regulations promulgated by the Secretary and are available as follows:

(1) Smokey Bear--for furthering the nationwide forest fire prevention campaign (18 USC 711 and 31 USC 488a).

(2) Woodsy Owl--for promoting wise use of the environment and programs which foster maintenance and improvement of environmental quality (31 USC 488b-3--6).

Examples of Recent Accomplishments

Installed new interpretive exhibit at Smokey's Home in the National Zoo, including the picture story of Smokey, Goldie and Little Smokey, and a clothes locker for Smokey's hat, shovel, and blue jeans.

Provided a basic grant for a new forest fire prevention film to be created and produced by San Diego State University. This badly-needed film will reflect the ideas of several undergraduates, with faculty evaluation and supervision of the film, and professional editing.

Expanded the Smokey Bear awards program to include a Silver Smokey award to Canadian Alan Beaven, Manager of the Manitoba Forestry Association. Also, during the past year, a Golden Smokey went to Walt Disney Productions for public service donations to the program from 1943 to 1973.

Proposed Change in Appropriation

Present Structure	Proposed Structure
FOREST FIRE PREVENTION	LICENSEE PROGRAMS: Woodsy Owl Smokey Bear

The following licensee programs have been authorized:

Woodsy Owl - for promoting wise use of the environment and programs which foster maintenance and improvement of environmental quality (31 USC 488b-3--6).

Smokey Bear - for furthering the nationwide forest fire prevention campaign (18 USC 711 and 31 USC 488a).

Fees for the use of these characters by private enterprises are collected under regulations promulgated by the Secretary of Agriculture and are available for the purposes indicated above.

Because of the similarities in depositing fees and obligating those fees for furthering the campaigns of Woodsy Owl and Smokey Bear, the appropriation title was changed from Forest Fire Prevention to Licensee Programs by the Treasury Department. The Licensee Programs appropriation includes both the Smokey Bear and Woodsy Owl programs. The change facilitates apportionment and reporting by merging the programs into one mainhead appropriation. The change would also provide for any future licensee programs to be incorporated in the one appropriation.

RESTORATION OF FOREST LANDS AND IMPROVEMENTS
(Permanent appropriation)

Appropriation, 1974	$68,205
Estimate, 1975	50,000
Estimate, 1976	50,000

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Restoration of forest lands and improvements	$23,027	$112,777	$50,000	-$62,777
Unobligated balance brought forward	-17,599	-62,777	- -	62,777
Unobligated balance carried forward	62,777	- -	- -	- -
Appropriation or estimate	68,205	50,000	50,000	- -

Recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers, who fail to complete performance of improvement, protection, or rehabilitation work required under the permit or timber sale contract, are used to cover the cost to the United States of completing such work on lands under Forest

Service administration. Funds received as settlement of a claim are used for improvement, protection, or rehabilitation made necessary by the action which led to the cash settlement (Act of June 20, 1958, 16 USC 579c).

No permanent full time positions are assigned to this appropriation.

PAYMENT TO MINNESOTA (COOK, LAKE, AND ST. LOUIS COUNTIES) FROM THE NATIONAL FORESTS FUND
(Permanent appropriation)

Appropriation, 1974	$259,038
Appropriation, 1975	259,038
Estimate, 1976	259,038

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Payment to Minnesota from the National Forests Fund (appropriation or estimate)	$259,038	$259,038	$259,038	- -

The Act of June 22, 1948, as amended (16 USC 577c-577h) provides that the Secretary of the Treasury, upon certification of the Secretary of Agriculture, shall pay to the State of Minnesota at the close of each fiscal year from any National Forest receipts not otherwise appropriated an amount equivalent to three-fourths of one percent of the fair appraised value of certain National Forest lands in the counties of Cook, Lake, and St. Louis situated within the Superior National Forest. The Act further provides that payment to the State shall be distributed to each of these counties in conformity with the fair appraised value of such National Forest lands in each county.

PAYMENTS TO COUNTIES, NATIONAL GRASSLANDS
(Permanent appropriation)

Appropriation, 1974	$586,381
Estimate, 1975	586,000
Estimate, 1976	586,000

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Payment to counties (appropriation or estimate)	$586,381	$586,000	$586,000	- -

At the end of each calendar year, 25 percent of the revenues from use of submarginal lands are paid to counties under the provisions of Title III of the Bankhead-Jones Farm Tenant Act, approved July 22, 1937 (7 USC 1012). Payments are made on the provision that they are used for school or road purposes, or both.

PAYMENTS TO SCHOOL FUNDS, ARIZONA AND NEW MEXICO
(Permanent appropriation)

Appropriation, 1974	$124,307
Estimate, 1975	190,862
Estimate, 1976	191,000
Change	+138

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Payments to school funds (appropriation or estimate)	$124,307	$190,862	$191,000	$138

Under provisions of the Act of June 20, 1910 (36 Stat. 562, 573) certain areas within National Forests were granted to the States for school purposes. The percentage that these lands are of the total National Forest area within the State is used in determining payments to the States. The receipts from all National Forest land within the State are used as the basis for applying the percentage. For example, if total receipts for the State are $100,000 and if 10 percent of lands are in the "granted for school purposes" category, the payment to the State would be $10,000. The amounts so paid are deducted from the net receipts before computing the 25 percent payments to States.

As soon after the close of the fiscal year as the receipts from National Forests and the area of school lands in the States of Arizona and New Mexico are determined, the payments are made to the States. Payments in fiscal year 1973 to Arizona were $113,212 and to New Mexico $831.

PAYMENTS TO STATES, NATIONAL FORESTS FUND
(Permanent appropriation)

Appropriation, 1974	$113,668,668
Estimate, 1975	119,482,282
Estimate, 1976	117,862,000
Change	-1,620,282

PROJECT STATEMENT

Project	1974	1975 Estimate	1976 Estimate	Increase or decrease
Payments to States (appropriation or estimate) ..	$113,668,668	$119,482,282	$117,862,000	-$1,620,282

The Act of May 23, 1908, as amended (16 USC 500) requires, with a few exceptions, that 25 percent of all money received from the National Forests during any fiscal year be paid to the States in which the forests are located, for the benefit of public schools and public roads of the county or counties in which such National Forests are situated. The amount of this appropriation varies each year in direct proportion to National Forest receipts during the previous fiscal year.

The amounts set aside from receipts collected from the sale of National Forest timber, grazing, special use permits, power, mineral leases, and admission and user fees, before the 25 percent is applied are listed below:

(1) Payment to the State of Minnesota covering certain National Forest lands in Counties of Cook, Lake, and St. Louis situated within the Superior National Forest is made under the terms of the Act of June 22, 1948, as amended (16 USC 577c-577h). Receipts collected from the areas covered by this Act are excluded when the 25 percent payment to the State of Minnesota is computed.

(2) For lands in certain counties in Utah, Nevada, and California, the States receive 25 percent of receipts only after funds, if made available by Congress, have been set aside for the acquisition of National Forest lands within the specified National Forests under the terms of special acts authorizing appropriations from forest receipts for this purpose.

(3) Payments to the States of Arizona and New Mexico under the provisions of the Act of June 20, 1910 (36 Stat. 562, 573), of shares of the gross receipts from the National Forests in those States which are proportionate to the areas of land granted to the States for school purposes within the National Forests.

Forest Service Permanent Appropriations

Program and Financing (in thousands of dollars)

Identification code 05-96-9999-0-2-999	1974 actual	1975 est.	1976 est.
Program by activities:			
1. Roads and trails for States, national forests fund	45,469	47,003	47,975
2. Brush disposal	21,908	29,637	32,028
3. Licensee programs, Forest Service	198	309	328
4. Restoration of forest lands and improvements	26	103	60
5. Payment to Minnesota	259	259	259
6. Payments to counties, national grasslands	586	586	586
7. Payments to school funds, Arizona and New Mexico	124	191	191
8. Payments to States, national forests fund	113,669	119,482	117,862
Total program costs, funded [1]	182,239	197,570	199,289
Change in selected resources (undelivered orders)	1,049	10	−10
10 Total obligations	183,287	197,580	199,279
Financing:			
21 Unobligated balance available, start of year	−23,761	−26,058	−26,314
24 Unobligated balance available, end of year	26,058	26,314	27,208
60 **Budget authority (appropriation)** (permanent, indefinite, special funds)	185,583	197,836	200,173

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Program and Financing (in thousands of dollars)

Identification code 05-96-9999-0-2-999	1974 actual	1975 est.	1976 est.
Distribution of budget authority by account:			
Roads and trails for States, national forests fund	45,469	47,003	47,975
Brush disposal	25,199	30,000	33,000
Licensee programs, Forest Service	209	265	250
Restoration of forest lands and improvements	68	50	50
Payment to Minnesota	259	259	259
Payments to counties, national grasslands	586	586	586
Payments to school funds, Arizona and New Mexico	124	191	191
Payments to States, national forests fund	113,669	119,482	117,862
Relation of obligations to outlays:			
71 Obligations incurred, net	183,287	197,580	199,279
72 Obligated balance, start of year	3,080	4,739	7,155
74 Obligated balance, end of year	−4,739	−7,155	−8,068
90 Outlays	181,628	195,164	198,366
Distribution of outlays by account:			
Roads and trails for States, national forests fund	45,469	47,003	47,975
Brush disposal	21,307	27,282	31,105
Licensee programs, Forest Service	188	264	323
Restoration of forest lands and improvements	26	97	65
Payment to Minnesota	259	259	259
Payments to counties, national grasslands	586	586	586
Payments to school funds, Arizona and New Mexico	124	191	191
Payments to States, national forests fund	113,669	119,482	117,862

[1] Includes capital outlay as follows: 1974, $525 thousand; 1975, $750 thousand; 1976, $1,000 thousand.

Object Classification (in thousands of dollars)

Identification code 05-96-9999-0-2-999		1974 actual	1975 est.	1976 est.
	Personnel compensation:			
11.1	Permanent positions	6,142	6,971	7,940
11.3	Positions other than permanent	6,554	7,425	8,500
11.5	Other personnel compensation	1,248	1,302	1,380
11.8	Special personal services payments	2	2	5
	Total personnel compensation	13,946	15,700	17,825
12.1	Personnel benefits: Civilian	1,143	1,284	1,445
21.0	Travel and transportation of persons	196	214	300
22.0	Transportation of things	1,115	1,375	1,800
23.0	Rent, communications, and utilities	692	1,025	1,250
24.0	Printing and reproduction	54	85	100
25.0	Other services	49,288	53,929	53,936
26.0	Supplies and materials	1,140	1,850	2,000
31.0	Equipment	971	1,450	1,500
32.0	Lands and structures	221	275	350
41.0	Grants, subsidies, and contributions	114,638	120,518	118,898
42.0	Insurance claims and indemnities	14	15	15
	Subtotal	183,418	197,720	199,419
95.0	Quarters and subsistence charges	−131	−140	−140
99.0	Total obligations	183,287	197,580	199,279

Personnel Summary

Total number of permanent positions	521	552	604
Full-time equivalent of other positions	870	923	1,030
Average paid employment	1,310	1,394	1,553
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions	$11,174	$11,794	$11,794

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976 :Estimate:	:7/1-9/30'76 Estimate
PERMANENT APPROPRIATIONS:		
Expenses, Brush Disposal	$33,000	$9,000
Licensee Programs:		
Smokey Bear	200	50
Woodsy Owl	50	25
Restoration of forest lands and improvements	50	15
Roads and Trails for States, National Forests Fund	47,975	51,600
Payment to Minnesota	259	259
Payments to Counties, National Grasslands	586	310
Payments to School Funds, Arizona and New Mexico	191	191
Payments to States, National Forests Fund	117,862	129,000
TOTAL, PERMANENT APPROPRIATIONS	200,173	190,450

Program and Financing (in thousands of dollars)

Identification code 05-96-9999-0-2-999		7/1-9/30/76
	Program by activities:	
	Direct program:	
	1. Roads and trails for States, National Forests Fund	51,600
	2. Brush disposal	10,000
	3. Licensee Programs, Forest Service	75
	4. Restoration of forest lands and improvements	15
	5. Payment to Minnesota	259
	6. Payments to counties, National Grasslands	310
	7. Payments to school funds, Arizona and New Mexico	191
	8. Payments to States, National Forests Fund	129,000
	Total program costs, funded 1/	191,450
10	Total obligations	191,450
	Financing:	
21	Unobligated balance available, July 1	-27,208
24	Unobligated balance available, September 30	26,208
60	Budget authority (appropriation) (permanent, indefinite, special funds)	190,450

1/ Includes capital outlay as follows: $250 thousand.

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-9999-0-2-999		
		7/1-9/30/76
	Distribution of budget authority by account:	
	Roads and trails for States, National Forests Fund	51,600
	Brush disposal	9,000
	Licensee Programs, Forest Service	75
	Restoration of forest lands and improvements	15
	Payment to Minnesota	259
	Payments to counties, national grasslands	310
	Payments to school funds, Arizona and New Mexico	191
	Payments to States, National Forests Fund	129,000
	Relation of obligations to outlays:	
71	Obligations incurred, net	191,450
72	Obligated balance, July 1	8,068
74	Obligated balance, September 30	-6,183
90	Outlays	193,335

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-9999-0-2-999			
	7/1-9/30/76		
Distribution of outlays by account:			
Roads and trails for States, National Forests Fund	51,600		
Brush disposal	12,210		
Licensee Programs, Forest Service	60		
Restoration of forest lands and improvements	15		
Payment to Minnesota	259		
Payments to counties, national grasslands	.....		
Payments to school funds, Arizona and New Mexico	191		
Payments to States, National Forests Fund	129,000		

Justification for Transition Period July 1-September 30, 1976
Budget Authority -- in thousands

	7/1-9/30/76 Estimate	Percent of FY 1976 Estimate
(1) Expenses, Brush Disposal	$9,000	27
Receipts are derived from deposits made by timber purchasers to cover costs of work necessary to treat debris resulting from timber sale operations.		
(2) Licensee Programs	75	30
Funds are derived from fees collected for the use of the "Smokey Bear" and "Woodsy Owl" characters by private enterprises.		
(3) Restoration of Forest Lands and Improvements	15	30
Recoveries from cash bonds or forfeitures under surety bonds by permittees or timber purchasers, who fail to complete performance of improvement, protection, or rehabilitation work required under the permit or timber sale contract, are used to cover the cost of completing such work on lands under Forest Service administration.		
(4) Roads and Trails for States, National Forests Fund	51,600	108
Approximately 10 percent of all money received from the National Forests are merged with the Roads and Trails appropriation to be used for the construction and maintenance of roads and trails in the National Forest System.		
(5) Payment to Minnesota	259	100
At the close of each fiscal year payment is made to Minnesota under the Act of June 22, 1948, as amended, for distribution to the counties of Cook, Lake, and St. Louis situated within the Superior National Forest. Funds are derived from National Forest receipts.		
(6) Payments to School Funds, Arizona and New Mexico ..	191	109
At the close of the fiscal year, a portion of the funds derived from receipts from the National Forests are paid to Arizona and New Mexico under the Act of June 20, 1910.		
(7) Payments to States, National Forests Fund	129,000	109
Under the Act of May 23, 1908, approximately 25 percent of monies received from the National Forests are paid to the States in which the forests are located for the benefit of public schools and roads of the counties in which such National Forests are situated.		

	7/1-9/30/76 Estimate	Percent of FY 1976 Estimate
(8) Payments to Counties, National Grasslands	$310	53

At the close of each calendar year, 25 percent of revenues from use of submarginal lands are paid to counties under the Bankhead-Jones Farm Tenant Act.

Items (1) - (3). The amounts shown for these items are projected to be collected and made available for appropriation during the transition period.

Items (4) - (7). The amounts shown are based on deposits of money received from National Forests during the period July 1, 1975, through June 30, 1976. These funds are not available for appropriation until after the close of the fiscal year in which collected. The increases in items (4) and (7) in the transition period over fiscal year 1976 are due to greater receipts in fiscal year 1976 than in fiscal year 1975.

Item (8). Amount shown is based on anticipated receipts for the period January 1 through June 30, 1976.

WORKING CAPITAL FUND

The Working Capital Fund was established by the Act of August 3, 1956 (16 USC 579b), as amended by the Act of October 23, 1962 (16 USC 579b). It is a self-sustaining revolving fund which provides services to National Forests, Experiment Stations, and when necessary, to other Federal agencies, and as provided by law, to State and private agencies and persons who cooperate with the Forest Service in fire control and other authorized programs.

	1974	1975	1976	Change
Permanent full-time positions	735	736	785	+49

An increase of $3,908,000 in program level is proposed in fiscal year 1976, together with an increase of 49 permanent full-time positions. Total 1976 program level proposed is $43.8 million.

The following services were provided by the Working Capital Fund in fiscal year 1974:

1. Equipment service.--This service owns, operates, maintains, and replaces approximately 13,500 pieces of common use motor driven and similar equipment. This equipment is rented to administrative units, i.e., National Forests, Experiment Stations and other units, and in some cases to other agencies, at rates which recover the cost of operation, repair and maintenance, management, and depreciation. The rates also include an increment which provides additional cash which when added to depreciation earnings and the residual value of equipment provides sufficient funds to replace the equipment. This service operates 86 repair shops.

2. Aircraft service.--This service operates and maintains Forest Service owned aircraft used in fire surveillance and suppression and in other Forest Service programs. The aircraft are based at 13 locations and are rented to National Forests, Experiment Stations, and in some cases to other agencies, at rates which recover the cost of depreciation, operation, maintenance, repair, and improvements in the airworthiness of the aircraft. Aircraft replacement costs are financed from either appropriated funds or the Forest Service Working Capital Fund, or a combination of both. This service operates three aircraft maintenance shops.

3. Supply service.--This service operates the following common services:

   Central Supply.--Grass seed is procured, stored and issued from two locations. Issuances and sales are made to National Forests, Experiment Stations, and others at prices which recover cost.

   Photo reproduction.--Six photo reproduction laboratories store, reproduce, and supply aerial photographs, aerial maps, and other photographs of National Forest lands. The photographic reproductions are sold to National Forests, Experiment Stations, and others at cost.

   Sign shop.--These include four small shops which manufacture and supply special signs for the National Forests for use in regulating traffic and as information to the public and other users of the National Forests. The signs are sold to National Forests and Experiment Stations at cost.

   Subsistence.--There are 22 facilities which prepare and serve meals at cost to Forest Service work crews working in remote areas where adequate public restaurant facilities are not available.

   Cribbing.--This facility is located on the Angeles National Forest, California to manufacture special concrete structural material used in embankments for erosion control purposes along access roads in the National Forests. This material is sold to National Forests at prices which recover costs.

   Nurseries.--This service operates 11 forest tree nurseries and cold storage facilities for storage of tree and seed stock and one seed extractory. Tree seed is procured, cleaned, bagged, and stored in refrigerated facilities. Tree and seed stock is sold to National Forests, States, and other Federal agencies at cost.

Volume of Business for the Various Major Activities of the Working Capital Fund

(In thousands of dollars)

	1974 Actual	1975 Estimate	1976 Estimate
Equipment service	29,043	31,831	33,761
Aircraft service	1,376	1,503	1,416
Supply service	2,211	2,109	2,218
Nursery service	3,932	4,059	4,345
Totals	36,562	39,502	41,740

The Working Capital Fund requires no cash appropriation. Initially, its assets were purchased by regular Forest Service appropriations and were donated to the fund. Where expansion of facilities is required that expansion is financed by Forest Service regular appropriations or Working Capital Funds when available.

Program and Financing (in thousands of dollars)

Identification code 05-96-4605-0-4-302	1974 actual	1975 estimate	1976 estimate
Program by activities:			
Operating costs, funded:			
1. Equipment service	20,823	21,616	23,695
2. Aircraft service	1,427	1,394	1,603
3. Supply service	2,152	1,981	2,518
4. Nurseries	3,677	3,926	4,555
Total operating costs	28,079	28,917	32,371
Capital outlay, funded:			
1. Equipment service	9,680	11,316	11,317
2. Aircraft service	144	9	20
3. Supply service	43	70	80
4. Nurseries	-115	45	50
Total capital outlay	9,752	11,440	11,467
Total program costs, funded	37,831	40,357	43,838
Change in selected resources (undelivered orders)	574	-453	-26
Less inventory received at no cost	-328	.....	.....
10 Total obligations	38,077	39,904	43,812
Financing:			
Receipts and reimbursements from:			
11 Federal funds:			
Revenue:			
Equipment service	-26,070	-28,541	-29,967
Aircraft service	-1,376	-1,503	-1,416
Supply service	-2,211	-2,109	-2,218
Nurseries	-3,932	-4,059	-4,345
Income provision for increased cost of equipment replacement	-2,492	-2,817	-3,156

Program and Financing (in thousands of dollars)--continued

Identification code 05-96-4605-0-4-302		19 74 actual	19 75 estimate	19 76 estimate
	Financing--continued			
	Unfilled customer orders	-103	6	31
14	Non-Federal sources: Proceeds from sale of equipment and other assets	-2,079	-2,020	-2,424
21	Unobligated balance available, start of year	-5,669	-5,855	-6,994
24	Unobligated balance available, end of year	5,855	6,994	6,677
	Budget authority	.....	.....	.....
	Relation of obligations to outlays:			
71	Obligations incurred, net	-186	-1,139	317
72	Obligated balance, start of year	7,414	7,656	7,124
74	Obligated balance, end of year	-7,656	-7,124	-7,791
90	Outlays	-428	-607	-350

Revenue and Expense (in thousands of dollars)

Identification code	19 74 actual	1975 estimate	19 76 estimate
Operating income or loss (-):			
Equipment service:			
Revenue	26,070	28,541	29,967
Expense	-27,780	-29,262	-30,428
Net operating income or loss, Equipment service	-1,710	-721	-461
Aircraft service:			
Revenue	1,376	1,503	1,416
Expense	-1,578	-1,605	-1,383
Net operating income, Aircraft service	-202	-102	33
Supply service:			
Revenue	2,211	2,109	2,218
Expense	-2,229	-2,059	-2,203
Net operating income or loss, Supply service	-18	50	15
Nurseries:			
Revenue	3,932	4,059	4,345
Expense	-4,050	-4,065	-4,302
Net operating income, Nurseries	-118	-6	43
Net operating income or loss (-), total	-2,048	-779	-370
Nonoperating income or loss (-):			
Proceeds from sale of equipment	2,079	2,020	2,424
Net book value of assets sold	-1,598	-1,547	-1,786
Net gain from sale of equipment	481	473	638
Income provision for increased cost of equipment replacements	2,492	2,817	3,156
Net nonoperating income	2,973	3,290	3,794
Net income for the year	925	2,511	3,424

Financial Condition (in thousands of dollars)

Identification code	1973 actual	1974 actual	1975 estimate	1976 estimate
Assets:				
Fund balance with Treasury	13,083	13,511	14,118	14,468
Accounts receivable ..	1,550	1,719	1,814	1,700
Deferred charges, etc.	.....	655	655	705
Inventories	7,092	7,421	7,421	7,421
Fixed assets, net	47,155	50,251	53,082	56,962
Total assets	68,880	73,557	77,090	81,256
Liabilities:				
Accounts payable and accrued liabilities .	4,229	5,153	5,163	5,761
Government equity:				
Undelivered orders ...	4,917	5,162	4,709	4,683
Unobligated balance ..	5,669	5,855	6,994	6,677
Unfilled customers orders	-182	-285	-279	-248
Invested capital and earnings	54,247	57,672	60,503	64,383
Total Government equity	64,651	68,404	71,927	75,495

Financial Condition (in thousands of dollars)--continued

Identification code	1974 actual	1975 estimate	1976 estimate
Analysis of Changes in Government Equity:			
Paid in capital:			
Opening balance	47,276	50,104	51,116
Transactions: Appropriation	2,828	1,012	144
Closing balance	50,104	51,116	51,260
Retained income:			
Opening balance	17,375	18,300	20,811
Transactions:			
Net operating income	-2,048	-779	-370
Net non-operating income	2,973	3,290	3,794
Closing balance	18,300	20,811	24,235
Total Government equity (end of year)	68,404	71,927	75,495
Non-interest bearing capital:			
Start of year	47,276	50,104	51,116
Donated assets during the year:			
Fixed assets	2,213	1,012	144
Working capital, net	615	.....	.....
End of year	50,104	51,116	51,260
Retained earnings:			
Start of year	17,375	18,300	20,811
Net income for the year	925	2,511	3,424
End of year	18,300	20,811	24,235
Total Government equity (end of year)	68,404	71,927	75,495

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-4605-0-4-302	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions	7,419	8,167	8,830
11.3 Positions other than permanent	3,375	3,727	4,020
11.5 Other personnel compensation	315	312	385
11.8 Special personal services payments	-10	2	.....
Total personnel compensation	11,099	12,208	13,235
Personnel benefits:			
12.1 Civilian	1,016	1,120	1,245
13.0 Benefits for former personnel	7	7	7
21.0 Travel and transportation of persons	201	237	250
22.0 Transportation of things	137	125	150
23.0 Rent, communications, and utilities	794	835	850
24.0 Printing and reproduction	21	25	25
25.0 Other services	4,559	2,663	3,070
26.0 Supplies and materials	10,533	10,000	11,000
31.0 Equipment	9,714	12,700	14,000
32.0 Lands and structures	27	20	25
41.0 Grants, subsidies, and contributions	3	3	3
42.0 Insurance claims and indemnities	3	1	2
Subtotal	38,114	39,944	43,862
95.0 Quarters and subsistence charges	-37	-40	-50
99.0 Total obligations	38,077	39,904	43,812

Personnel Summary

Identification code 05-96-4605-0-4-302	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions ..	735	736	785
Full-time equivalent of other positions	405	406	437
Average paid employment	1,009	1,016	1,096
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions .	$11,174	$11,794	$11,794

Program and Financing (in thousands of dollars)

Identification code 05-96-4603-0-4-402	7/1-9/30/76
Program by activities:	
Operating costs, funded:	
1. Equipment service	7,109
2. Aircraft service	480
3. Supply service	630
4. Nurseries	1,139
Total operating costs	9,358
Capital outlay, funded:	
1. Equipment service	2,829
2. Aircraft service	5
3. Supply service	20
4. Nurseries	13
Total capital outlay	2,867
Total program costs, funded	12,225
10 Total obligations	12,225
Financing:	
Receipts and reimbursements from:	
11 Federal funds:	
Revenue:	
Equipment service	-9,332
Aircraft service	-485
Supply service	-650
Nurseries	-1,152
Income provision for increased cost of equipment replacement	-789
14 Non-Federal sources:	
Proceeds from sale of equipment and other assets	-606
21 Unobligated balance available, July 1	-6,677
24 Unobligated balance available, September 30	7,466
Budget authority	.....
Relation of obligations to outlays:	
71 Obligations incurred, net	-789
72 Obligated balance, July 1	7,791
74 Obligated balance, September 30	-7,302
90 Outlays	-300

COOPERATIVE WORK, FOREST SERVICE (TRUST FUND)

Contributions are received from cooperators, including counties, States, timber sale operators, individuals, and associations, and are expended by the Forest Service in accordance with the terms of the applicable cooperative agreements. The work consists of protection and improvement of the National Forests, work performed for National Forest users, and forest investigations and protection, reforestation, and administration of private forest lands.

The major programs conducted under this account are described below in terms of the projects reflected in the statement at the end of this section.

(1) Construction and Maintenance of Roads and Trails, and

(2) Construction and Maintenance of Other Improvements.

Under the Acts of June 30, 1914 (16 USC 498) and March 3, 1925, April 24, 1950 (16 USC 572) and October 13, 1964 (16 USC 537) deposits for cooperative work are accepted from State and local government agencies, associations, Federal timber purchasers, users of roads, and others for the construction and maintenance of roads, trails, and other improvements and for performing work which is the National Forest users' responsibility, this method of performance of the work being of mutual benefit or of benefit to the public at large. Cooperative deposits received for wildlife habitat improvement for States from their hunting and fishing fees are included in this activity.

(3) Protection of National Forest and Adjacent Non-Federal Lands. The Act of June 30, 1914 (16 USC 498) authorizes the acceptance of contributions for the protection of the National Forests and the Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572), authorizes the acceptance of deposits for the protection of non-Federal lands in or near the National Forests. The major portion of the obligations is for the protection of private lands from fire. This arrangement helps both parties since there are millions of acres of non-Federal forest land intermingled with Federal ownership on the National Forests. The lands in non-Federal ownership are usually in small tracts. It would be uneconomical for the owner to set up a fire control organization for the protection of his land. The advantage to the Government is that in many cases it would be necessary to suppress the fires on the non-Federal land without reimbursement in order to protect the adjoining Federal land.

(4) Sale Area Betterment (including reforestation). Section 3 of the Act of June 9, 1930 (16 USC 576b) provides for deposits of funds by timber sale purchasers to cover the cost of reforestation and special cultural measures to improve the future stand of timber on the areas cutover by the purchaser. Accomplishments under this program are reported under the Forest land management subappropriation along with accomplishments for reforestation and stand improvement for that subappropriation.

(5) Scaling. Under provisions of the Act of April 24, 1950 (16 USC 572) and of Section 210 of the Act of September 21, 1944 (16 USC 572a) acceptance of deposits from timber purchasers for cooperative scaling service is authorized. Such arrangements are established only when requested by the operator and when the operator pays the extra cost of such services, either in advance or through reimbursement under appropriate payment guarantees.

(6) Research Investigations. The Acts of June 30, 1914 (16 USC 498) and May 22, 1928 (16 USC 581i-1) authorize the acceptance of deposits for forestry research. Deposits are received from State and other public agencies, and from industrial, association, and other private agencies to finance research projects of mutual interest and benefit to both parties. The deposits may be made either in a single sum or on a continuing basis, and may either partially or wholly cover the cost of the research. The cooperative research projects may involve any aspect of forestry and vary widely as to scope and duration. A very common

example of such cooperation is for a State to make a deposit to the Cooperative work fund in order to intensify or to speed up completion of a comprehensive survey of the forest resources of the State. Other examples are State contributions toward forest fire research. The results of such cooperative investigations are made available to the general public as well as to the depositor.

(7) Administration of Non-Federal Lands. The Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572) authorizes the acceptance of deposits for the administration of non-Federal lands. These deposits are made by non-Federal owners having land intermingled with or adjacent to National Forests who wish these lands managed in accordance with good forest management practices. Their holdings are usually too small to warrant the employment of professional foresters to administer such tracts. The advantages to the Government include the avoidance of possible high fire hazard areas resulting from improper cutting practices, the elimination of the necessity of precisely marking the boundaries of the private land, and additional private forest land handled under proper forest practices.

(8) Reforestation (private lands). The Act of March 3, 1925, as amended by Section 5, Act of April 24, 1950 (16 USC 572) authorizes the acceptance of deposits for reforestation of non-Federal lands situated within or near a National Forest. This work is limited to areas of non-Federal land within a planting project on the National Forests or to areas in which certain civic and other public-spirited organizations have taken an interest.

(9) Statement on Utilization of Funds. Following is a statement of funds received and obligated and balances available by major activities:

COOPERATIVE WORK, FOREST SERVICE--Trust Fund

Project	Balance Available June 30, 1973	Actual Fiscal Year 1974			Estimate Fiscal Year 1975			Estimate Fiscal Year 1976		
		Funds Received	Obligations	Balance	Funds Received	Obligations	Balance	Funds Received	Obligations	Balance
1. Construction and maintenance of roads and trails	$9,231,963	$10,447,960	$9,499,190	$10,180,733	$12,360,000	$10,425,000	$12,115,733	$12,515,000	$14,100,000	$10,530,733
2. Construction and maintenance of other improvements	1,020,706	1,248,485	1,172,260	1,096,931	1,000,000	900,000	1,196,931	1,300,000	2,061,000	435,931
3. Protection on National Forests and adjacent private land:										
(a) Fire	690,236	2,454,008	2,467,578	676,666	2,500,000	2,650,000	526,666	2,500,000	2,890,000	136,666
(b) Other	2,986,601	3,050,195	2,630,374	3,406,422	2,800,000	2,650,000	3,556,422	2,800,000	3,615,000	2,741,422
4. Sale area betterment on National Forest lands (including reforestation)	66,911,889	46,699,366	37,159,325	76,451,930	47,740,000	44,025,000	80,166,930	51,300,000	63,244,000	68,422,930
5. Scaling of timber	286,299	1,453,307	1,473,648	265,958	1,400,000	1,455,000	210,958	1,500,000	1,550,000	160,958
6. Research investigations	332,289	1,183,767	783,767	732,289	700,000	742,000	690,289	700,000	1,035,000	355,289
7. Administration of private lands	19,576	75,223	71,644	23,155	65,000	70,000	18,155	75,000	80,000	13,155
8. Reforestation (private lands)	110,361	4,383	58,737	56,007	35,000	38,000	53,007	10,000	62,000	1,007
Total	81,589,920	66,616,694	55,316,523	92,890,091	68,600,000	62,955,000	98,535,091	72,900,000	88,637,000	82,798,091

NOTE: Balances carried forward are due primarily to necessity of deferring work for which funds are deposited until the most practicable time for accomplishment. For instance, funds for sale area betterment are received in advance of timber cutting, but work cannot be started until cutting operations are completed. The time lag sometimes extends for several years, depending on the amount of preparatory work required in the sale area and weather conditions.

Above obligations for 1974 include refunds to cooperators in the amount of $297,027.

	1974	1975	1976	Change
Permanent full-time positions	1,380	1,470	1,643	+173

Program and Financing (in thousands of dollars)

Identification code 05-96-8028-0-7-302	1974 actual	1975 estimate	1976 estimate
Program by activities:			
1. Construction and maintenance of roads and trails	8,376	9,845	13,650
2. Construction and maintenance of other improvements ...	1,050	910	1,361
3. Protection of National Forest and adjacent private land	5,044	5,300	5,505
4. Sale area betterment and scaling	37,247	45,050	61,944
5. Research investigations ..	764	742	1,035
6. Administration	97	70	80
7. Reforestation	59	38	62
Total program costs, funded 1/	52,637	61,955	83,637
Change in selected resources (undelivered orders)	2,680	1,000	5,000
10 Total obligations	55,317	62,955	88,637
Financing:			
21 Unobligated balance available, start of year	-81,590	-92,890	-98,535
24 Unobligated balance available, end of year	92,890	98,535	82,798
60 Budget authority (appropriation) (permanent, indefinite) ...	66,617	68,600	72,900
Relation of obligations to outlays:			
71 Obligations incurred, net	55,317	62,955	88,637
72 Obligated balance, start of year	6,696	2,440	4,085
74 Obligated balance, end of year	-2,440	-4,085	-8,165
90 Outlays	59,573	61,310	84,557

1/ Includes capital outlay as follows: 1974, $1,897 thousand; 1975, $2,000 thousand; 1976, $3,000 thousand.

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 05-96-8028-0-7-302	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions	16,585	19,550	23,565
11.3 Positions other than permanent	11,524	13,328	16,480
11.5 Other personnel compensation	949	990	1,120
11.8 Special personal services payments	20	20	50
Total personnel compensation	29,078	33,888	41,215
Personnel benefits:			
12.1 Civilian	2,569	2,934	3,670
13.0 Benefits for former personnel	13	15	15
21.0 Travel and transportation of persons	451	451	700
22.0 Transportation of things	1,966	2,100	3,200
23.0 Rent, communications, and utilities	1,112	1,650	2,550
24.0 Printing and reproduction	34	50	75
25.0 Other services	9,171	9,027	16,407
26.0 Supplies and materials	5,270	5,550	9,600
31.0 Equipment	922	1,050	1,600
32.0 Lands and structures	4,623	6,300	9,700
41.0 Grants, subsidies, and contributions	3	.....	.....
42.0 Insurance claims and indemnities	7	5	5
44.0 Refunds	295	150	150
Subtotal	55,514	63,170	88,887
95.0 Quarters and subsistence charges	-197	-215	-250
99.0 Total obligations	55,317	62,955	88,637

Personnel Summary

Identification code 05-96-8028-0-7-302	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions ..	1,380	1.470	1,643
Full-time equivalent of other positions	1,484	1,616	1,829
Average paid employment	2,704	2,969	3,355
Average GS grade	8.61	8.67	8.66
Average GS salary	$14,322	$15,147	$15,174
Average salary of ungraded positions .	$11,174	$11,794	$11,794

Analysis by Activities
Budget Authority -- in thousands

Activity	:FY 1976 :Estimate:	:7/1-9/30/76 Estimate
1. Construction and maintenance of roads and trails	$12,515	$2,800
2. Construction and maintenance of other improvements	1,300	300
3. Protection on National Forests and adjacent private land:		
(a) Fire	2,500	580
(b) Other	2,800	650
4. Sale area betterment on National Forest lands (including reforestation)	51,500	11,300
5. Scaling of timber	1,500	200
6. Research investigations	700	150
7. Administration of private lands	75	20
8. Reforestation (private lands)	10	- -
Total	72,900	16,000

Program and Financing (in thousands of dollars)

Identification code		
05-96-8028-0-7-302		
		7/1-9/30/76
	Program by activities:	
	1. Construction and maintenance of roads and trails	2,800
	2. Construction and maintenance of other improvements ...	300
	3. Protection of National Forest and adjacent private land	1,230
	4. Sale area betterment and scaling	11,500
	5. Research investigations ..	150
	6. Administration	20
	Total program costs, funded 1/	16,000
10	Total obligations	16,000
	Financing:	
21	Unobligated balance available, July 1	-82,798
24	Unobligated balance available, September 30	82,798
60	Budget authority (appropriation) (permanent, indefinite) ...	16,000
	Relation of obligations to outlays:	
71	Obligations incurred, net ...	16,000
72	Obligated balance, July 1 ...	8,165
74	Obligated balance, September 30	-3,625
90	Outlays	20,540

1/ Includes capital outlay as follows: $500 thousand.

Justification for Transition Period July 1-September 30, 1976

It is anticipated that approximately $16 million will be deposited in this account during the transition period which is about 22 percent of anticipated receipts in fiscal year 1976.

These funds are derived from contributions from cooperators, including counties, States, timber sale operators, individuals, and associations, and are expended by the Forest Service in accordance with the terms of the applicable cooperative agreements. The work consists of protection and improvement of the National Forests, work performed for National Forest users, and forest investigations and protection, reforestation, and administration of private forest lands.

The relationship of the deposits for the period July 1, through September 30, 1973, to the total fiscal year 1974 deposits was used as a basis for determining the budget authority for the transition period.

The actual collections made during the transition period will become available for obligation as soon as they are deposited into this account.

U. S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

GENERAL STATEMENT FOR OPERATING EXPENSES
FOSSIL FUEL AND RELATED PROGRAMS
(Dollars in thousands, except whole dollars in narrative material)

Estimate of Appropriation

The budget estimates for Direct Program Operating Expenses for FY 1976 provide for total obligations of $398,600,000 to be funded by a new appropriation.

Estimates of Costs and Obligations

The budget estimates for this appropriation are stated in terms of accrued costs for each of the direct operating programs. "Accrued costs" denotes the actual application of labor, materials and services to the program during the year, but excludes depreciation of facilities used in the operations. The ERDA does, however, maintain accounts for depreciation for the purpose of determining total costs of production and for use in establishing prices for services rendered or products sold to others.

The costs of operation are reconciled to the total obligations to be incurred during the year by estimating the buildup or decrease during the year of the resources that are to be applied to future years' operations. These estimates are included in the section entitled "Increase or Decrease in Selected Resources" and include goods and services on order.

This section also includes a statement of the Reimbursable Program. It should be noted that the costs and obligations related to the Reimbursable Program are not financed by ERDA's appropriated funds, but solely through reimbursable agreements with other Federal agencies.

The following tables summarize the accrued costs and total obligations for Direct and Reimbursable Programs for fiscal years 1974, 1975, 1976 and the Transition Period.

OPERATING EXPENSES

FOSSIL FUEL AND RELATED PROGRAMS

Program and Financing (In Thousands of Dollars)

Identification Code: 19-00-0100-0-1-999	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Program by activities:				
Direct program:				
1. Fossil energy development:				
(a) Coal	$ 62,613	$174,199	$279,473	$ 46,300
(b) Petroleum and natural gas	7,877	17,267	23,647	7,230
(c) Oil shale	2,780	3,454	8,147	2,300
2. Solar, geothermal and advanced energy systems development				
(c) Advanced energy systems research	4,160	12,284	23,173	4,030
3. Conservation research and development:				
(b) Advanced automotive power systems	1,500	4,490	8,240	2,060
(d) End use energy conservation research and development	-	-	3,000	1,000
Total direct program costs	$ 78,930	$211,694	$345,680	$ 62,920
Reimbursable program:				
1. Fossil energy research and development	1,562	1,600	1,660	415
Total program costs, funded	80,492	213,294	347,340	63,335
Change in selected resources (undelivered orders)	27,683	174,018	52,920	39,650
10. Total obligations	108,175	387,312	400,260	102,985

OPERATING EXPENSES

(Continued)

FOSSIL FUEL AND RELATED PROGRAMS

Program and Financing (In Thousands of Dollars)

Identification Code: 19-00-0100-0-1-999	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Financing:				
Receipts and reimbursements from:				
11. Federal funds	$ -2,415	$ -575	$ -1,660	$ -415
21. Unobligated balance available, start of year 1/	-2,064	-55,801	-	-
24. Unobligated balance available, end of year 2/	55,801	-	-	-
25. Unobligated balance lapsing	34	-	-	-
Budget authority	159,531	330,936	398,600	102,570
Budget authority:				
40. Appropriation	159,531	330,755	398,600	102,570
44.20 Proposed supplemental for civilian pay raises	-	181	-	-
Relation of obligations to outlays:				
71. Obligations incurred, net	105,760	386,737	398,600	102,570
72. Obligated balance, start of year	35,278	62,458	237,501	237,501
74. Obligated balance, end of year (-)	-62,458	-237,501	-290,421	-277,151
77.49 Adjustment in expired accounts	-3	-	-	-
90. Outlays, excluding pay raise supplemental	78,577	211,513	345,680	62,920
91.20 Outlays from civilian pay raise supplemental	-	181	-	-

1/ Includes $174,000 in FY 1974 and $1,025,000 in FY 1975 for reimbursable work.
2/ Includes $1,025,000 in FY 1974 for reimbursable work.

PROPOSED APPROPRIATION LANGUAGE CHANGES - OPERATING EXPENSES

(Dollars in thousands, except whole dollars in narrative material)

The proposed changes in language are indicated as follows: language enclosed in brackets [ ] indicates proposed deletions, and underscoring _____ indicates proposed insertion of new language.

OPERATING EXPENSES

For necessary operating expenses of the Administration in carrying out the purposes of the Energy Reorganization Act of 1974; hire, maintenance, and operation of aircraft; publication and dissemination of atomic and other energy information; purchase, repair and cleaning of uniforms; reimbursement of the General Services Administration for security guard services; hire of passenger motor vehicles; $398,600,000 and any moneys (except sums received from the Strategic and Critical Materials Stockpiling Act, as amended and fees received for tests or investigations under the Act of May 16, 1910, as amended (50 U.S.C. 98h; 30 U.S.C. 7)) received by the Energy Research and Development Administration notwithstanding the provisions of section 3617 of the Revised Statutes (31 U.S.C. 484), to remain available until expended: Provided, That from this appropriation transfers of sums may be made to other agencies of the Government for the performance of the work for which this appropriation is made, and in such cases the sums so transferred may be merged with the appropriation to which transferred: Provided further, that the amount appropriated in any other appropriation act for "Operating expenses" for the Energy Research and Development Administration for the fiscal year ending June 30, 1976, shall be merged, without limitation, with this appropriation.

For "Operating expenses" for the period July 1, 1976, through September 30, 1976, $102,570,000, to remain available until expended: Provided, that the amount appropriated in any other appropriation act for "Operating expenses" for the Energy Research and Development Administration for the period July 1, 1976, through September 30, 1976, shall be merged, without limitation, with this appropriation.

[DEPARTMENT OF THE INTERIOR]

[Office of Coal Research]

[Salaries and Expenses]

[For necessary expenses to encourage and stimulate the production and conservation of coal in the United States through research and development, as authorized by law (30 U.S.C. 661-668), $261,278,000, to remain available until expended, of which not to exceed $6,541,000 shall be available for administration and supervision.] (Special Energy Research and Development Appropriation Act, 1975.)

PLANT AND CAPITAL EQUIPMENT
FOSSIL FUEL AND RELATED PROGRAMS

Program and Financing (In thousands of dollars)

Identification code 19-00-0103-0-1-999	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Program by activities:				
Capital outlay (facilities and equipment) for:				
1. Fossil energy development				
(a) Coal	$ -	$ 13,150	$ 20,000	$ 8,000
(b) Petroleum and natural gas	134	35	100	100
(c) Oil shale	25	75	325	100
10. Total obligations 1/	159	13,260	20,425	8,200
Financing:				
21. Unobligated balance available, start of year(-)	-	-	-	-
24. Unobligated balance available, end of year	-	-	-	-
40. Budget authority (appropriation).	159	13,260	20,425	8,200
Relation of obligations to outlays:				
71. Obligations incurred, net	159	13,260	20,425	8,200
72. Obligated balance, start of year.	651	139	10,201	10,201
74. Obligated balance, end of year(-)	-139	-10,201	-21,287	-14,751
90. Outlays	671	3,198	9,339	3,650

1/ Includes obligations for equipment not related to construction, as follows: FY 1974, $159,000; FY 1975, $260,000; FY 1976, $425,000; and $200,000 for the period July 1 - Sept. 30, 1976.

PROPOSED APPROPRIATION LANGUAGE CHANGES - PLANT AND CAPITAL EQUIPMENT

(Dollars in thousands, except whole dollars in narrative material)

The proposed changes in language are indicated as follows: language enclosed in brackets [ ] indicates proposed deletions, and underscoring _____ indicates proposed insertion of new language.

PLANT AND CAPITAL EQUIPMENT

For expenses of the Administration, as authorized by law, in connection with the purchase and construction of plant and the acquisition of capital equipment and other expenses incidental thereto necessary in carrying out the purposes of the Energy Reorganization Act of 1974, including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion; $20,425,000 to remain available until expended: Provided, That the amount appropriated in any other appropriation act for "Plant and capital equipment" for the Energy Research and Development Administration for the fiscal year ending June 30, 1976, shall be merged, without limitation, with this appropriation.

For "Plant and capital equipment" for the period July 1, 1976, through September 30, 1976, $8,200,000 to remain available until expended: Provided, That the amount appropriated in any other appropriation act for "Plant and capital equipment" for the Energy Research and Development Administration for the period July 1, 1976, through September 30, 1976, shall be merged, without limitation, with this appropriation.

PROPOSED APPROPRIATION LANGUAGE CHANGES - GENERAL PROVISIONS

(Dollars in thousands, except whole dollars in narrative material)

The proposed changes in language are indicated as follows: language enclosed in brackets [ ] indicates proposed deletions, and underscoring _____ indicates proposed insertion of new language.

GENERAL PROVISIONS

SEC. 101. Not to exceed 5 per centum of appropriations made available for the current fiscal year for "Operating expenses" and "Plant and capital equipment" may be transferred between such appropriation, but neither such appropriation, except as otherwise provided therein, shall be increased by more than 5 per centum by any such transfers, and any such transfers shall be reported promptly to the Appropriations Committees of the House and Senate.

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FY 1976 Budget Estimates
(Dollars in thousands except whole dollars in narrative material)

SUMMARY TABLE

Fossil Energy Development

Operating Expenses:

	Actual FY 1974		Estimate FY 1975		Estimate FY 1976		Estimate Transition Period	
	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.
A. Coal								
1. Liquefaction	$ 19,764	$ 46,291	$ 54,632	$ 94,745	$ 96,897	$ 97,562	$ 16,000	$ 28,750
2. High-Btu Gasification	29,415	33,333	57,841	59,805	42,838	63,364	8,700	10,500
3. Low-Btu Gasification	8,442	22,121	22,308	56,480	51,671	45,389	6,500	11,400
4. Advanced Power Systems	20	1,540	3,957	4,097	5,261	6,601	1,300	2,500
5. Direct Combustion	3,509	15,507	20,681	35,887	32,645	38,096	5,100	14,900
6. Advanced Research and Supporting Technology	1,463	9,946	14,780	23,325	32,061	35,393	4,600	8,850
7. Demonstration Plants	0	0	0	0	18,100	37,000	4,100	9,000
Total Coal Program	$ 62,613	$128,738	$174,199	$274,339	$279,473	$323,405	$ 46,300	$ 85,900
B. Petroleum and Natural Gas								
1. Gas and Oil Extraction	$ 6,695	$ 7,263	$ 16,242	$ 26,369	$ 22,065	$ 24,929	$ 6,730	$ 6,430
2. Gas and Oil Utilization	1,182	1,445	1,025	1,789	1,582	1,797	500	450
Total Petroleum and Natural Gas Program	$ 7,877	$ 8,708	$ 17,267	$ 28,158	$ 23,647	$ 26,726	$ 7,230	$ 6,880
C. Oil Shale								
1. In-Situ Processing	$ 2,026	$ 2,308	$ 2,903	$ 3,762	$ 7,034	$ 7,720	$ 2,000	$ 1,950
2. Composition and Characterization	754	922	551	962	1,113	1,265	300	300
Total Oil Shale Program	$ 2,780	$ 3,230	$ 3,454	$ 4,724	$ 8,147	$ 8,985	$ 2,300	$ 2,250
Total Operating Expenses	$ 73,270	$140,676	$194,920	$307,221	$311,267	$359,116	$ 55,830	$ 95,030

(Dollars in thousands, except whole dollars in narrative material)

SUMMARY TABLE - continued

Fossil Energy Development - continued

Plant and Capital Equipment:

	Actual FY 1974 Obligations/ Budget Auth.	Estimate FY 1975 Obligations/ Budget Auth.	Estimate FY 1976 Obligations/ Budget Auth.	Estimate Transition Period Obligations/ Budget Auth.
A. Coal				
Capital Equipment				
Low-Btu Gasification	$ 0	$ 150	$ 0	$ 0
Construction Projects - Total	0	13,000	20,000	8,000
Total Coal Program	0	13,150	20,000	8,000
B. Petroleum and Natural Gas				
Capital Equipment				
Gas and Oil Extraction	134	35	100	100
Construction Projects - Total	0	0	0	0
Total Petroleum and Natural Gas Program	134	35	100	100
C. Oil Shale				
Capital Equipment				
In-Situ Processing	25	75	325	100
Construction Projects - Total	0	0	0	0
Total Oil Shale Program	25	75	325	100
Fossil Energy Development Totals				
Operating Expenses	140,676	307,221	359,116	95,030
Capital Equipment	159	260	425	200
Construction Projects	0	13,000	20,000	8,000

Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

COAL PROGRAM: OPERATING COSTS

ANALYSIS BY SUBPROGAM

This table and the following justification for the operating expenses appropriation will be on a cost budget basis.

Page No.	Subprogram	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
FED/C-6	1. Liquefaction	$ 19,764	$ 54,632	$ 96,897	+ $ 42,265
FED/C-13	2. High-Btu Gasification	29,415	57,841	42,838	- 15,003
FED/C-19	3. Low-Btu Gasification	8,442	22,308	51,671	+ 29,363
FED/C-23	4. Advanced Power Systems	20	3,957	5,261	+ 1,304
FED/C-26	5. Direct Combustion	3,509	20,681	32,645	+ 11,964
FED/C-30	6. Advanced Research and Supporting Technology	1,463	14,780	32,061	+ 17,281
FED/C-36	7. Demonstration Plants	0	0	18,100	+ 18,100
	Total Coal Program	$ 62,613	$174,199	$279,473	+ $105,274

COAL PROGRAM - continued

HIGHLIGHT EXPLANATION OF CHANGES
BY SUBPROGRAM
FY 1976

(Dollars in thousands, except whole dollars in narrative material)

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
A. Coal				
1. Liquefaction + $42,265	0	$ 96,897	123	This increase is primarily to support construction of direct hydrogenation pilot plants, operation of the solvent extraction pilot plant, and to continue necessary support research and development.
2. High-Btu Gasification - 15,003	0	42,838	99	Decrease due to higher costs in FY 1975 to support the construction phase of several pilot plants.
3. Low-Btu Gasification + 29,363	+ 3	51,671	55	This increase reflects sizeable payments for obligations recorded in previous years. Actual budget authority will decrease by $11,091,000 from FY 1975 levels primarily in the support studies and engineering evaluations area.
4. Advanced Power Systems + 1,304	0	5,261	21	Increase in costs primarily for support of open cycle turbine cooling and blade research, common engineering technology, and initiation of construction of an experimental gas turbine combustor.
5. Direct Combustion + 11,964	+ 3	32,645	68	Additional costs for conceptual design of 200 MW atmospheric fluidized-bed boiler, Project MIUS, support studies and development of required boilers or their fabrication.

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
6. Advanced Research and Supporting Technology				
+ $17,281	+ 2	$ 32,061	55	Additional costs will permit initiation of studies on advanced processes, materials engineering studies on gasification processes, basic coal science and engineering, and increased systems studies.
7. Demonstration Plants				
+ 18,100	0	18,100	0	This subprogram will be initiated in FY 1976. Cost increase will be used to continue conceptual design of Clean Boiler Fuel plant, initial research, investigations and conceptual design of a High-Btu Pipeline Gas and Low-Btu Fuel Gas demonstration plants, and engineering support for these projects.
+ $105,274	+ 8	$279,473	421	

Program/Subprogram	Requested Increase/Decrease Amount	Positions	Total Program Amount	Positions
Coal Program				
1. Liquefaction	+ $ 42,265	0	$ 96,897	123
2. High-Btu Gasification	- 15,003	0	42,838	99
3. Low-Btu Gasification	+ 29,363	+ 3	51,671	55
4. Advanced Power Systems	+ 1,304	0	5,261	21
5. Direct Combustion	+ 11,964	+ 3	32,645	68
6. Advanced Research and Supporting Technology	+ 17,281	+ 2	32,061	55
7. Demonstration Plants	+ 18,100	0	18,100	0
Total Coal Program	+ $105,274	+ 8	$279,473	421

The principal objectives of the Coal Program are to accelerate the development of the technology for converting coal to environmentally acceptable liquid and gaseous fuels, to stimulate improved methods for the direct combustion of coal, and to develop advanced power conversion systems utilizing higher-efficiency technologies for generating electricity from coal.

Research and development will continue on coal liquefaction concepts to advance the technology needed for converting coal to low-sulfur, low-ash fuel oil for power generation and for upgrading to transportation fuels. Specific activities are related to the four methods of converting coal to liquids, namely direct catalytic hydrogenation, solvent extraction, pyrolysis and indirect liquefaction.

The coal gasification program will include research and development efforts directed toward high-Btu and low-Btu gasification processes, both above ground and in-situ. The low-Btu gasification program will produce a gas suitable for power generation and combined gas-steam turbine power cycles, thus further employing coal as a utility fuel in an economic and environmentally acceptable manner. The high-Btu coal gasification activities, a cooperative and jointly funded effort of industry-Government, will continue technology development of processes aimed at improving the nation's natural gas resources by producing substitute pipeline quality gas at a reasonable price.

Efforts will continue on the direct combustion program to develop boiler systems capable of burning high sulfur coals of varying quality in an environmentally acceptable manner, achieve higher combustion efficiency, minimize harmful emissions, and foster adoption of improved processes by powerplants. Research and development will also continue on advanced power conversion systems to establish the technology base for more efficient generation of electricity from coal.

Advanced research and supporting technology will provide support primarily to the liquefaction, gasification, direct combustion and advanced power systems programs in FY 1976. The principal areas of concern involve advanced process research, supporting and new technology, basic coal science, and systems studies.

Pilot plant efforts on a number of processes have proceeded to a point where it is planned to build a Clean Boiler Fuel demonstration plant to convert typically high-sulfur Eastern bituminous coals to an environmentally acceptable lower-sulfur boiler fuel. The FY 1976 program includes funds for the conceptual design phase for the Clean Boiler Fuel demonstration plant, initial effort in the design of the High-Btu Pipeline Gas and Low-Btu Fuel Gas demonstration plants, and technical support for all three projects.

In addition to the direct Federal funds the Administration anticipates significant cost sharing in many of the program areas. The present standard for cooperative joint funding anticipates one-third private, two-thirds Federal, for pilot plants and 50-50 sharing for demonstration plants.

The following table, presesnted on a budget authority basis, displays the estimated cost sharing anticipated in FY 1976 for the Coal Program.

Subprogram	Estimate for FY 1976 Budget Authority: Federal Funds	Estimate for FY 1976 Budget Authority: Cost-Sharing
1. Liquefaction	$ 97,562	$ 28,700
2. High-Btu Gasification	63,364	20,000
3. Low-Btu Gasification	45,389	17,750
4. Advanced Power Systems	6,601	0
5. Direct Combustion	38,096	4,400
6. Advanced Research and Supporting Technology	35,393	0
7. Demonstration Plants	37,000	0
Total Coal Program	$323,405	$ 70,850

(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

1. Liquefaction + $42,265 No Positions

Objectives:

The primary objective of the Liquefaction subprogram is to provide technology which is economically feasible and environmentally satisfactory to convert coal to a clean liquid for electric power generation, and industrial and residential heating. Simultaneously, technology will also be developed for converting this synthetic oil into transportation fuels as well as chemicals.

The short term objective of this subprogram is to develop to industrial scale the conversion of coal into low-sulfur, low-ash fuel oil suitable for electric power generators. The longer term objective is to develop to industrial scale synthetic fuels into higher grade products such as gasoline, methanol, diesel fuel and heating oil.

Accomplishments:

In FY 1975 research and development efforts in direct hydrogenation processes have been considerably accelerated with the program moving toward construction of pilot plants. The design of the ebullated bed (H-Coal) process pilot plant that was started in FY 1975 will be completed early in FY 1976. Construction of the plant which will be located in Cattletsburg, Kentucky, will begin late in the budget year. Procurement of long-lead-time items of equipment initiated in FY 1975 will be continued through FY 1976. The design of a fixed bed hydrogenation process pilot plant was initiated in FY 1975, based on the Synthoil process being developed with bench scale units and which has already proven long-term reliable operability. Concurrent with the design phase of the 600 tons-per-day pilot plant, a 10 tons-per-day PDU will be constructed in Bruceton, Pennnsylvania, for the Synthoil process to gather additional data to support the pilot plant effort.

The operation of the 50 tons-per-day solvent refined coal (SRC) pilot plant in Tacoma, Washington, which was completed late in FY 1974, will be continued with attendant evaluation of operational data. Additionally, engineering effort is being directed toward design modification of the pilot plant to recycle unconverted coal, thereby improving the quality (more fluid, lower sulfur) of the solvent refined coal product. The improved mode will be used for operation in FY 1976.

Need for Increase:

The increase of $42,265,000, on a cost basis, for the liquefaction subprogram is primarily directed at the direct hydrogenation and solvent extraction pilot plant projects that are underway, as well as to continue other projects including a number of process development units and supporting research and development. This significant increase includes costs associated with not only the requested FY 1976 budget authority of $97,562,000, up $2,817,000 over FY 1975, but also costs resulting from obligations recorded in previous years.

Of the various approaches for converting coal into an improved nonpolluting energy source, liquefaction appears to be one of the most favored in terms of economics, confidence in reliable commercial operability, and the least time to achieve commercial implementation. Economic advantages derive from the fact that less chemical changes are required to convert solid coal into a liquid

than to gases, and the energy-conversion efficiency is higher. Commercial liquefaction processes would utilize well developed materials and equipment components already being used in existing commercial petroleum refineries--hence the assumption of operational reliability. In addition, it follows that liquefaction plants could be put into operation more expeditiously than plants employing alternative processes requiring relatively severe conditions and unusual materials, since the essential equipment to be employed in liquefaction processes is already developed as off-the-shelf items.

Specific projects in the coal liquefaction program include research and development in each of the four methods of converting coal to liquids, namely: (a) direct hydrogenation, (b) solvent extraction, (c) pyrolysis, and (d) indirect liquefaction. The products produced by each process differ and because data is insufficient to make sound economic comparisons at this time, a parallel approach is desirable. Selected process options are being investigated through bench and pilot stage in order to build a broad technological base. From this base, an efficient process or combination of processes can be developed. A number of coal liquefaction pilot plants are already underway or are proposed. These pilot plants include two using direct catalytic hydrogenation, one based on solvent extraction, and two based on pyrolysis methods. As described under the Demonstration Plant program, one coal-to-liquid plant is proposed in the FY 1976 budget. Only after demonstration plant operation of each process can a valid technical and economical choice be made for best processes for commercialization.

Additionally, a number of process development units are proposed, representing the first scaleup of promising laboratory tests, prior to pilot plants. The program also includes support research and development, which provides the backup research for current process development and for the development of novel liquefaction processes as second and third generation improvements in the technology. Support engineering work reveals areas needing research and development and guides the development to the most economic and reliable processes.

a. Direct Hydrogenation. The following direct hydrogenation processes differ in the reactor design and the type of catalyst used. These processes are similar in catalytically adding hydrogen to coal to liquefy it to fuel oil and to remove the sulfur as gaseous hydrogen sulfide, which is then convertible to sulfur for sale or storage. The FY 1976 request includes an increase of $10,092,000 in budget authority, primarily associated with the procurement of long-lead-time procurement for the ebullated-bed pilot plant, the Synthoil process and the related design phase of the fixed-bed hydrogenation pilot plant. Costs associated primarily with these projects will increase by $21,920,000 over FY 1975 reflecting the extended actual payout of obligations recorded in prior years as well as for new obligations in FY 1976. Specific objectives of this program are to determine operational reliability and economics of the several processes.

   (1) Ebullated-Bed Pilot Plant. This process utilizes an ebullated bed of catalyst to hydroliquefy the coal to clean fuel oil and/or synthetic crude oil at choice. Based on the results of experimental operations of a 2.5 tons-per-day (TPD) process development unit (PDU) and a proposed construction design in FY 1975, procurement of equipment and long-lead-time items for construction of a pilot plant, representing a scaleup to 600 tons-per-day operations, will proceed.

(2) Fixed-Bed Hydrogenation. In the fixed-bed hydrogenation, or Synthoil, process for converting coal into nonpolluting fuel oil that has very low sulfur and ash content, pulverized coal is slurried with some of its own product oil and then pumped into the reactor with hydrogen at high velocity to create turbulence. The reactor is filled with immobilized catalyst pellets. The combined effect of the hydrogen, turbulence, and catalyst is to liquefy and desulfurize the coal at high yields and high throughput. Sulfur is removed as hydrogen sulfide which is easily converted into elemental sulfur for immediate use, storage, or disposal. The unused hydrogen is recycled for reuse in the process. The raw oil is centrifuged to remove ash, providing an immediately useable low-sulfur, low-ash fuel oil. The process works successfully on all kinds of coal and five different grades have been processed.

Construction of a larger process development unit (PDU) which will treat approximately 10 tons of coal per day will begin in FY 1976. Shakedown operations will begin either in late FY 1977 or early FY 1978. Operation of the PDU will involve industrial participation. Operation of the laboratory Synthoil reactor will be continued to provide additional data for scaleup.

Based on the technology of the Synthoil process being developed with the process development units for which long term reliable operability has been proven, design of a 600 TPD pilot plant will be started in FY 1975, followed by construction and operation in fiscal years 1977 and beyond.

(3) Zinc Chloride Catalyst PDU. This project is redesigned to produce fuel oil rather than gasoline from coal. Basic tests show that through the use of zinc chloride as a hydrocracking catalyst the objectives can be achieved. This process has been satisfactorily demonstrated at a smaller scale. Major problems to be resolved are the recovery of the catalyst and evaluation of desulfurization. A 100 pounds-per-hour PDU is planned, in which the reactor uses a molten pool of zinc chloride to convert the coal. The design of the process development unit is scheduled for FY 1976.

(4) Disposable Catalyst Hydrogenation. This process uses very cheap catalysts that avoid the expense of its recovery or reuse after a single pass with coal through a hydrogenation reactor that converts the coal to sulfur-free oil. The catalyst is discarded with residual ash. Concurrently with the operation of PDU's up to 10 TPD and determinations of the advantageous catalyst combinations for liquefaction and desulfurization, the Government is contracting for the design of pilot plants and economic feasibility studies. When sufficient data have been gathered to warrant continuation of the project a pilot plant will be proposed.

b. Solvent Extraction. These processes involve a solvent to extract a solid or liquid product from coal; the solvent acts as the agent that transfers hydrogen to the coal to extend the degree of liquefaction. The FY 1976 request provides for an increase of $5,403,000 in budget authority, primarily to be utilized for the Costeam process PDU and the Chemicals from Coal laboratory study. The much larger cost increase of $12,133,000 over FY 1975 levels provides for the payment of vouchers against prior year obligations as well as costs resulting from new obligations in FY 1976.

(1) Costeam Process PDU. Most processes for the conversion of coal to oil use hydrogen under conditions of high temperature and pressure in the presence of a catalyst. The Costeam process, however, is a new process in which coal is reacted with carbon monoxide or synthesis gas (carbon monoxide and hydrogen), and steam. The advantage of this process is that it does not require a catalyst to convert low-rank coals, such as lignite, into low-sulfur fuel oil. In addition to savings of catalyst cost, low-purity carbon monoxide or synthesis gas for this process costs less than the usual hydrogen. In FY 1976 the design of the process development unit will be completed and the decision on construction will be made. The PDU treats about 10 tons of coal per day. Operation of the laboratory reactor will continue to support the PDU work.

(2) Solvent Refined Coal (SRC) Pilot Plant. In the solvent refining process, coal is dissolved in a self-generated solvent under moderate hydrogen pressure. The solution is filtered to remove ash and insoluble organic materials and fractionated to recover the solvent, yielding the refined product. Solvent refined coal, a low melting solid or liquid, contains about 0.1 percent ash and less than 1 percent sulfur. The solvent refining process removes all of the inorganic sulfur and up to 70 percent of the organic sulfur in the coal. Construction of a 50 TPD pilot plant was completed in FY 1974 with startup and operations proceeding in FY 1975. This pilot plant is being modified to recycle unconverted coal, thereby improving the quality (more fluid, lower sulfur) of the solvent refined coal product. The improved mode will be used for operation in FY 1976.

(3) Delayed Coker Process PDU. The objective of this project is to investigate the technical feasibility and economic potential of conversion of coal to distillate fuels by extraction followed by thermal cracking in a delayed coker (200 pounds-per-hour PDU). The key feature of this process is the use of a delayed coker for removal of the residue and ash instead of filtration as in the SRC process. If successful, this process could be readily scaled up with a high degree of confidence because the equipment and the related technology are now readily available. The process could be incorporated into the solvent refined coal pilot plant after PDU operation through FY 1976.

(4) Chemicals from Coal. A laboratory study of the feasibility of using coal liquefaction products as a source of chemical intermediates is underway which will provide a basis for design and cost estimates for a commercial chemicals plant. This work, which will continue in FY 1976, will define technology for use of coal liquefaction products for the production of useful aliphatic and aromatic compounds. Product samples from several liquefaction processes such as the Solvent Refined Coal process will be subjected to upgrading processes, analytical inspections, and otherwise subjected to laboratory evaluations for characterization. Utilizing data from these studies, preliminary process flow sheets and materials balances will be prepared. Capital and cost estimates will be generated for commercial chemicals plants to supply replacement for petro-chemicals that are in short supply.

c. Pyrolysis. These projects involve some form of coal pyrolysis or carbonization which amounts to destructive distillation, yielding a liquid product and a char. The projects are aimed at maximizing liquid yield and utilizing

the by-product char. The advantages of the pyrolysis process lie in economy of relatively lower pressure operations. The FY 1976 request is actually $4,600,000 less than the FY 1975 level on a budget authority basis, and $100,000 less on a cost basis. Operations of the Char-Oil-Energy-Development (COED) process have been completed with a resulting decrease in FY 1976.

(1) Clean Metallurgical Coke/Liquids. The objective of this project is to enable the use of high sulfur coals for metallurgical coke production, and to avoid pollution in the coking process, simultaneously producing liquids (tar) and hydrogen for separate hydroliquefaction of additional coal for upgrading the tar. The clean coke process combines low-temperature carbonization and hydrogenation of coal. The process emphasizes the production of coke and chemical products, but production of liquid fuels is included. The process requires no external hydrogen supply and is essentially nonpolluting. Bench-scale work is complete and encouraging. A 1,000 pounds-per-day PDU was completed with startup operation in FY 1975. Based on operational data from the PDU, a 500 tons-per-day pilot plant will continue to be designed through FY 1976.

(2) Hydrocarbonization. The concept of this process is to do carbonization (pyrolysis) of coal in the presence of hydrogen at pressures in excess of 100 atmospheres, which increases the oil (tar) yield above the amount normally obtained from carbonization at atmospheric pressure. Utilizing technology that has been developed from the Char-Oil-Energy-Development (COED) and Clean Coke processes, the Holifield National Laboratory will construct in FY 1975 and operate in FY 1976 a 20 pounds-per-hour PDU to solve feeding and withdrawal problems and to optimize conditions and reactor design. Concurrently, an engineering feasibility study will be done for a conceptual full-scale plant to evaluate the benefits and problem areas of this process for producing clean liquid fuels with clean gaseous side-products.

d. Indirect Liquefaction. Indirect liquefaction involves gasification of coal into carbon monoxide and hydrogen (synthesis gas) followed by converting the bases into liquid fuels by appropriate catalysts. The high-Btu gasification processes produce some of the required methane in the reactor, and the surplus syn-gas from the reactor is methanated catalytically. The "Liquids and High-Btu Gas" indirect liquefaction process is an alternate, hybrid process where the surplus syn-gas is liquefied, instead, for easy separation from the purified methane, which is then used directly as substitute pipeline gas. This hybrid process may be more economical and operable than methanation. The FY 1976 request provides for a moderate decrease of $800,000 in budget authority from the FY 1975 level. On a cost basis the FY 1976 level is $1,300,000 over FY 1975 which includes expenditures against not only obligations in FY 1976, but also obligated balances of prior periods.

e. Support Studies and Engineering Evaluations. Support projects are necessary to facilitate development of the various liquefaction processes toward commercialization. Components of this supporting program include engineering evaluations, cost estimates, design services, materials and equipment development, support studies for hydrogen generation, the characterization of liquid fuels from coal and refining synthetic fuels, as well as support in the area of program planning and reporting. Laboratory

studies on lignite liquefaction, liquefaction of Western sub-bituminous coals, desulfurization, and process development of new liquefaction processes are also included. The FY 1976 request provides for a modest decrease of $2,288,000 measured on a budget authority basis. However, costs will increase by $9,882,000 over FY 1975 which include the effects of previous years' obligations.

(1) Engineering Support. Experienced engineering firms are retained to conduct preliminary reviews of projects and to help appraise the technical status, commercial feasibility, and economic impact of the various processes. Cost estimates of alternative pilot plants are also evaluated for information in the economic viability of alternative processes. The contractor will have access to computer services and will provide cost engineering and process economic studies and services to private industry and the Government in a concerted effort to expedite selection of the most promising process at minimal cost.

Research and engineering efforts necessary for the development of specialized processes, materials, and equipment will be continued. Specific problems include: development of improved reactor designs for contacting coal and hydrogen over catalysts; the development of cheaper, longer-lived and poison-resistant catalysts; upgrading of crude synthetic fuels to lighter fuels and chemicals; detailed studies on liquefaction kinetics and reaction mechanisms; and environmental control in liquefaction processes. Special materials and novel mechanical component designs will be developed in laboratories, and the scaleup models of successful laboratory tested materials and devices will be used in the equipment development project which will provide pilot plant size test loops.

The Government's Cresap, West Virginia, facility is being used initially for the development project as an engineering test center to evaluate various critical components, such as reactor systems and liquid-solid separators. The facility will also be used to determine the reliability of conventional equipment such as valves, pumps, etc., all of which are equipment common to most liquefaction processes. Novel items developed in the materials development project will also be tested. Upon completion of equipment development and testing, an integrated coal liquefaction process designed to produce low-sulfur fuel oil will be demonstrated at the Cresap facility. The integrated process will consist of the optimum combination of the proven reliable components as demonstrated at the initial testing.

Design feasibility and cost studies will be continued during the fiscal year to determine the best procedure for producing the hydrogen needed to liquefy coal (hydrogen generation). Support studies on the charaterization of liquid fuels from coal will also be continued to determine the physical and chemical characteristics of products from various processes and different conditions of temperature, pressure and flow rates. The ultimate objective of this project is to be able to select the type of conversion process and operating conditions to provide liquid from coal having the most favorable refining characteristics.

Laboratory and bench-scale studies are being conducted to evaluate and develop processes for refining crude synthetic fuels from coal to diesel fuel, gasoline, jet fuels, and other refined products. Studies

will also be made for refining other liquid coal products to upgrade, fractionate, and process the raw oil streams produced in the several liquefaction units operating at the PDU or pilot scale. Evaluations will be made on the behavior of synthetic oil from coal products and their response to upgrading treatment, and to provide test quantities of specific product fractions and qualities for use testing (e.g., combustion test, motor tests, etc.).

Support in the area of program planning for liquefaction has been initiated to achieve full control of a balanced and timely program to meet established objectives. This support will aid in program definition, assure adequate resources allocation and expedite management and budget decisions needed to insure optimum output from available funds.

(2) Other Support. Novel liquefaction processes will be undertaken to explore and develop new liquefaction processes as candidates for second and third generation improvements in the technology. Liquefaction agents other than hydrogen and methods of enhancing the reactivity of hydrogen will be emphasized. Other elements of the project include: direct synthesis of aromatic fuels from carbon monoxide and hydrogen, liquefaction of bituminous coal with synthesis gas, and production of petro-chemical feedstocks from coal.

Laboratory studies on lignite liquefaction, liquefaction of Western sub-bituminous coals, and desulfurization are being conducted concurrently with certain ongoing projects which are advanced or have advanced out of the laboratory stage into the process development unit (PDU) stage or directly into support pilot plant operations. Studies on lignite are aimed at defining the optimum procedure for converting lignite into liquid fuel, with bench-scale laboratory research in (a) solvent extraction under pressure of hydrogen, carbon monoxide, steam and mixtures thereof, (b) carbonization, (c) direct hydrogenation, and (d) upgrading of any of the initial liquid products by second hydrogenation and/or distillation.

A simplified process for liquefaction of Western sub-bituminous coals is being developed which can be applied only to this class of coal because of its non-agglomerating character. Problem areas being investigated are catalyst recovery, improved catalysts and mode of application, increasing liquid yield to decrease byproduct char by improved reactor designs, and upgrading of products by hydrotreatment. A 50 pounds-per-hour PDU to reveal any long-term operability problems will be constructed and put into test operations.

Other studies will be carried on in support of the liquefaction program in areas such as the development of efficient techniques for separating ash, unreacted coal and pyrite from the liquid product; new equipment designs for high pressure, high temperature liquefaction reactors; and metallurgical research and development for producing materials and equipment capable of withstanding the corrosive and abrasive conditions involved in coal liquefaction.

2. High-Btu Gasification - $15,003 No Positions

Objectives:

The objective of the High-Btu Gasification subprogram is to provide improved technology for the manufacture of pipeline gas from coal; improvements which will conserve coal as they permit greater efficiency, and will decrease the cost of manufacturing gas by about 20 percent when compared to present technology.

This subprogram, the furthest along technically, will be pursued vigorously, and pilot plants will be operating in the FY 1975-76 period. The most promising process or combination thereof will be used to design a demonstration plant, construction of which is now targeted to begin in FY 1977. The overall program goal is to provide the technology for construction of full commercial scale plants in the early 1980's.

Accomplishments:

Five high-Btu gasification pilot plants will be in operation by the end of FY 1976. The HYGAS plant in Chicago, Illinois, and the CO_2 Acceptor plant in Rapid City, South Dakota, have been in operation for approximately three years. The Synthane plant in Bruceton, Pa., will be completed and operating by the end of this fiscal year, as will be the Ash Agglomerating plant in Columbus, Ohio. The Bi-Gas plant in Homer City, Pa., will be completed in FY 1976.

In addition to the pilot plants, a major support effort in this subprogram is the steam-iron project which was initiated in FY 1973. A steam-iron process unit to produce hydrogen for the hydrogasification of coal in the HYGAS process is being constructed in Chicago, adjacent to the HYGAS pilot plant to enable future integrated tests. The design of the unit has been completed, the majority of the equipment has been ordered, and construction has been started.

In 1971 industry, represented by the American Gas Association (A.G.A.) and the Government joined together in a cooperative effort to establish a viable coal gasification industry by means of a joint accelerated research and development program. An agreement was initiated to jointly provide funds (two-thirds by Government and one-third by industry), beginning in FY 1972.

This subprogram provides for the continued development of each of five different, but technically feasible, processes for the conversion of coal to high-Btu gas. It was determined that only concurrent development of each concept through the pilot plant stage could generate, within the shortest period of time, the data necessary to determine which of the five concepts is more suitable for implementation on a commercial scale. At the same time the program recognizes the need to develop a suitable and compatible methanation process, to investigate state-of-the-art gasification systems and to initiate support studies for the development of advanced structural materials, sophisticated processing equipment and supporting unit operations.

As specified in the agreement establishing the cooperative program, A.G.A. has planned to contribute one-third ($10,000,000) of the jointly funded yearly budget. The Government, in addition to its cooperative share of $20,000,000, is requesting additional funds necessary to offset cost escalation, construction delays resulting from difficulties in acquiring suitable materials, and to initiate studies and engineering evaluations considered essential to demonstrate a high-Btu coal gasification plant by 1980.

Need for Increase :

On a cost basis, the FY 1976 level for high-Btu gasification will decrease by $15,003,000 as compared to FY 1975. Costs in 1976 are large for the operational stages of pilot plants. Higher costs in the current fiscal year reflect heavily the payments required for the earlier construction phases of pilot plants. However, on a budget authority basis, this subprogram will increase by $3,559,000 in FY 1976 over the FY 1975 level. The primary areas of increase, on a budget authority basis, will be for the final construction and start-up phases of the Bi-Gas pilot plant and the steam-iron process unit.

Natural gas currently provides one-third of the energy utilized in the United States. The demand for this environmentally acceptable source of fuel, transportable through an existing transmission system, is continually growing. This growing demand has resulted in a consumption rate greater than the discovery rate. The domestic reserves of natural gas are dwindling. Other sources of natural gas or substitutes must be found. The high-Btu gas program will promote the development of those processes that can at an early date provide alternate sources of this fuel through the conversion of coal.

a. Development of New Second Generation Coal Gasification Techniques.

(1) HYGAS Process. The development of this high-pressure process for the conversion of coal to high-Btu gas was initiated in 1946 by the Institute of Gas Technology under the sponsorship of the American Gas Association. The early origin and continued development of this concept, which attempts to maximize the yield of methane obtained within the hydrogasifier by operation at high pressures have contributed to its advanced state of development. Under the sponsorship of the Office of Coal Research, the technical feasibility of the concept was demonstrated during bench-scale studies. Construction of the pilot plant was begun in Chicago in 1969 and completed in 1971. The HYGAS pilot plant represents a capital investment of approximately $10,000,000, and is designed to convert 75 tons of coal to 1.5 million cubic feet per day of high-Btu gas.

A number of successful runs have been completed at the design pressure of 1,000 pounds per square inch. This experimental program was interrupted during the last quarter of FY 1974 to install a steam-oxygen system on the hydrogasifier for the production of hydrogen. When system startup and shakedown activities have been completed, the pilot plant developmental program will be continued. It is anticipated that continued operation of this integrated facility through FY 1976 will generate the data required in the evaluation of the HYGAS process.

(2) Carbon Dioxide Acceptor Gasification Process. This process, which uses the heat of reaction of calcium oxide and carbon dioxide to provide the necessary heat for the gasification reaction, was developed by Consolidation Coal Company. The principal features of the process had been demonstrated on a laboratory scale by 1964 when the Office of Coal Research awarded a contract to support the continued development of the concept on a bench-scale. This phase of the work was completed in 1968. Feasibility studies performed both before and after the bench-scale work indicate that the process has potential commercial possibilities.

The construction of a $9,000,000 pilot plant at Rapid City, South Dakota, was begun in January 1970 and completed in November 1971. After solving a number of operational problems associated with the numerous interrelated solid transfer systems, four integrated runs --each of over 100 hours in length--have been completed. During one run of 168 hours duration, a synthesis gas containing component compositions better than that anticipated in the design was produced.

A methanation pilot plant is being constructed at the Rapid City site. The addition of this facility will permit the commercialization of all processing steps required to convert coal to high-Btu substitute natural gas by means of the carbon dioxide acceptor coal gasification process. This unit will be phased into the operation of the pilot plant and will be operated through FY 1976 to complete the developmental objectives of the program. The data generated will be used to evaluate this concept of coal conversion.

(3) BI-GAS Process. The BI-Gas process for the production of high-Btu gas is the result of a program that began in 1964. The conceptual process developed successfully by Bituminous Coal Research, Inc. through bench-scale stage, has demonstrated that by operating at high pressures one-third of the coal added to the primary reactor vessel can be converted to methane directly as it passes through the reactor. The last stage of the reactor is maintained at temperatures high enough to melt the coal ash prior to discharge. As the only slagging-type gasifier now being developed in the high-Btu gasification program, this process offers the opportunity to determine those operational parameters that will permit maximum utilization of the carbon in the coal and minimization of the volume of waste products discharged.

The next stage in the development of the process--design, construction and operation of the pilot plant--was begun in 1971. The design of a large-scale, fully integrated 5 tons-per-hour pilot plant has been completed and the construction has begun at a site in Homer City, Pennsylvania. The current construction schedule indicates that startup and shakedown activities will be in process during most of FY 1976. Toward the end of this period, the experimental program will be initiated.

(4) Self-Agglomerating Fluidized Bed, Two-Stage Process. The Columbus Laboratory of the Battelle Memorial Institute is conducting a program for the development of a two-stage fluidized bed process for gasification of coal. This process applies the self-agglomerating fluidized bed technique for burning coal with simultaneous pelletization of the ash formed during combustion. The ash agglomerates formed in the combustion bed are free-flowing spherical particles, which are circulated through the gasifier as a direct-contact heat transfer medium to provide the heat for the steam-carbon reaction. This gasification process offers two significant advantages. First, the agglomerating action that takes place within the burner serves to collect the ash to allow the gas to be expanded in a turbine for recovery and reuse of the energy. Second, the use of the agglomerated ash spherical particles to supply heat in the gasifier eliminates the need for partial oxidation and, thus, the need for oxygen.

(5) Synthane Process. In this process, coal is reacted with steam-oxygen to destroy caking tendencies and then gasified in a fluid bed at 1800° F. Gas leaving the gasifier is cleaned to remove fines and tars. The cleaned gas passes through a shift reactor to adjust the hydrogen to carbon dioxide and sulfur compounds. Finally, the purified gas passes to the methanator for conversion to methane, thereby increasing its heating value to that of natural gas. A pilot plant will be equipped to test two methanation systems--hot gas recycle and the tube wall methanation. The Synthane process has several advantages. It can handle any rank of coal, including highly caking bituminous coal. The simplicity of the process also results in good operability and reliability characteristics. Finally, about 60 percent of the total methane is formed in the gasifier, reducing the quantity of oxygen needed and thus the capital requirements for methanation.

In FY 1976, the 75 tons-per-day pilot plant in Bruceton, Pennsylvania, will be operated to provide the chemical and engineering data essential for the development of a demonstration plant. Simultaneously, the laboratory Synthane reactor will be operated to provide data for process improvements and to evaluate modifications to the process.

(6) Hydrane Process. This process is a promising coal gasification technique in which almost all of the methane is produced in the gasifier by hydrogasification. Since high-volatile bituminous coal is fed directly to the gasifier without caking and agglomerating, expensive coal pretreatment is eliminated and the hydrogen-rich portion of the coal is recovered as part of the product gas. In the overall process, 50 percent of the coal is converted and the residual char is then used to generate hydrogen required for the process. About 95 percent of the methane product is made in the hydrogasification reactor from the raw coal by treatment directly with hydrogen. This results in a high thermal efficiency and makes the Hydrane process potentially one of the least expensive ways to convert coal to substitute natural gas.

The decision to build the Hydrane process development unit, which will process 10 tons of coal per day, will be made during FY 1976 after completion of the detailed design. The Hydrane process laboratory reactor will continue to be operated to obtain additional information needed for scaleup.

b. Support Studies and Engineering Evaluations

(1) Engineering Evaluations. The combined Government/industry (represented by A. G. A.) high-Btu gasification program contains numerous coal gasification pilot plants and auxiliary system with a large number of complex processing systems embodying all phases of engineering expertise. In recognition of the diverse types of engineering talents required to technically support such a program, highly qualified engineering firms have been contracted to assist in the administration of the program. The firms will assist, as necessary, to develop each process to its maximum potential; to gather the essential data necessary to delineate the advantages and disadvantages of each competing process; and to determine that process and/or combination of component processing steps that appear to offer the greatest economic potential when constructed as a commercial facility. In addition, the evaluation will attempt to determine those areas of development required to make

available all the technical data, materials and equipment necessary in the construction of a commercial high-Btu gasification facility.

(2) Hydrogen Gasification. An economic source of hydrogen is essential to the success of both hydrogasification and hydroliquefaction processes. The most expedient source of hydrogen in any coal hydrogenation process appears to be from gasification of the residual chars produced. Based on laboratory testing of several process chars in FY 1975, a 15 tons-per-day process development unit (PDU) will be designed in FY 1976 to test hydrogen gasification on a larger scale. A decision on construction of the PDU will be made in the latter part of FY 1976. Operation of the laboratory reactor will be continued to improve the PDU design and to provide data for scaleup.

(3) Development of Auxiliary Processes. The high-Btu pilot plant program is characterized by the development and demonstration of several unique techniques of coal gasification. A commercially feasible facility will, however, contain a number of other auxiliary systems, each of which will directly affect the final delivered price of the end product. Because of the importance of such systems the high-Btu gasification program is supporting the investigation and development of a number of processes that will either become, or contribute to the efficiency of, a particular auxiliary system. Ongoing projects include:

(a) Steam-Iron Process. One of the essential elements in the development of the HYGAS process is the adequate and economic supply of hydrogen, which is being pursued through the steam-iron project. This process, which is based on reversible cyclic reduction and oxidation of iron oxides, is particularly suited to the production of the required hydrogen for the HYGAS process. The design for the steam-iron process unit has been completed, the majority of the equipment has been ordered, and the initial phases of construction started at the same location as the HYGAS gasifier. The overall schedule calls for initial operation of the plant to begin in the fall of FY 1976.

(b) Liquid Phase Methanation Process. Development work on the liquid phase methanation process began in April 1972. This process is ideally suited to the safe and reliable conversion of high concentration carbon monoxide streams to methane. The first phase of a three-phase program--exploratory research and development bench-scale studies--has been completed. The process development unit (PDU) required for the studies to be performed in the second phase has been constructed and placed into operation, and the design of the pilot plant to be constructed and operated in the third phase has been completed. The equipment for this facility has been ordered and construction has begun. Following construction during FY 1975, the pilot plant will be operated throughout FY 1976. This operation will generate the data necessary to evaluate this technique of converting synthesis gases to substitute natural gas.

(4) Equipment Development. The production of high-Btu gas from coal will involve feeding of exceptionally large amounts of coal (16,000 to 100,000 tons per day). The coal must be reduced to closely graded particle sizes

and must be added to reactors operating at elevated pressures (150 - 1500 pounds per square inch) and temperatures (1500-3000° F). Particulate matter and impurities must be separated from product gases and char. Ash material must be discharged from the reactor. The equipment required for many of these tasks such as grinders, pumps, valves, filters, separators, instruments, power recovery turbines, etc., do not exist. New concepts must be generated, the most suitable commercial equipment must be modified, new equipment must be designed and all the resulting new items of equipment tested with a demonstration of reliable performance before they can be considered for use in the commercial facility.

(5) Materials Development. New processes being developed for the generation of high-Btu gas from coal have combinations of temperatures, pressures and operating conditions that create considerably more stringent requirements for materials of construction than are required in other sectors of chemical product manufacturing. To specify the materials that can survive these conditions with a high degree of reliability, it is necessary to know and understand the behavior of many candidate metals and ceramics under actual use conditions. A construction materials test program has been initiated to subject a wide range of materials to actual conditions of temperature, pressure and gaseous components currently existing or anticipated in each of the pilot plants being developed. The response of these materials to their environment will be recorded and become the basis for subsequent materials specification. In addition to the screening and evaluation tests, a materials development program will be initiated that will generate the new ceramics and metal alloys required.

(6) Process Development. As various candidate processes that appear to offer a processing capability and/or a new material needed for any one of the principal gasification techniques under development become known, the development efforts required to establish their feasibility will start in this part of the overall program. Processes that have been initiated through these support efforts include several processes for generating hydrogen (e. g., the electrothermal gasification of char, the steam-oxygen process and the steam-iron process). The experimental programs initiated during the previous fiscal year in each of the areas mentioned above will be continued during FY 1976. Specific programs will be started as needed to support the design and selection activities of the evaluation engineering firm. The need for specific data will become more pronounced during FY 1976.

(7) Novel Gasification Processes. This project will be devoted to the development of second and third generation gasification processes. Laboratory and bench-scale research will be carried out with the aim of development to the PDU stage. This project will focus on applied research. Unique reactor designs for both gasification and methanation will be considered. New concepts which will be pursued include: a free-fall gasifier combining integral pretreatment carbonization and gasification; a spouting pretreater (feeding coal through a center tube in the gasifier) using the product gas to replace the incoming steam-oxygen mixture and the application of heat pipes as a heat addition scheme in gasification and a heat removal system in methanation.

3. Low-Btu Gasification + $29,363 +3 Positions

Objective:

The objective of the Low-Btu Gasification subprogram is to develop, at the earliest possible date, one or more gasifier systems which are economically applicable for the use of coal as a substitute for oil or natural gas for power generation and industrial use. The shortage of electrical energy that the nation faces over the coming years is due in part to our inability to convert known resources economically to electric power. Restrictions on sulfur-dioxide emissions have created a need for new processes capable of converting high-sulfur coals economically to an acceptable powerplant fuel, while complying with stack-emission regulations.

In order to compress the time required to develop a suitable gasification system, several feasible concepts are being studied concurrently. The results of these efforts will permit evaluation and comparison of techniques and provide a basis for selection of the most economical process in the shortest time.

Accomplishments:

The Low-Btu Gasification subprogram was initiated in FY 1973 and the projects are still in the early stages of development. However, some significant results have been obtained and two pilot plants are now under design--the fixed bed atmospheric plant to be located at Wattsbar, Tennessee, and the entrained bed pressurized plant at Sioux Falls, South Dakota.

In addition to the pilot plant projects under progress, engineering and final design for an atmospheric pressure, entrained flow gasifier for a 5 tons-per-hour combined cycle power system will be completed in FY 1975. Operation of a 1200 pounds-per-hour fluidized bed gasifier PDU is also being continued at the Westinghouse laboratory in Philadelphia, Pennsylvania, and a determination will be made in FY 1976 on further development of this concept.

Field studies in underground gasification of Western coal beds were initiated in FY 1973. The continuation of this work, including oxygen-injection studies, is programmed through FY 1976.

Need for Increase:

On a cost basis, FY 1976 funds for this subprogram will increase by $29,363,000 over the FY 1975 level. This significant increase reflects sizeable payments for obligations incurred in previous years as well as for the obligations to be recorded in the budget year. The budget authority required in FY 1976 for this subprogram is $45,389,000, a decrease of $11,091,000 from FY 1975. This decrease is predominantly attributed to a lessening requirement for support studies and engineering as the projects move closer to actual pilot plant and test facility stages. In addition, a small decrease was made in the area of underground gasification projects.

Low-Btu gas from coal offers one of the most promising methods of using coal as a utility fuel in an economic and environmentally acceptable manner. A clean, particulate-free, low-Btu gas has a great potential for use in combined gas-steam turbine power cycles, providing the possibility of a significant increase in thermal efficiency in electrical power generation.

The Low-Btu Gasification subprogram is directed toward processes that will produce a low-Btu gas (100 to 500 Btu's per cubic feet) suitable for power generation, combined gas-steam turbine power cycles, and other industrial uses. The advantage of low-Btu gas lies in lower costs. Because the low-Btu process is less complex than that for the high-Btu gas, the capital cost could be lower on an equivalent Btu basis. Operating costs could also be lower as some energy-consuming steps would not be needed and the overall thermal efficiency would be higher. The subprogram provides for the development of above ground gasification for operation at near atmospheric and higher than atmospheric pressures, supplemented by the development of underground coal gasification technology. The state of development of near atmospheric gasification is currently more advanced than that of pressurized gasification. Therefore, the intent of the subprogram is to promote the development of near atmosperhic gasifiers as a primary objective and at the same time begin development of higher pressure gasifiers in order to provide a commercially acceptable process at the earliest possible date.

a. Low-Btu Gasification Processes

(1) Fixed-Bed PDU and Pilot Plant (Atmospheric). This project, cosponsored by ERDA (Fossil Energy) and the Tennessee Valley Authority (TVA), will provide for the installation of two or more large fixed-bed gasifiers and desulfurization systems at an existing TVA generation station in Wattsbar, Tennessee. The purpose of the project is an effort to solve some of the engineering and environmental problems associated with the industrial use of caking coals. The four-year program will be coordinated by ERDA (Fossil Energy) and will be an extension of the previous effort at the stirred fixed-bed gasification process development unit at the Energy Research Center in Morgantown, West Virginia. This effort will permit the use of highly caking run of the mine coal to study the various problems of operation, process control, large scale design and retrofit at an existing station under actual operating conditions. Renovation of the stirred fixed-bed PDU (18 tons of coal per day) at Morgantown will be completed in FY 1976. The unit will then be operated at different pressures and with different types of coal to determine changes in capacity as a function of these parameters and to determine operating and design conditions for a full-scale unit. Technical assistance for the large-scale development of the pilot plant at the TVA site will be provided by Fossil Energy personnel. An engineering firm has been selected for the preliminary design of the pilot plant which is scheduled for completion in late FY 1975. The final design is to be completed in FY 1976. Industrial participation for this project will be sought to ensure useful results as soon as possible, utilizing the aforementioned PDU and pilot plant.

(2) Molten Salt PDU (Pressurized). Preliminary research and some pilot gasifier work of this process have been performed with electric utility industry support. The key parameters required for low-Btu gasification have been demonstrated. In this process, coal is partly burned and completely gasified in a molten salt furnace. The sulfur and ash from the coal are retained in the melt, and the gases flow to a conventional gas-fired boiler where combustion is completed to produce steam for electric generation. A contract was finalized in December 1974 and work has begun at a Rockwell International facility in Canoga Park, California.

(3) Entrained-Bed PDU (Atmospheric). This gasification system is an atmospheric entrained-bed slagging gasifier capable of producing low-Btu

gas from highly caking coals containing a high percentage of sulfur. This gas will be treated for particulate and sulfur removal. Preliminary design considerations indicate this gasifier can be operated with a carbon consumption efficiency approaching that of a coal-fired steam generator with a projected heat rate of about 10,200 Btu's per kilowatt hour, making this project one of the more promising possibilities for early utility use. Following completion of the preliminary design and evaluation work during FY 1975 the final design is programmed for completion in FY 1976. At that time, the fabrication of the system will be started for for the test facility to be built in Windsor, Connecticut.

(4) Fluid-Bed PDU (Pressurized). There are two ongoing projects to develop the technology of the pressurized fluidized-bed gasification process. The three-stage fluid-bed gasifier project is an extension of the small scale gasification research and development work which was started in December 1963. This work has indicated a degree of success sufficient to warrant a process development unit (PDU) for the further development of a fluidized-bed gasification process for commercial operation. All types and ranks of coal will be used to provide a low-Btu gas, free from char, tars, sulfur or carbonyl sulfides, and full operation of the PDU is planned for FY 1976 at the BCR Laboratory in Monroeville, Pa. The second project is a two-stage pressurized fluidized-bed gasifier with integral sulfur removal by injection of limestone as the sorbent for hydrogen sulfide. The overall power conversion system will consist of the sulfur absorbent regenerator, gas turbine combined-cycle power conversion equipment along with the fluidized two-step gasifier. The research and development effort is divided into two phases--the 1,200 pounds-per-hour PDU has been completed, and operation of the PDU will be underway during FY 1975 at the Westinghouse Laboratory at Waltz Mill, Pennsylvania. If warranted by this operation, a 5 ton-per-hour unit will be constructed at some future date to further develop the process.

(5) Entrained-Bed Pilot Plant (Pressurized). This pressurized entrained-flow gasifier pilot plant should be under construction by the end of FY 1976. The unit will process about 20 tons of coal per hour. Airborne particulate discharge levels from commercial size powerplants of this kind should be less than now being achieved with high-efficiency precipitators, with acceptable levels of sulfur emission. Sulfur is removed in this process as elemental sulfur. In operation, the high-temperature exhaust from the gas turbine will contain substantial energy which will be recovered in a waste heat boiler and used to drive a steam turbogenerator. The final design of this plant is programmed for completion in early FY 1976, followed by the fabrication of some system components.

b. In-Situ Gasification. The objective of this work is to gasify selected Western and Eastern coal beds in place to produce fluid fuels that are environmentally and economically acceptable for electric utility boilers and gas turbines. Related benefits of successful underground gasification would include elimination of the environmental disturbances associated with surface mining, elimination of the health and safety hazards associated with underground mining, and near-term conservation of oil and natural gas. In 1973, the Bureau of Mines began field studies in a coal bed near the town of Hanna, Wyoming. Sixteen boreholes were drilled about 400 feet down from the surface into a 30-foot coal bed. In March 1973, the coal was ignited and

combustion and gasification have been controlled since then by regulating the air pumped down the centrally located surface boreholes. The gas production, rate and quality, has been highly encouraging. During FY 1976, field studies in the Western coal beds will continue. Oxygen injection will be used to increase the heating value of the gas and hydrological/environmental studies will be undertaken. The production of methanol and/or ammonia via underground gasification will be investigated. In addition, field experiments will be initiated in one or more Eastern coal beds, particularly in thin beds using slant hole drilling to produce long horizontal drill holes. Gasification at the Eastern field site is expected to begin in FY 1976.

c. Support Studies and Engineering Evaluations.

(1) Engineering Support. Technical and engineering services, including assistance in proposal evaluations, process selection, preparation of cost estimates, preliminary engineering design, and the collection, evaluation and assembly of technical data generated by the various projects will be provided by an engineering firm under contract with the Government. Proposed new and improved gasification processes, coal feed, and gas cleanup schemes are being evaluated and considered for funding in the future. During FY 1976 many of these proposals will be critically reviewed.

Compilation of a coal conversion data book for Fossil Energy Development use will be continued in FY 1976. This handbook will include data pertaining to all phases of coal conversion and will be of value to the entire Fossil Energy Development program. These handbooks, which are essential aids to engineers must present data in condensed form and with little critical evaluation, are prone to be outdated and not sufficiently comprehensive for the task at hand. This has led the large engineering firms to develop data books of technical and design information for the specific design and evaluation efforts of interest to them. The planned handbook will be for the use not only of the Administration, but also by the many organizations participating in the national program for conversion of coal to clean fuel.

(2) High Temperature Gas Cleanup. High temperature gas cleanup projects include:

(a) Cleanup with Molten Salt. This project is for the development of a fused salt scrubber system for removal of flyash and sulfur compounds from low-Btu fuel gas at high temperatures in order to meet the stringent requirements for clean gas needed for combustion in a turbine. By cleaning the gas at high temperatures as generated, sensible heat is conserved, improving overall thermal efficiency. This process will complement many of the gasification processes described above by providing the gas cleaning necessary for combined cycle operation. The process utilizes molten salt scrubbing of the fuel gas at temperatures up to 2,100°F for removal of particulates and sulfur compounds. Fuel gas from a fixed-bed gasifier will be scrubbed in a venturi scrubber using molten salt working fluid. The molten salt will be recovered in a baffled settling chamber with a demister section, filtered, regenerated and recycled. The project includes a pilot-scale scrubber system and demonstration runs are planned to provide data for design and operation of a scrubber for a 50 megwatt

installation preventing corrosion and erosion of the turbine and maintaining environmental contamination at satisfactory levels.

(b) Cleanup with Iron Oxide. Removal of hydrogen sulfide and particulates from low-Btu gas, while preserving the thermal energy of gas steam, is still an unsolved problem. Efforts will continue on the development of a "hot gas cleanup" process for hydrogen sulfide removal with emphasis on regeneration of the sorbent. Improved particulate removal systems will be investigated. Operation of the bench-scale (18,000 standard cubic feet per hour) gas cleanup system, currently under construction, will begin in FY 1976. Design of a large scale unit (160,000 standard cubic feet per hour) will also begin in FY 1976.

4. Advanced Power Systems + $1,304 No Positions

Objectives:

The Advanced Power Systems subprogram goal is to establish the technology base which will allow proceeding with the development of one or more advanced electrical power generating systems using coal and/or coal-derived fuels as the energy source. This subprogram will, after the performance analysis and cost evaluation, engage in a technology demonstration which can lead to full sized equipment at minimum cost while fostering early availability of industrial units. All systems will not be pursued through to large-scale pilot or demonstration plants. Each concept will be aimed at getting the technology information necessary to determine a concept's merits relative to other concepts, and adjustments in individual projects will be made from year to year.

Accomplishments:

The economic feasibility has not been demonstrated for any of the alternative technologies at least for the high load factor base load requirements. It is also recognized that in this subprogram there exists major gaps between the present technological state-of-the-art and the technology level required to achieve the subprogram's goals. However, all the systems are potentially marketable to the utilities industry provided they are developed to the capability required.

Efforts underway in FY 1975 include the turbine cooling and materials capability investigations, fireside corrosion testing evaluation of commercial materials, and continuing support studies and engineering evaluations.

Need for Increase:

The FY 1976 request provides for an increase, on a cost basis, of $1,304,000 over the FY 1975 level. This increase is primarily for necessary efforts in connection with the open-cycle gas turbine in the areas of improved cooling methods, blade research at high temperatures, and improved combustor design. In addition, significant efforts will be initiated for the alkali metal turbine cycle project. Finally, activities involving advanced combustor systems, high performance exchanger development and reliability engineering will proceed, all of which are essential to the success of this subprogram.

Advanced power systems are needed in order to effectively generate electricity from coal-derived fuels to alleviate the problems associated with high fuel costs, limited availability of fuels and the burden imposed on the enrivonment by ash,

waste heat and other byproducts. Advanced power systems will enable us to obtain electricity to meet our needs at a reduced comprehensive cost by requiring less fuel to generate the same amount of electricity. The compound growth of the demand for electricity has exacerbated the problems in the 1968-1973 period. It remains to be seen the extent to which the conservation measures of 1973-1974 remain permanent, and their effects on the growth rate. Thus, increased efficiency of power generation is both desirable and needed.

The benefits from the use of more efficient power generation plants include:

the ability to use coals containing higher concentrations of sulfur and other impurities without exceeding environmental limitations on power generation;

the reduced water requirements enabling electric power to be generated in arid areas of the U.S., where coal is abundant;

the reduced fuel requirements of high-efficiency generation equipment;

the increased value of leases of public coal lands where water is scarce;

the ability to conserve low-sulfur coals for metallurgical purposes and export earnings; and

the ability to avoid undue reliance on imported oil.

Advanced powerplants include higher temperature and pressure turbine systems, using steam, air, combustion products, alkali metal vapors, helium, carbon dioxide and other working fluids.

a. Open-Cycle Gas Turbine. Major advantages of this system are that its technology base is quite advanced, private utilities use gas turbines for peaking power and are familiar with its operation on clean fuels, and the technology base has been established through continuous advancements in performance and endurance over the last 35 years. The immediate purpose now is to apply this strong technical base to adapt this advanced system to use of coal-derived fuels.

The gas turbine power application demands two key capabilities: first, high turbine inlet temperatures; and second, improved endurance for long-time, dependable service with coal-derived fuels. Probably the most severe challenge is presented by the fuel supply since the entire performance spectrum of current industrial and aircraft gas turbine engines is predicated on use of a very clean premium fuel. The coal-derived fuels present new, and as yet unsolved, corrosion, erosion, and combustion (particularly with low-Btu gases) problems.

The ERDA program for the budget year is aimed at key advanced system technology needs; for example, research on improved turbine cooling methods required to get higher turbine inlet temperatures, and research on combustors with improved exit temperature profiles and lower NO_x emission. The subsequent program funding is premised on anticipated co-funding from private industry and from indirect technology contributions from other gas turbine programs, particularly the Department of Defense and NASA.

It is anticipated that at least three years of key technology research will be required before fabrication of full-sized components will begin. Industrial programs in this area will commence in FY 1975. Work in the budget year will be concerned with blade research in high temperature gases generated with coal-derived fuels. In addition, the effects of the hot gases produced in the low-Btu gasification process on the materials of construction will be evaluated. Tests will be conducted using a stirred fixed-bed gas combustor at an ERDA laboratory.

b. Alkali Metal Topping Cycle. Significant benefits can result from use of an alkali metal vapor turbine system to top a conventional steam system. There is a possibility that a satisfactory base load operation could be developed at 1,400° - 1,500° F. Establishing this requires considerable long-time liquid metal corrosion data, and a better understanding of the problems involved in scaling up components from the small sizes worked on under the space power program (tens to hundreds of kilowatts) to the size of hundreds of megawatts needed for utility use. To go beyond these temperatures may result in the need for basic metallurgical development. An evaluation must then be made as to whether the increment of efficiency gained is worth the additional cost of very high temperature alloys and the design complexity added, particularly considering the operational and maintenance difficulties intrinsic to all liquid metal systems. There are also facility limitations associated with the concept. None of the large size liquid metal facilities built to support the space power program are still in operation. One new relatively large facility (a 5 MW boiler facility), however, is being constructed at the Holifield National Laboratory with National Science Foundation funds. Depending on the results of the Energy Conversion Alternative Study, funds will be provided for this program in the budget year.

c. Additional Projects. Other advanced power conversion systems, such as advanced steam, closed cycle gas turbine systems, and organic rankine systems, are to be investigated to determine their value and practicality of operation using coal or coal-derived fuels. Combustion tests will be made to evaluate potential problems in burning a water-saturated low-Btu gas and will include combustion efficiency, flame stability, and exhaust gas composition. Efforts will be initiated to determine the development prospects of the high-temperature closed cycle helium heater for delivery of hot gas at a minimum temperature of 1800° F to the turbine.

d. Support Studies and Engineering Evaluations. Contractors are providing broad-based engineering support associated with the overall advanced power program directed toward the development of commercially attractive systems for the conversion of coal to electric power in an environmentally attractive system. This engineering activity is in the areas of system evaluation, fireside corrosion, materials development and qualification component investigation, process studies, coordination of systems design for all alternative systems and program planning. Engineering design and cost estimates are being prepared for advanced power cycle plants, projecting from these figures a final cost figure for the product electricity. Cost benefit analyses are being made on the advanced systems and will be further evaluated to determine the value of pursuing specific alternatives.

5. Direct Combustion + $11,964 +3 Positions

Objectives:

The prime purposes of this subprogram are: (1) to develop both atmospheric and pressurized systems capable of burning high-sulfur coals of all degrees of rank and quality directly in fluidized bed combustors in an environmentally acceptable manner; and (2) to improve the reliability and efficiency of present boilers. The strategy for combustion research is directed toward:

developing a new mode of coal combustion for powerplants, having the potential for substantial improvements of conventional coal-firing modes;

determining methods to burn synthetic, low-sulfur fuels derived from coal, and the chars from coal-conversion processes;

minimizing or preventing fouling and corrosion of heat transfer surfaces in coal-fired boilers;

developing economical processes for desulfurizing powerplant stack gases and high-sulfur coals;

reducing emissions of nitrogen oxides from powerplants; and

determining the fate of toxic elements in combustion systems.

Accomplishments:

The atmospheric, fluidized-bed boiler project has underway the construction of a 30 megawatt (MW) facility, while proceeding concurrently with the design of a 200 MW plant. The 30 MW boiler is now being built at the Monongahela Power Company plant at Rivesville, West Virginia, and is scheduled to be operational by mid-1976. The 200 MW plant design initiated in FY 1975 will continue through FY 1976. A feasibility study and preliminary design for the industrial application of the concept, as well as a study on the feasibility of retrofitting existing boilers will be initiated in FY 1975.

The pressurized, fluidized-bed projects include a 1.8 megawatt development unit used for providing design, materials, and environmental data. Research and evaluation leading to the design of a combined cycle pilot plant, 20-60 megawatt, is now underway. A feasibility study for potential industrial and institutional application of the concept will also be underway in FY 1975.

In addition to the above projects, laboratory studies, other feasibility studies, systems analyses, etc. are underway in support of the development programs for atmospheric and pressurized bed boilers. A concept study for Project MIUS, a cooperative activity involving seven Federal agencies, has led to a specific program to develop one or more coal-fired powerplants located within a community to use residual or recycled energy for heating, air conditioning, and generating of electricity.

Need for Increase:

The FY 1976 request, on a cost basis, provides for $32,645,000, an increase of $11,964,000 over the FY 1975 level. Major increases include funding for (a) the start of the pressurized fluidized bed pilot plant program, (b) the start of the

atmospheric fluidized bed combustor program for industrial and institutional applications, (c) start of the design of a 200 MW atmospheric pressure fluidized-bed boiler, (d) participation in the cooperative and jointly funded MIUS project, and (e) support research and development for both the atmospheric and pressurized-bed boilers.

For many years to come the direct combustion of fuels will be the major source of electric power and process heat. Coal has had a dominant role in these energy areas. In recent years, however, environmental constraints have caused a decline in coal's share in the electric-utility and process-industry markets. Now, because of critical shortages in petroleum and natural gas, and the need to conserve our resources of these fuels, it is urgent that methods be developed to burn coal in an environmentally acceptable manner and with maximum thermal efficiency.

Based on the successful development of combustion systems being undertaken in this subprogram, combustion of coal can be substituted for much of the petroleum derived and gaseous fuels used for power generation and industrial heat, thereby reducing imports and releasing liquid and gaseous petroleum products for applications requiring their unique properties. Fluidized-bed boilers have been under development for several years. It has been demonstrated that all types of coal, including anthracite and char, can be burned in this boiler in an environmentally acceptable manner. The sulfur and nitrogen oxide stack emission has been found to be below the EPA limitiations for new stationary powerplants. Further research will be conducted at ERDA laboratories on studies to minimize ash fouling on boiler tubes and corrosion caused by the various types of indigenous coals.

Fluidized-bed plants lend themselves not only to utilities and to industrial and institutional application, but also to coal conversion processes in that they can utilize the char byproduct of coal conversion for increased plant efficiency at power generation sites, using fluidized-bed combustors, as well as allowing for a fully integrated self-sufficient type of operation.

a. Fluidized-Bed Boiler, Atmospheric. The technology involved in the atmospheric pressure system is the more advanced at the present time. Coal sized at minus 1/4 inch is burned in a bed of inert ash and limestone or dolomite, which reacts with sulfur dioxide (SO_2) to form a solid sulfate material. The sulfate can be disposed of as a waste, or as an alternate, it can be regenerated to produce reuseable sorbent, concentrated SO_2 or sulfuric acid. Industrial uses of the sulfated limestone are also possible. This program has designed, is constructing, and will test an atmospheric 30 MW multi-cell fluidized-bed boiler with steam capacity at 300,000 pounds per hour, as a low-pollutant method of burning coals of high sulfur or corrosive qualities. The design of a 200 MW fluidized-bed boiler will move the program to a decision point as to feasibility of its construction and application to steam generation for modern utility powerplant operation.

   (1) Fluidized-Bed Boiler, 30 MW. A small boiler has been successfully operated at furnace temperature of about 1,500° F for up to 7,000 hours. This program will design, construct and test an atmospheric pressure multi-cell fluidized-bed boiler, the steam capacity being 300,000 pounds per hour, as a low pollution method of burning coals of high sulfur or corrosive qualities. The boiler is now being constructed and will be installed at the Monongahela Power Company plant at Rivesville, West Virginia. The plant is scheduled to be operational by April 1976. The

boiler will be equipped with a precipitator for removal of particulates from the stack gas.

(2) Fluidized-Bed Boiler, 200 MW. Funds will be made available for the design and award of a contract for the fabrication of a 200 MW atmospheric pressure fluidized-bed boiler to be constructed and tested on an existing utility site. The program will initiate the final design and will move toward a decision point for continuation and construction of the 200 MW boiler.

(3) Industrial Applications. This project will consist of a feasibility study and preliminary commercial scale boiler designs for plants employing the atmospheric fluidized-bed concept. High pressure and low pressure steam generation and air and industrial product heaters will be studied to determine the practicality and economics of using these applications of atmospheric fluidized-beds in industry to burn coal, in lieu of oil and gas, for industrial heat. Funds for this program will initiate preliminary evaluation and a conceptual design for the application of this concept for industry's needs.

b. Pressurized Systems. Pressurization of the fluidized-bed is a means of potentially effecting an appreciable increase in power generation efficiency and a commensurate reduction in the cost of power generation. The basic technology is that the coal and bed material must be injected into a pressurized combustion chamber and the process converted to a combined cycle, gas turbine-steam turbine system. The pressurized system further reduces the size of the combustor and, thus, the capital cost. The use of combined cycle systems increases the efficiency of the overall plant (coal to power) from 37 percent for the best atmospheric boilers using high-sulfur coal in an environmentally acceptable manner to 41 percent. There is a future potential of attaining additional increases in efficiency by utilizing the pressurized fluidized-bed boiler and gas turbine power recovery system. Objectives for the pressurized program are similar to the atmospheric, except that developmental problems are greater and more complex, and the first commercial units would be at least two years further down the road. Limited tests of American coals were performed in a 5-6 atmospheric pressure test unit at Leatherhead, England, and have shown that this approach is feasibile from a technological standpoint. Additional work is required and is being performed in order to accomplish the clean-up of the hot gases produced from pressurized fluidized-bed combustion to produce the high turbine reliability and long life required for practical power generation application, and for control of atmospheric emissions.

(1) Pressurized Adiabatic Fluidized-Bed Combustion (1.8 MW Process Development Unit). This project is for the continued experimentation with a pressurized fluidized-bed power generation unit. This unit includes a pressurized fluidized-bed combustor coupled with a one megawatt gas turbine. This project is now providing substantial design, materials, environmental, and other data. This process has potential for both utility and industrial powerplants and for total energy systems applications.

(2) Fluidized-Bed Combined Cycle Pilot Plant (20-60 MW). This project includes the design, construction, and operation of a 20 to 60 megawatt coal-fired pressurized fluidized-bed combined cycle pilot plant. This

prototype module is to be designed as a basic element of central station powerplant, so that operating, engineering and economic data can be fully evaluated.

(3) Large Scale Component Test Plant. Based on previously evaluated data, a detailed design of a test facility capable of testing all components of a complete pressurized fluidized-bed combustion system will be prepared. This project will permit a much greater refinement of data necessary for full commercialization.

(4) Modular Integrated Utilities System (MIUS). Project MIUS is authorized by the Housing and Urban Development Act of 1970 (P. L. 91-609). The program is being conducted as a cooperative study by HUD, NASA, DOD, National Bureau of Standards, HEW, as well as ERDA, at an approximate program cost of $10,000,000, to demonstrate combined processing plants within a community to use residual or recycled energy for heating, air conditioning, and generation of electricity. A small coal-fired fluid bed combined cycle powerplant will be developed as a demonstration for this project.

c. Support Studies and Engineering Evaluations.

(1) Component Development Program. Funds for this program in FY 1976 will initiate the development and utilization of specific boiler and accessory equipment, or their fabrication in the event that none exist, for both atmospheric and pressurized bed systems. This will include coal processing, handling and transporting equipment, combustion chambers, heat exchangers, gas clean-up systems, and gas turbines for the fluidized-bed and the combined cycle systems.

(2) Improved Coal Combustion. Very little is known concerning the emission characteristics, slagging and corrosion characteristics of the synthetic fuels now being developed. Such data is essential, however, for design of new combustors and boilers for such fuels, as well as combustion improvement for existing fossil fuels. Present boiler operational practices result in significant deposits of ash and slag on boiler tubes, which cause a reduction in heat transfer and corrosion. ERDA laboratory facilities will be utilized to conduct and process these very necessary studies on restriction of fireside tube fouling and the combustive characteristics of char, low-Btu gas, and synthetic liquids.

(3) Engineering Evaluations. Feasibility studies, system analyses, etc. are necessary to develop and experimentally establish an analytical model of of the elemental processes of fluidized-bed combustion in boilers so as to establish a better understanding of the fundamental processes, including their use for advanced conversion systems. Back-up flexible engineering test equipment is being built to ensure rapid resolution of any problem encountered in the pilot plant development projects. Program planning and engineering and economic evaluation of complete systems are being performed so that the development program leads to equipment and systems which can be operated by users and can be fabricated practically by industry. New technologies in direct combustion and gas cleanup are being investigated.

6. Advanced Research and Supporting Technology + $17,281 + 2 Positions

Objectives:

The Advanced Research and Supporting Technology subprogram serves as the central research and systems studies area for all elements of fossil energy. The major objectives of this subprogram are:

a. to provide support technology to assure reliable and efficient process operations;

b. to initiate development of new and improved extraction, conversion and utilization processes;

c. to assure an adequate supply of trained technical personnel; and

d. to study the development of fossil energy processes in the context of near, mid and long-term national needs and priorities and to assure that economic, social and environmental constraints are satisfied.

Accomplishments:

During 1975 projects have been and are being initiated or continued in the areas of advanced process research and engineering, basic coal science, and supporting technology such as advanced gas-liquid-solid separation processes. A major new initiative during FY 1975 was a materials engineering program on various coal utilization processes. Research, especially for synthetic fuels from coal, is underway in government, institutional, and industrial laboratories. In addition, a more aggressive program relating to basic coal science and engineering at various universities was undertaken to improve and increase our knowledge of the chemical and physical phenomenology associated with the utilization of coal and its conversion to clean gaseous and liquid fuels. The university research effort is expanding rapidly. About forty universities are now involved.

Need for Increase:

The increase in FY 1976, on a cost basis, for this subprogram is $17,281,000 over the FY 1975 level. These increased funds will permit (a) intensive studies on the chemical and physical structure of the coal molecule that will yield important clues on reaction mechanisms, how sulfur and nitrogen can be removed economically and efficiently, (b) the development of new and selective catalysts to accelerate coal conversion, (c) fundamental and exploratory research on the production from coal of hydrogen and methanol, on the solubilization of coal by reductive alkylation, and (d) systems studies to assist decision making.

New initiatives for FY 1976 involve bench-scale studies on advanced processes for clean gaseous and liquid fuels, materials engineering studies on gasification processes, advanced gas-liquid-solid separations, synthetic fuel characterization and evaluation, advanced waste disposal process studies, and additional studies in basic coal science and engineering. These projects are in part an outgrowth of studies initiated during FY 1975, in addition to projects stemming from requests for proposals based on defined research and development needs and priorities.

This subprogram is divided into four major areas: advanced coal conversion processes, advanced direct coal utilization processes, advanced supporting research, and systems studies. The first area involves exploratory process research and engineering through early process development. The second area is concerned primarily with advanced technology pertaining to coal preparation and beneficiation, combustion and energy conversion, and removal of sulfur dioxide and particulate matter from hot combustion gases. The third area, advanced supporting research, involves research on materials, environmental problems, and studies in basic coal science. The fourth area, systems studies, includes projects to develop an information base for environmental, economic transportation and other components which are integral to decisions on the pace, market targets and methods to implement improved processes.

a. Coal Conversion Processes.

(1) Gaseous Fuels. The major emphasis here will be on (a) development of more efficient processes for conversion of different types of coal and char to synthesis gas, (b) synthetic natural gas (SNG) at pipeline pressures via fewer unit operations, (c) more efficient processes for hydrogen production from water (employing char or a carbonaceous residue as the ultimate reducing agent), or by cracking or steam-reforming of heavy ends of distillates from coal, and (d) materials engineering studies on gasifiers and their components to improve the reliability of their performance at the desired operating conditions and to reduce investment costs. The specific projects for FY 1976 are:

Bench scale studies on advanced processes for SNG, synthesis gas, hydrogen, and for intermediate to low-Btu gas;

Bench scale study of an advanced process for catalytic methanation;

Gasification process equipment research and development;

Exploratory research on new and innovative processes for SNG, synthesis gas, and for hydrogen;

Bench scale studies on advanced processes for separating hydrogen, methane and acid gases.

Materials engineering studies on gasifiers.

Supporting studies on fluidization phenomena, catalyst research and development for steam-reforming processes and for catalytic methanation and selected basic research and engineering studies at various universities.

(2) Liquid Fuels. The major emphasis will be in (1) development of an advanced process (and unit operations) for converting coal directly to clean distillate fuels, including gasoline, (2) development of an improved and more efficient hydrocracking catalyst for conversion of coal and coal oil extract in a fixed-bed or fluidized bed to distillate fuels, (3) development of an advanced reactor design and hydro-desulfurization catalyst for conversion of coal, solvent refined coal, and coal oil extract to low-sulfur boiler fuels, (4) improved and advanced technology for separating ash and particulate matter from hot coal oil, and (5) development of a more efficient and economical

process for recovery and recycling hydrogen from the off-gas of hydroliquefaction processes. Specific projects are:

Process research and engineering on liquid-phase hydrocracking and gas-phase fluidized bed hydrocracking of coal to gasoline and distillate fuels.

Hydrocracking catalyst research for distillate fuels.

Specific new, innovative processes for distillate fuels and gasoline, viz, fluidized bed hydrocarbonization, non-catalytic fast-fluidized bed hydrocracking, extractive-cracking, and catalytic condensation of methanol to gasoline.

Catalyst reactor design and evaluation for conversion of coal to low-sulfur liquid boiler fuel.

Catalyst research and development for hydrodesulfurization, hydrodenitrification, and hydrodeoxygenation of coal oil extract produced in coal liquefaction pilot plants.

Bench scale studies on advanced processes for separating ash and particulate matter from hot coal oil, and hydrogen from hydrogenation off-gases.

Materials and equipment research studies on hydroliquefaction processes.

(3) Chemicals and Derived Synthetic Fuels. The major emphasis will be in the development of advanced separation technology for recovery and/or upgrading of chemical byproducts obtained in coal gasification and liquefaction plants to petrochemical feedstocks which are less readily and less economically derived from petroleum. The latter constitutes premium products which in many cases can markedly improve the economics of the coal-to-clean synthetic fuel process, and hence facilitate its early commercialization. In addition, studies will be continued to define more attractive product mixes from synthesis gas, and from the HYGAS and Synthane processes, such as methanol plus synthetic natural gas (SNG) and/or Fischer-Tropsch hydrocarbons, rather than SNG or methanol directly. Specific projects for FY 1976 funding include:

Aromatic hydrocarbon feedstocks. Advanced separation processes for recovering chemical byproducts from carbonaceous waste streams; advanced research and development on processes for refining solvent refined coal and coal oil extracts to aromatic and selected liquid fuels such as jet fuels.

Synthetic fuel evaluation in selected applications--automotive, jet aircraft engines.

Hydrocarbon feedstocks. Bench scale studies of new and improved Fischer-Tropsch process for conversion of synthesis gas to aliphatic hydrocarbon mixes in the gas and gasoline boiling range.

Methanol and higher alcohol or others. Technological, economic and market analysis; process design innovations and definition of research and development needs.

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b. Direct Utilization Processes. The major thrust would be in the development of improved materials and components in direct coal utilization processes. An additional area of major importance is hot-gas cleanup to permit the use of coal-derived gas in gas turbine topping cycles. Coal beneficiation processes will continue to be sought to enable the direct use of high sulfur coals.

(1) Extraction, Beneficiation, and Conveyance of Coal. Specific projects include:

Assessment and definition of extraction processes best suited for various coal conversion refineries; studies on waste disposal problems and utilization of fines.

Studies on coal beneficiation processes and development of advanced technology.

Studies to better understand the chemical, physical and rheological properties of coal/oil slurries and their utilization.

Coal petrography, analysis, and correlation with reactivity.

(2) Clean Combustion Processes. Specific projects include: research and development of advanced combustion processes and material engineering studies, basic studies in combustion aimed at minimizing nitrogen oxides and sulfur oxides formation, while maximizing efficiency of overall process.

(3) Hot Gas Cleanup. A project on research and development of advanced processes for removal of sulfur dioxide and particulate matter from hot gases for use in gas turbines will be conducted.

c. Supporting Research. The major emphasis will be in the area of materials research and development on problems common to several coal-to-synthetic fuel and energy conversion processes. In addition, the effort on environmental assessment to enable the coal conversion plants to be environmentally acceptable, and on basic coal science and engineering to facilitate the process research and development studies, will be accelerated. Specific projects for FY 1976 are:

(1) Materials Research.

Construction and operation of a materials test facility to determine cause of failures, e.g., whether the latter are indeed due to materials problems, inadequate equipment design, or both.

Research and development pertaining to corrosion, erosion, abrasion, and other forms of materials deterioration as a result of coal handling, preparation, and feed injection. Development of improved valve materials to fabricate hardware and shock resistant materials for valve components.

Development of improved ceramics to substantially improve the ceramic liners now being used in the high temperature gasifier of coal conversion plants.

Development of composite fabrication technology with respect to joining methods.

Research and development of improved materials for advanced power systems.

(2) Environmental Studies.

Assessment of potential environmental problems associated with the operation of different coal conversion plants; assessment of the adequacy of existing technology and methods for handling these problems including various effluent streams.

Testing and evaluation of proposed methods based on state-of-the-art technology, and recovery of chemical byproducts.

Research and development of advanced waste handling technology and processes for selected coal utilization unit operations.

(3) Physical-Chemical Measurements.

Determination of the thermodynamics of selected reactions and processes.

Determination of the kinetics of key reactions in certain processes.

Studies on the chemical and physical structure of coal that will yield clues on reaction mechanisms of different coal conversion processes and how they may be improved.

Development of new analytical techniques for coal utilization processes with emphasis on the detection and measurement of toxic trace elements in coal and in waste streams.

d. Systems Studies. System studies are an essential complement to the research and development program to (1) evaluate development of coal processes in the context of near, mid and long-term national needs and priorities, (2) assure that economic, social, and environmental constraints are satisfied, and (3) determine the best uses for coal and conversion processes. In addition, the development and maintenance of a dynamic planning framework are essential to insure the proper meshing of the large number of separate programs to achieve the end objective on schedule and within budgetary limits.

Emphasis will be placed on developing an information base for environmental, water resources, economic, byproduct, manpower, materials, equipment, capital, and transportation components of a coal conversion system, and an overall approach to synthesizing these components into models to guide decision-making for R&D options and accelerated development and utilization of coal resources. A draft Environmental Impact Statement for the coal conversion research and development program will be completed. Studies will be made to evaluate the following:

Product and non-product outputs of first and second generation demonstration and commercial coal conversion plants;

Potentials for recycling and possible uses for byproducts;

Environmental impacts of a coal conversion industry to determine possible changes to regional ecology;

Water requirements for coal extraction, transportation, processing and reclamation;

Acceptability and suitability of coal products and byproducts in various economic sectors and geographic areas;

Operating and investment costs of all processes at the pilot or demonstration plant level;

Plant economics of multi-process coal conversion complexes;

Manpower requirements for coal conversion plants;

Raw material, intermediate and finished goods needed for commercial plant construction and operation;

Capital requirements, sources of capital and cash flows of probable industries investing in coal refineries;

Optimization of process steps to achieve best utilization of coal at lowest product cost as a function of coal type and geographic location.

The transportation economics of the coal industry will be further developed to measure capacities and operating costs of existing transportation facilities and investment costs for expansion. New transport technologies, such as gaseous and liquid coal slurries and energy pipelines, will be evaluated.

Several models will be developed to synthesize the diverse component parts of the coal energy system. A materials-balance approach will look at each coal process to estimate its socio-economic-environmental effects and its requirements for development. A simulation model will be constructed to test policy alternatives of coal research and development. An improved input-output model will be developed to evaluate effects of commercializing various coal conversion technologies. Outputs from different systems approaches will be used to delineate tradeoffs and cost/benefit ratios of a range of R&D options, as well as determine which approach should be implemented on a large scale.

Methods of technology transfer and dissemination of R&D efforts will continue to be developed. Emphasis will be placed on developing a national data base for coal process commercialization.

7. Demonstration Plants + $ 18,100 No Positions

Objectives:

The overall objective of the Demonstration Plant subprogram is to demonstrate with commercial size equipment the technical and operational feasibility, reliability and economics of selected liquefaction, high-Btu gas, and low-Btu gas coal conversion processes prior to 1982. Rapid commercialization of processes for removing sulfur from coal can be expected to have early impact on the national energy problem by providing acceptable alternatives to oil and gas. In addition these processes can be used as a first step toward the production of a synthetic oil. The hydrogenation of coal produces byproduct gas as well, which can be reformed to yield a substitute natural gas (SNG). Future commercial plants which are anticipated from planned demonstration facilities can be expected to produce clean liquids and gases as co-products with further potential relief for the national energy situation.

Our definition of a demonstration plant is that size from which scaleup to commercial operation can be made with normal technical risk. The demonstration plant might not be an economically viable commercial operation. Commercial consideration may dictate a still higher capacity and will usually require a number of demonstration scale plants in parallel.

Accomplishments:

In July 1974, a request for proposal (RFP) was issued for a Clean Boiler Fuel demonstration plant. On January 17, 1975, the Office of Coal Research awarded a contract to Coalcon for the phased design, construction and operation of a 2,600 tons per day demonstration plant using a hydrocarbonization process for producing 3,900 barrels per day of liquid product, and 22 million cubic feet daily of pipeline quality gas. The first two phases of the project, conceptual design and detailed design, will provide a continuing opportunity to further evaluate the optimum plant configuration to be constructed. This plant will fulfill a near term objective of the coal program to provide a fuel substitute from coal for a portion of higher grade oil and gas used in the generation of electricity and in industrial heating processes.

This plant is the first demonstration plant Fossil Energy has undertaken. It is the last step before commercialization and is the result of work through the pilot plant stage. While the design and engineering phase is being funded by the Government, the industrial partner will share the construction and operating costs on a 50-50 basis. The plant schedule is being accelerated, and we hope to have the plant begin operations in FY 1980.

Funds in the amount of $24,000,000 were appropriated in previous fiscal years under the Liquefaction subprogram to be used for the design of prototype plants. These funds will be used during the current fiscal year to initiate efforts for the Clean Boiler Fuel demonstration plant as well as research and development for other planned demonstration scale facilities.

Need for Increase:

The FY 1976 request provides for $18,100,000, on a cost basis, for the subprogram. This initial request for Demonstration Plants will be used as follows: (a) $4,900,000 for the continued conceptual design efforts for the Clean Boiler

Fuel plant, (b) $4,900,000 for research, investigations and conceptual design of a High-Btu Pipeline Gas demonstration plant, (c) $4,900,000 for research, investigations and conceptual design of a Low-Btu Fuel Gas demonstration plant, and (d) $3,400,000 for required technical and engineering support for these projects.

In addition to the above amounts, $20,000,000 is included for FY 1976 under the Plant and Capital Equipment appropriation. The amount is proposed for preliminary and final design and procurement of long-lead-time equipment for the Clean Boiler Fuel demonstration plant.

In addition to the direct Federal funds, the Administration anticipates significant cost sharing with industry for these projects. The present standard for cooperative Government-industry joint funding assumes 50-50 sharing for the demonstration plants.

a. Clean Boiler Fuel. Work already performed clearly shows that high-sulfur coal can be converted to a low-sulfur boiler fuel. The planned demonstration is expected to be on the order of 2,600 tons of coal per day and will produce sufficient fuel for a 125 to 175 megawatt powerplant.

   Two contracts, one of which was recently executed, are to be awarded based on processes which yield a crude liquid that can be further hydrogenated and a gas that will be upgraded to pipeline quality. The first phase of these contracts provides for a detailed engineering evaluation of the conceptual full-scale process. The conceptual design will be the basis for a preliminary design of the demonstration plant. One contractor's process selected as clearly superior to the others will be authorized for completion of detailed engineering which will serve as the basis for preparation of a bid package for construction of the demonstration plant. This will allow the preparation of firm estimates for construction and operating costs for the plant.

   The amounts shown under this appropriation for FY 1976 are only for research and development and conceptual design. Obligations of $10,000,000, resulting in costs of $4,900,000, are included for these purposes for the budget year. Preliminary and final design and construction amounts, estimated at $20,000,000 for FY 1976, are included under the Plant and Capital Equipment appropriation.

b. High-Btu Pipeline Gas. The "state-of-the-art" relative to the production of high-Btu gas has advanced to the stage where several promising processes have reached the pilot plant stage of development. The successful development of these processes could lead to the commercial production of pipeline quality gas from coal in sufficient quantities to alleviate the growing critical shortages of natural gas and lessen the dependency of the United States on foreign producers of natural gas.

   The first phase of this project will include conceptual design of all features of the projected plant. Alternate gasification equipment and equipment arrangement will be studied, and using the results of these studies, a final configuration and arrangement will be chosen. Alternate methods of feeding the gasifier will be included in this preliminary design phase to adequately test more than one concept for use in ultimate plants. Several contracts are proposed. From these contracts the ultimate plant will be chosen. The finished document will provide for requesting proposals to complete the

design, build the plant, and operate it. The requested FY 1976 funding of $4,900,000, on a cost basis, will provide for the conceptual design work required. Subsequently, based on the results of the 1976 efforts, a decision on the next stages of development will be made.

The second phase (FY 1977 and later) involves construction of the demonstration plant at a location chosen to insure ready deliverability of equipment and a broad range of available coals. The construction will be phased for the earliest possible operation of the gasifier scheduled over the projected operating life of the plant. A significant feature of the design will be the ability to produce a wide range of products.

c. Low-Btu Fuel Gas. A number of commercial companies are engaged in the preliminary design of full-scale gasification equipment for the integration with conventional and advanced power systems. It is proposed to undertake several engineering design contracts to provide a competitive evaluation of the most promising alternatives for final selection.

The first phase of this project will be to award several contracts to evaluate these designs. The best system will be chosen for detailed testing at an existing Government or industrial site. The FY 1976 request of $4,900,000, on a cost basis, provides funding for the necessary evaluation of the alternative designs. Subsequently, a decision on later stages of development will be made.

The second phase will be to construct a demonstration gasification plant at a location that will be convenient to an electrical powerplant where integration of the low-Btu gasification plant with conventional and advanced power generation systems can be accomplished. Both air-blown and oxygen enriched gasification will be studied to determine production costs for alternate power systems. The feasibility of using slagging, as well as non-slagging, coal will be tested. Optimum procedures for cleanup and disposal of ash and/or slag will be determined.

d. Technical Support. To support this large-scale effort, the Fossil Energy staff will be augmented by systems engineering and technical support contracts. These specialized services are essential to assist in detailed evaluation of specific equipment items needed in any or all of the projects. In addition, each major demonstration plant project manager will be provided with in-house support and highly skilled technical assistance from the systems contractors to manage, control, and monitor these major project efforts through the design, construction, and operational phases. Additional assistance during the design and construction phases will be provided by the Corps of Engineers and the Bureau of Reclamation who will supply specialists in the field to serve as ERDA representatives.

FOSSIL ENERGY DEVELOPMENT

Appropriation - Operating Expenses

Program/Subprogram	FY 1976 Estimate Costs	FY 1976 Estimate Budget Authority	Estimate July 1 - Sept. 30, 1976 Costs	Estimate July 1 - Sept. 30, 1976 Budget Authority
COAL PROGRAM				
1. Liquefaction	$ 96,897	$ 97,562	$ 16,000	$ 28,750
2. High-Btu Gasification	42,838	63,364	8,700	10,500
3. Low-Btu Gasification	51,671	45,389	6,500	11,400
4. Advanced Power Systems	5,261	6,601	1,300	2,500
5. Direct Combustion	32,645	38,096	5,100	14,900
6. Advanced Research and Supporting Technology	32,061	35,393	4,600	8,850
7. Demonstration Plants	18,100	37,000	4,100	9,000
Total Coal Program	$279,473	$323,405	$ 46,300	$ 85,900

Justification for Transition Period
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

Coal Program	$ 46,300
1. Liquefaction	16,000

An estimate of $16,000,000 is requested for operating costs for the period July 1, 1976 - September 30, 1976. The cost estimate was computed on the basis of the required obligational program of $28,750,000 necessary to continue projects at the minimum levels essential to maintain the goals and established timetables for this subprogram. Construction for the Ebullated-Bed (H-Coal) pilot plant will be started in late FY 1976 and sufficient funding must be provided during the transition period to permit the construction timetable to be met. In addition, other pilot plants such as Synthoil, Chemicals from Coal and Clean Coke will be in various stages of design requiring appropriate incremental funding. Other projects will be continued at normal requirements consistent with FY 1976 funding.

2. High-Btu Gasification	8,700

An estimate of $8,700,000 is requested for the transition period. The cost estimate was based on a required obligational program of $10,500,000 for this period. In addition to continued operation of five pilot plants, construction for the Hydrane process development unit will begin in late FY 1976. Sufficient funding must be provided to permit the construction timetable to be met.

3. Low-Btu Gasification	6,500

An estimate of $6,500,000 is requested for the period July 1, 1976 - September 30, 1976. This cost estimate is based on the necessary obligations of $11,400,000 planned for the period. Final design efforts for the Fixed Bed Atmospheric pilot plant and the continued construction of the Fluid Bed Pressurized pilot plant must be incrementally funded. In addition, continued field pilot tests for underground gasification at the Eastern sites as well as evaluation of Western locales will be made. Design for an underground gasification demonstration unit will be undertaken in FY 1976 with a decision to contruct in the transition period.

4. Advanced Power Systems	1,300

An estimate of $1,300,000 is requested for the transition period. This cost estimate is based on a requested obligational level of $2,500,000 for this period. The cost estimate provides for normal, continuing operations based on FY 1976 levels for the Open Gas Turbine system, Alkali Metal Turbine Cycle project, as well as essential support studies and engineering evaluations.

5. Direct Combustion	5,100

An estimate of $5,100,000 on a cost basis, is requested for the period July 1, 1976 - September 30, 1976. This estimate was computed on the basis of the required obligational level of $14,900,000 for this period. The final design for the 200 megawatt Fluidized Bed Boiler and preliminary design

for the 60 megawatt Combined Cycle pilot plant will require incremental funding during the transition period. Other projects, support studies and engineering evaluations will be continued at normal rates based on FY 1976 levels.

6. Advanced Research and Supporting Technology ..... $ 4,600

A cost estimate of $4,600,000 is requested for the transition period. This estimate, based on a requested obligational program of $8,850,000 which is 25 percent of the FY 1976 obligation level, is necessary to continue the materials research, environmental research, basic physical-chemical studies, systems studies and analytical methods and analysis essential to support the diverse fossil energy projects. This important ongoing support research will continue in ERDA's Energy Research Centers and National Laboratories, in universities and contractor locations.

7. Demonstration Plants 4,100

Costs estimated at $4,100,000 are requested for the transition period. The Clean Boiler Fuel demonstration plant will be in the final design phases during this period. In addition, conceptual design for the High-Btu Pipeline Gas and Low-Btu Fuel Gas demonstration plants will be initiated in FY 1976 and continue through the transition period. Appropriate incremental funding will be necessary for these projects. Ongoing technical support for these projects must also be provided. The requested obligational level for the transition period is $9,000,000.

FOSSIL ENERGY DEVELOPMENT

COAL PROGRAM - PLANT AND CAPITAL EQUIPMENT OBLIGATIONS

This table and the following justification for the plant and capital equipment appropriation will be on an obligation basis.

	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
A. Obligations for Construction Projects	$ 0	$13,000	$20,000	$+7,000
B. Obligations for Capital Equipment Not Related to Construction	0	150	0	- 150
Total Obligations for Plant and Capital Equipment	$ 0	$13,150	$20,000	$+6,850

Obligations for the Coal Program for FY 1976 are estimated at $20,000,000 of which:

a. $20,000,000 is for the construction project listed in Section A below, (1) requested for authorization in the proposed Authorization Act, or (2) was previously authorized and for which a request for appropriation is being made in FY 1976.

SECTION A - Obligations for Construction Projects

The project comprising Section A, which is requested for authorization or which was previously authorized and for which a request for appropriation is being made, is:

(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

COAL PROGRAM: PLANT AND CAPITAL EQUIPMENT OBLIGATIONS - continued

Project No.	Title	Total Estimated Cost	Funded Thru FY 1975	Estimated Obligations FY 1976	Estimated Obligations Transition Period	Future Funding Required to Complete Project
76-1-a	Clean boiler fuel demonstration plant (A-E and long-lead procurement)	$28,000	$ 1/	$20,000	$ 8,000	$ 1/

1/ Estimated total cost of capitalized project items is about $166,000,000. Engineering, design and inspection ($16,000,000) will be all Federal Government costs. Construction costs ($150,000,000) are anticipated to be shared, 50 percent industry and 50 percent Government. The estimated Federal share of the total cost of the project including design is $91,000,000 and the industry share is $75,000,000. After deducting $13,000,000 appropriated to the Office of Coal Research through FY 1975 and the FY 1976 and Transition Period estimates, the estimated Federal share to complete this project is $50,000,000, not including escalation.

(Dollars in thousands, except whole dollars in narrative material)

EXPLANATION OF PROJECT

		Estimate FY 1976
Project 76-1-a	Clean boiler fuel demonstration plant (A-E and long-lead procurement)	$20,000

This project provides for a chemical process plant to convert high sulfur coal to a clean liquid fuel. The plant is expected to process 100 tons of coal per hour to yield about 4,000 barrels per day of "oil" and 22 million cubic feet of pipeline quality gas. The "oil" expected to be produced will be sufficient to fuel a 125-175 megawatt power plant.

The Clean Boiler Fuel Demonstration Plant is intended to accelerate the commercialization of economically attractive processes for the conversion of coal to clean, environmentally acceptable fuels at high efficiency. Work will be undertaken consistent with the progress attained by both the private sector and the Government in data gathering operational phases of pilot plants. This demonstration plant will be capable of converting typical high-sulfur Eastern bituminous coals to environmentally satisfactory low-sulfur, low-ash, boiler fuel. The plant will demonstrate both the technical and economic feasibility of processes to remove sulfur from coal. The products produced by the plant will be tested using commercial equipment.

A comprehensive "Request for Proposal" to design, construct, and operate a demonstration plant to produce a low-sulfur boiler fuel (a liquid at combustion conditions) was issued in 1974. Responses were received by three proposers. A contract was awarded on January 17, 1975 to the Coalcon Company to begin the conceptual design phases of the demonstration facility. A second award is planned. The first phases of the contract performance will consist of detailed engineering evaluations of the particular processes proposed by the two contractors. Detailed engineering and preparation of a bid package for construction of the demonstration plant will follow. This will provide a firm estimate for construction and operation of the plant and will serve to fix total program costs as closely as possible. Plant construction is planned to begin late in FY 1977 with expected completion late in FY 1979.

The scope of the current project is limited to A-E services and selected long-lead procurement.

In addition, approximately $22,000,000 of research and development costs in the operating expense appropriation ($7,000,000 in FY 1975, $10,000,000 in FY 1976, and $5,000,000 in FY 1977) are associated with design and construction of this project. Upon completion of construction of the plant, annual operating costs are estimated at $15,000,000. It is anticipated these operating costs will be shared 50-50 by industry and Government.

Details of Cost Estimates

The estimated cost for A-E services and long-lead procurement is $20,000,000 ($10,000,000 for A-E services and $10,000,000 for procurement) in FY 1976 and $8,000,000 ($3,000,000 for A-E and $5,000,000 for procurement) in the Transition Period. The preliminary estimate of the total project cost for the demonstration plant is about $166,000,000, consisting of approximately $16,000,000 for A-E design and inspection and $150,000,000 for construction. This estimate does not include escalation and is based on current dollars. Included within the above total project cost of $166,000,000 is $13,000,000 appropriated through FY 1975

to the Office of Coal Research ($3,000,000 for design and $10,000,000 for long-lead procurement).

The design and inspection costs for this project will be fully borne by the Government. Construction costs are anticipated to be shared 50 percent by industry and 50 percent by the Government. The Federal Government's share of the total project, including design, is estimated at $91,000,000 and the industry share is $75,000,000. After deducting funds available through FY 1975 and the requested FY 1976 and Transition Period estimates, the estimated Federal share to complete the project is $50,000,000.

	FY 1976 Estimate Budget Authority	Estimate July 1 - September 30, 1976 Budget Authority
Coal Program		
Demonstration Plants	$20,000	$ 8,000

Justification for Transition Period
Appropriation - Plant and Capital Equipment
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

	$ 8,000
Coal Program	
Demonstration Plants	8,000

The estimate for the period July 1, 1976 - September 30, 1976 is $8,000,000 for the Demonstration Plants subprogram. During FY 1976 the preliminary and final design phases of the Clean Boiler Fuel demonstration plant will be underway. $3,000,000 is required to continue these design efforts during the transition period. In addition, procurement of long-lead-time equipment items which must be available and properly coordinated with the established construction schedule for the plant must be initiated. $5,000,000 is requested during the transition period for this essential action.

(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

PETROLEUM AND NATURAL GAS PROGRAM: OPERATING COSTS

ANALYSIS BY SUBPROGRAM

This table and the following justification for the operating expenses appropriation will be on a cost budget basis.

Page No.	Subprogram	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
FED/P-3	1. Gas and Oil Extraction	$ 6,695	$ 16,242	$ 22,065	+ $ 5,823
FED/P-5	2. Gas and Oil Utilization	1,182	1,025	1,582	+ 557
	Total Petroleum and Natural Gas	$ 7,877	$ 17,267	$ 23,647	+ $ 6,380

HIGHLIGHT EXPLANATION OF CHANGES
BY SUBPROGRAM
FY 1976

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
B. Petroleum and Natural Gas				
1. Gas and Oil Extraction				
+ $ 5,823	+ 1	$ 22,065	80	The cost increase results primarily from payments against obligations recorded in previous years. The planned obligations for FY 1976 will decrease by $1,440,000 over FY 1975 levels.
2. Gas and Oil Utilization				
+ 557	0	1,582	72	The cost increase includes payments for obligations recorded late in the current year. Planned obligations for FY 1976 will be at approximately the same level as in FY 1975.
+ $ 6,380	+ 1	$ 23,647	152	

Program/Subprogram	Requested Increase/Decrease Amount	Positions	Total Program Amount	Positions
Petroleum and Natural Gas				
1. Gas and Oil Extraction	+ $ 5,823	+ 1	$22,065	80
2. Gas and Oil Utilization	+ 557	0	1,582	72
Total Petroleum and Natural Gas	+ $ 6,380	+ 1	$23,647	152

Petroleum and natural gas will continue to be the nation's main energy source for many years. This program is directed toward increasing the production of oil and gas from both on-shore and off-shore areas by advanced extraction techniques and in improving the efficiency of petroleum use and reuse.

The program is designed to increase the supply of crude oil and natural gas by the development of technology to increase the recovery of crude oil and natural gas from both old and new sources, and the conservation of present supply by increasing the efficiency of utilization of recycling used oil. The components of this program are geared to respond to the need along these various paths.

Specific program changes in this program in FY 1976 are discussed in detail below.

1. Gas and Oil Extraction + $ 5,823 +1 Position

Objectives:

This subprogram has promise for significantly increasing the nation's supply of oil and gas in the near term. The purpose of this effort is to increase the rate at which oil can be produced from known formations and provide a scientific basis for future recovery efforts. Toward these ends ERDA is coordinating the following three-part effort:

Private firms are being solicited to conduct demonstration of recovery techniques under conditions designed to show the strength of the technique and to make public the design of the recovery system and the results obtained.

Cooperative projects are undertaken in which processes for recovery that were developed in the laboratory will be tested under field conditions.

A research program, heavily involving universities, is being conducted on projects relating to increasing petroleum recovery.

This subprogram emphasizes demonstrations of existing and improved secondary and tertiary oil techniques recovery rather than new refinery technology. Because industry has a broad base in refinery technology, it would be difficult for the Government to make substantial contributions in the refinery area.

Presently, the economics associated with advanced recovery projects are uncertain. It is probable that the oil industry would eventually implement competitive advanced recovery techniques. However, time is the critical element and is the reason that Government must take the development lead.

The natural gas stimulation projects are designed to stimulate the commercial production of natural gas from formations containing vast quantities of natural gas but having permeabilities so low that commercial production to date has not been feasible. Continuing experimental methods include massive hydraulic fracturing, combination of hydraulic and chemical explosive fracturing and fracturing wells deviated from normal to intersect natural fractures.

Need for Increase:

The FY 1976 increase for this subprogram, on a cost basis, is $5,823,000 over the FY 1975 level. The cost increase results primarily from payment against obligations recorded in previous fiscal years and provides for costs associated with new planned obligations to be recorded in FY 1976. However, the obligational program for FY 1976 will decrease by $1,440,000, primarily for the support research and development projects. Fluid injection and non-nuclear fracturing projects, on an obligational basis, remain at approximately FY 1975 levels.

Government and major oil company laboratories have maintained major research efforts in gas and oil extraction for the past 30 years. During the past decade, emphasis has shifted to enchanced recovery methods,as even using the best primary production methods will still leave in the ground a large amount of petroleum. The most rapid approach to increased domestic energy production is a direct addition to domestic production from well known reservoirs. Resources of 290 billion barrels of residual oil, most of which are on-shore, will remain after present conventional production operations are completed. In addition, there are approximately 600 trillion cubic feet of non-commercial natural gas in deep Rocky Mountain basins alone. These

resources are the target for enhanced recovery. Of this target, 40-60 billion barrels of tertiary oil and 300 trillion cubic feet of natural gas are recoverable by known, but unrefined, technology. Finally, more than 100 billion barrels of heavy oil and some 35 billion barrels of bitumen in tar-sand deposits are known to exist domestically. This, if recovered, would more than double the nation's proven reserves.

The demonstration of commercially effective and environmentally safe methods of recovering these vital energy resources is essential. Given time and incentive, the oil industry could develop commercial tertiary recovery techniques. This development would be evolutionary, requiring at least 10 to 15 years. Therefore, the Government must lead the way. It can do so best by sharing commercial demonstrations of known technology. The FY 1976 program includes contracts of this type at approximately the level negotiated in FY 1975. More than ten field demonstrations of enchanced recovery programs have been initiated in FY 1975 which will take three to four years to complete. Field projects have been initiated on micellar-polymer flooding, carbon dioxide injection, thermal recovery, heavy oil recovery, controlled waterflooding, in-situ recovery of tar-sands, massive hydraulic fracturing and chemical-explosive fracturing. All of these projects are in early stages of development and expenditures should expand to optimum levels in FY 1976.

The stimulation of natural gas from low-permeability formations through the use of nuclear explosives may also be important to the accelerated development of domestic energy resources. The Rio Blanco experiment, conducted in FY 1973, is the most recent experiment which requires further study. Several technical questions concerning Rio Blanco remain unanswered; therefore, the activity in the nuclear gas stimulation project in FY 1976 will be directed at further testing, analysis, and interpretation of the experiment. Continuing economic and technical assessments of nuclear gas stimulation technology will incorporate the experience gained from Rio Blanco.

Effectiveness of the Government-industry program depends on the results of repeated evaluation of state-of-the-technology, willingness of industry to commercialize new technology, and national needs. Such a coordinated program will intensify the petroleum industry's anticipated field tests and could lead to additional tertiary production approaching one million barrels per day in 1982 and four million barrels per day by 1990.

2. Gas and Oil Utilization + $ 557 No Positions

Objectives:

Domestic shortages and growing dependence on less secure, more costly foreign supplies make it increasingly necessary to improve efficiency in our utilization of energy. Research conducted under this subprogram will provide the advanced technology needed to develop complementary measures to increase the availability of petroleum and natural gas. Energy conservation by increased efficiency in the use of our fossil energy resources is an obvious method of extending our available energy supplies.

This subprogram includes two major areas of research. One area relates to the characterization and process improvement of petroleum residue, naturally occurring tars, and crude liquid fuels from oil shale and coal. The other area emphasizes efficiency in the utilization of transportation fuels. Each has two parallel support programs--a thorough testing of recommendations for demonstration, and a reference-data program, principally including operations in improving efficiency.

Need for Increase:

The cost increase for FY 1976 for this subprogram is $557,000 over the FY 1975 level. This increase in costs includes payments for previous obligations recorded and provides for costs associated with obligations planned for FY 1976. On an obligational basis this subprogram for FY 1976 will be approximately at the same level as in FY 1975.

Improved end-use of petroleum products and natural gas, and increased efficiency in processing are vital because of limited resources of these fossil fuels. Shifting to lower quality feedstock also is necessary; use of high grade crude oil as feedstock for products that could be produced from heavier, more asphaltic stock is a luxury that can no longer be maintained. The research proposed involves continuation and expansion studies of improved processing of heavy crude oils and asphalt; use of waste lubricating oil as a feedstock (recycling); automotive engine studies to permit use of lower quality gasoline and other fuels; and providing required fundamental data on physical, chemical, and thermodynamic properties of hydrocarbons and related products.

Attempts will be made to evaluate products of various other energy programs as substitutes for typical petroleum products. This program has been redirected to permit extended studies of the many "syncrudes" and "synthoils" that are being produced. Methods for refining and using "crude oils" from fossil fuel sources such as coal will be developed and evaluated. Several of the crude products of oil shale retorting or coal reforming may prove amenable to usual refinery processes. The refined products from such sources also may resemble traditional fuels to various extents. The characteristics of such products including their performance in automotive engines will be determined.

In addition, the resource base for petroleum products will be broadened by using various waste products, such as lubricating oils, as premium quality feedstock. Use of lower grade feedstock, including those of high sulfur and metal content, also will be investigated to further broaden the fossil fuel natural resource base.

The installation of emission controls in recent production models of automobiles has meant a marked increase in gasoline consumption per mile travelled. Research will be continued on the determination of the best combination of fuels and engine configurations to reduce or eliminate these shortcomings. Surveys of fuel use will be made to indicate need for shifting fuel types and to guide refinery runs. These surveys will also show the influx of new petroleum products as usage patterns change to accommodate them.

Analysis by Subprogram
FY 1976 Estimate and July 1 - September 30 Period
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

APPROPRIATION - OPERATING EXPENSES

	FY 1976 Estimate		Estimate July 1 - Sept. 30, 1976	
	Costs	Budget Authority	Costs	Budget Authority
Petroleum and Natural Gas Program				
1. Gas and Oil Extraction	$22,065	$24,929	$ 6,730	$ 6,430
2. Gas and Oil Utilization	1,582	1,797	500	450
Total Petroleum and Natural Gas ..	$23,647	$26,726	$ 7,230	$ 6,880

Justification for Transition Period
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

Petroleum and Natural Gas Program	$ 7,230
Gas and Oil Extraction	6,730

An estimate of $6,730,000 for operating costs is requested for the period July 1, 1976 - September 30, 1976. This cost estimate was computed on the basis of the requested obligational program of $6,430,000 for this period which is 25 percent of the FY 1976 level for obligations. In addition to costs associated with obligations recorded during the transition period, payments will be made against previously obligated balances. Fluid injection, non-nuclear fracturing and support research projects will be continued at approximately the same levels as in FY 1976. Significant projects include micellar and polymer flooding, carbon dioxide injection. improved waterflood recovery and thermal recovery methods for extraction.

Gas and Oil Utilization 500

Costs estimated at $500,000 are required for the transition period. This cost estimate was computed on the basis of the required obligational level of $450,000 for this period. Projects will be continued during the transitior period at a level consistent with the FY 1976 program. Significant projects include composition characteristics of engine performance and refining, waste oil recycling, fuel technology data, improved alternative engine systems, and improved asphalt utilization.

FY 1976 Budget Estimates
Appropriation - Plant and Capital Equipment
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

PETROLEUM AND NATURAL GAS PROGRAM - PLANT AND CAPITAL EQUIPMENT OBLIGATIONS

This table and the following justification for the plant and capital equipment appropriation will be on an obligation basis.

	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
A. Obligations for Construction Projects	$ 0	$ 0	$ 0	$ 0
B. Obligations for Capital Equipment Not Related to Construction	134	35	100	+ 65
Total Obligations for Plant and Capital Equipment	$ 134	$ 35	$ 100	$ + 65

Obligations for the Petroleum and Natural Gas Program for FY 1976 are estimated at $100,000 of which:

a. $100,000 is for Capital Equipment Not Related to Construction justified in Section B below, requested for authorization in the proposed Authorization Act.

SECTION B - Obligations for Capital Equipment Not Related to Construction

JUSTIFICATION

A. Petroleum and Natural Gas ..... $ 100

Capital equipment items to be purchased in FY 1976 for this program are primarily for replacement of existing simplified field equipment items that are either obsolete or are to be excessed due to wear. It is expected that replacement items will cost approximately $100,000.

Analysis by Subprogram
FY 1976 Estimate and July 1 - September 30 Period

FOSSIL ENERGY DEVELOPMENT

APPROPRIATION - PLANT AND CAPITAL EQUIPMENT

	FY 1976 Estimate Budget Authority	Estimate July 1 - September 30, 1976 Budget Authority
Petroleum and Natural Gas Program		
Gas and Oil Extraction	$ 100	$ 100

Justification for Transition Period
Appropriation - Plant and Capital Equipment
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

Petroleum and Natural Gas Program	$ 100
Gas and Oil Extraction.....	100

Capital equipment items to be purchased during the transition period are primarily for replacement of existing field equipment items that are either obsolete or are to be excessed due to wear. It is estimated that replacement items will cost $100,000.

Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

OIL SHALE PROGRAM: OPERATING COSTS

ANALYSIS BY SUBPROGRAM

This table and the following justification for the operating expenses appropriation will be on a cost budget basis.

Page No.	Subprogram	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
FED/O-3	1. In-Situ Processing	$ 2,026	$ 2,903	$ 7,034	+ $ 4,131
FED/O-5	2. Composition and Characterization	754	551	1,113	+ 562
	Total Oil Shale Program	$ 2,780	$ 3,454	$ 8,147	+ $ 4,693

HIGHLIGHT EXPLANATION OF CHANGES
BY SUBPROGRAM
FY 1976

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
C. Oil Shale				
1. In-situ Processing				
+ $ 4,131	+ 1	$ 7,034	42	The increase will provide for the initiation of design and preparatory work for a larger scale field test of oil shale production, and conceptual design of an above-ground pilot plant for shale gas production.
2. Composition and Characterization				
+ 562	0	1,113	29	The increase will be used primarily to support a minimal expansion of capability for the oil shale scientific information base, and for continued research on the hydrocracking of crude shale oil.
+ $ 4,693	+ 1	$ 8,147	71	

Program/Subprogram	Requested Increase/Decrease Amount	Positions	Total Program Amount	Positions
Oil Shale				
1. In-Situ Processing	+ $ 4,131	+ 1	$ 7,034	42
2. Composition and Characterization.....	+ 562	0	1,113	29
Total Oil Shale	+ $ 4,693	+ 1	$ 8,147	71

Oil shales of the Green River Formation in Colorado, Utah, and Wyoming constitute the world's largest known hydrocarbon deposit. This deposit represents some 1.8 trillion barrels equivalent of in-place shale oil, including approximately 600 billion barrels represented by higher quality shales having an assay value of 25 gallons or more per ton. Despite its immensity, this resource has yet to be used productively.

Economic considerations and lack of Government policy are among the factors that have, in the past, inhibited commercial operations. Each of these barriers have been largely overcome, and commercial shale oil production is anticipated in this decade.

Two major options are being considered for oil shale development: (1) mining followed by surface processing of the oil shale, and (2) in-situ (in place) processing. Of the two options, only the mining-surface processing approach is believed to have advanced to the point where it is possible to scaleup to com-

mercial operations in this decade. In situ processing is in an experimental phase, and commercial application is not expected prior to 1980.

Specific program changes in this program in FY 1976 are discussed in detail below.

1. In Situ Processing + $4,131 + 1 Position

Objectives:

One specific objective of this subprogram is to advance the technology for in-situ (in-place) production of shale oil to the point of commercial feasibility by the early 1980's. This will require a material expansion of ongoing in situ retorting investigations over the next several years, to include four "pilot" field tests covering one to ten acres and a final demonstration on a 50-acre site.

Design of a 50-acre demonstration on a "best technology" basis is expected to be feasible by FY 1980, followed by operation beginning the middle of the following year. Industry cost sharing on the order of 50 percent should be obtained for the demonstration.

In addition, this subprogram includes an in-situ gas production project. Objectives of this project are two-fold: first, to develop in-situ procedures for production of gas of adequate quality to be used on site for fuel purposes in connection with compression, steam generation, and similar applications; second, to develop procedures for maximizing production of high quality gas as a commercial alternative for obtaining the maximum fuel values from oil shale within the next ten years.

Establishment of adequate environmental safeguards are also an important objective of this subprogram and appropriate measures will be taken to insure their inclusion as an integral part of process development.

Accomplishments:

A small-area test, now underway at Rock Springs, Wyoming, is continuing in the area of in-situ shale oil production. Shale oil gasification, at a test facility located at the Laramie, Wyoming Energy Research Center, is being pursued on a modest scale, continuing efforts on basic technology development and environmental studies are in progress.

Need for Increase:

The FY 1976 increase for this subprogram, on a cost basis, is $4,131,000 over the FY 1975 level. This increase for FY 1976 will provide for the initiation of design and preparatory work for a larger scale field test for in-situ shale oil production to be conducted on a contractual basis. In the in-situ shale gas production area contractual design for an aboveground pilot plant will be started. Laboratory and field investigations involving environmental studies for these two projects will continue.

In situ processing has several advantages over alternative methods of oil recovery. It is potentially more economical, requires less water, and could result in greatly reduced environmental effects. Major technical issues to be resolved include the method to be used for fracturing the shale bed to increase its permeability, maintaining and controlling the retorting process, and optimizing resource recovery.

Research conducted on in-situ processing is designed to expedite development of the technology for producing shale oil and gas directly from oil shale in its underground location, thus eliminating the environmental problems associated with mining and aboveground processing. Concurrently, research is directed toward providing a technology applicable to deposits that are not well suited to aboveground approaches. The current effort ranges from laboratory studies to field tests of in-situ shale oil production and investigation of associated environmental aspects. In-situ gasification research has thus far progressed only to bench-scale tests but is projected for a larger-scale effort starting in FY 1976. This expansion is planned largely on a contractual basis, as are increased efforts on in-situ oil production.

The program increase requested will be used for both in-situ gasification and shale oil production. The increase will be used to extend the present laboratory research on in-situ gasification to a pilot scale, using equipment in which underground conditions can be simulated to define the effects of operating variables and to provide a general basis for estimating process operability and costs under actual conditions, and design of the pilot facility will be contracted in FY 1976. Construction and shakedown operations, also under contract, are projected for the following year. Depending on progress and results, the ultimate goal is to conduct an actual field demonstration of the process starting about FY 1979. The current effort on in-situ retorting is producing useful results. Field experimentation now underway on a one-acre site as an in-house project will be continued through FY 1976 according to present projections. Concurrently, design and preparatory work for a larger field test (tentatively 10 acres) will be contracted with the intent of starting actual operations in FY 1977. The overall plan includes contracting for two additional tests, with preparatory work starting in FY 1977 and FY 1978. This series of tests is designed to assess the effects and limitations of such important factors as depth, method of heating, and degree of formation fracturing. The final step will be a "best technology" demonstration starting in FY 1979, prospectively on a cost-sharing basis with industry.

In FY 1976, the program will also concentrate on the basic technology associated with fracturing and the retorting processes for successfully recovering oil from oil shale in an economic and environmentally acceptable manner. Also, work to develop numerical models in the rock mechanics area will continue.

2. Composition and Characterization + $ 562 No Positions

Objectives:

The objective of this ongoing project, which principally involves laboratory and bench-scale research, is to provide a fund of reliable information to support other portions of the oil shale program, to expedite improvements of existing oil shale and shale oil processes, and to facilitate development of superior new approaches.

Need for Increase:

The estimated costs in FY 1976 for this subprogram are $1,113,000, an increase of $562,000 over FY 1975. With growing interest and activity by industry and Government in oil shale development, the need also is increasing for reliable scientific information to support development, scaleup, and improvement of processes and to provide a technical basis for policy decisions. Laboratory and bench-scale research on composition and characterization of oil shale and shale oil is a primary source of information. The increase in FY 1976, approximately half of which will be used for research contracts or university grants, will permit the minimal expansion of capability needed to

keep pace with the requirements of such information. Work will be continued to extend knowledge about the Green River Formation oil shale comprising the deposits of the Piceance Creek Basin in Colorado, the Uinta Basin of Utah, and the Washakie and Green River Basins in Wyoming.

Ongoing research to develop and improve the technology for producing clean end-use fuels from various shale oils or oil shale will be directed to an increasing extent to newer shale oils expected to be available, such as from the Paraho retort now being developed at the Anvil Points facilities near Rifle, Colorado, and from the present in situ retorting project at Rock Springs, Wyoming.

Refining research will be continued with emphasis being shifted to hydrocracking of total crude shale oils to produce liquid and gaseous fuels in comparison to relatively complex, established approaches involving preparatory steps such as coking prefractionation into prescribed distillates as hydrogenation charge stocks.

Pioneering work directed toward development of new technology for oil shale processing is expected to reach the point where current research on the steam-carbon monoxide process for converting oil shale can be evaluated during FY 1976, potentially leading to plans for larger-scale testing. Concurrently, other more advanced ways to furnish the energy required for converting the kerogen in oil shale to useful products, such as by ultrasonics and microwave heating, will be investigated. Such extended research would largely be accomplished by means of contracts or university grants.

Analysis by Subprogram
FY 1976 Estimate and July 1 - September 30 Period
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

APPROPRIATION - OPERATING EXPENSES

	FY 1976 Estimate		Estimate July 1 - Sept. 30, 1976	
Oil Shale Program	Costs	Budget Authority	Costs	Budget Authority
1. In-Situ Processing	$ 7,034	$ 7,720	$ 2,000	$ 1,950
2. Composition and Characterization	1,113	1,265	300	300
Total Oil Shale	$ 8,147	$ 8,985	$ 2,300	$ 2,250

U.S. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION
Justification for Transition Period
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

Oil Shale Program	$ 2,300
In-Situ Processing	2,000

An estimate of $2,000,000 for operating costs is required for the period July 1, 1976 - September 30, 1976. This cost estimate is based on an obligational requirement of $1,950,000 for this period as well as payments accruing from previously obligated balances. Operation and evaluation of a field test and the design of additional tests on oil production from shale will continue during this period. Design activities associated with gas production from oil shale will also continue as well as essential environmental studies in both project areas. The requested level of activity during the transition period will provide for only continuing operations at approximately FY 1976 levels.

Composition and Characterization	300

Costs estimated at $300,000 are required for the transition period. This amount will permit the continuation of activities at the FY 1976 level. Projects, which primarily involve bench-scale research, are necessary to provide information essential to support other parts of the Oil Shale program, to expedite improvement of existing processes, and to facilitate development of superior new ones.

FY 1976 Budget Estimates
Appropriation - Plant and Capital Equipment
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

OIL SHALE PROGRAM - PLANT AND CAPITAL EQUIPMENT OBLIGATIONS

This table and the following justification for the plant and capital equipment appropriation will be on an obligation basis.

	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
A. Obligations for Construction Projects	$ 0	$ 0	$ 0	$ 0
B. Obligations for Capital Equipment Not Related to Construction	25	75	325	+ 250
Total Obligations for Plant and Capital Equipment	$ 25	$ 75	$ 325	$ + 250

Obligations for the Oil Shale Program for FY 1976 are estimated at $325,000 of which:

a. $325,000 is for Capital Equipment Not Related to Construction justified in Section B below, requested for authorization in the proposed Authorization Act.

SECTION B - Obligations for Capital Equipment Not Related to Construction

JUSTIFICATION

a. Oil Shale ..... $ 325

Field tests on the production of oil from shale are expected to increase during FY 1976. In addition, design and attendant equipment orders for gas production from oil shale projects will be initiated. Primary equipment necessary in support of this program is for the purchase of retort operating equipment and control system, pressure furnace and instrumentation, material handling, and oil recovery systems. All major mining equipment will be contractor owned, thus in FY 1976 the items are less than $50,000 each.

Analysis by Subprogram
FY 1976 Estimate and July 1 - September 30 Period

FOSSIL ENERGY DEVELOPMENT

APPROPRIATION - PLANT AND CAPITAL EQUIPMENT

	FY 1976 Estimate Budget Authority	Estimate July 1 - September 30, 1976 Budget Authority
Oil Shale Program		
In Situ Processing	$ 325	$ 100

Justification for Transition Period
Appropriation - Plant and Capital Equipment
(Dollars in thousands, except whole dollars in narrative material)

FOSSIL ENERGY DEVELOPMENT

Oil Shale Program	$ 100
In-Situ Processing.....	100

An estimate of $100,000 for replacement of field equipment is required for this subprogram during the transition period. Items to be purchased are primarily simplified field equipment utilized in the projects.

FY 1976 Budget Estimates
(Dollars in thousands except whole dollars in narrative material)

SUMMARY TABLE

II. SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS DEVELOPMENT

Operating Expenses:	Actual FY 1974		Estimate FY 1975		Estimate FY 1976		Estimate Transition Period	
A. Advanced Energy Systems Research	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.
1. Magnetohydrodynamics	$2,815	$7,835	$ 7,584	$12,995	$13,773	$13,544	$2,200	$2,300
2. Fuel Cells	0	400	500	600	500	600	200	0
3. Supporting Activities	1,345	1,205	4,200	5,600	8,900	10,900	1,630	1,930
Total Advanced Energy Systems Research	$4,160	$9,440	$12,284	$19,195	$23,173	$25,044	$4,030	$4,230
Total Operating Expenses	$4,160	$9,440	$12,284	$19,195	$23,173	$25,044	$4,030	$4,230

FY 1976 Budget Estimates
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS DEVELOPMENT

ADVANCED ENERGY SYSTEMS RESEARCH: OPERATING COSTS

ANALYSIS BY SUBPROGRAM

This table and the following justification for the operating expenses appropriation will be on a cost budget basis.

Subprogram	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
1. Magnetohydrodynamics	$ 2,815	$ 7,584	$ 13,773	+ $ 6,189
2. Fuel Cells	0	500	500	0
3. Supporting Activities	1,345	4,200	8,900	+ 4,700
Total Advanced Energy Systems Research	$ 4,160	$ 12,284	$ 23,173	+ $ 10,889

(Dollars in thousands, except whole dollars in narrative material)

SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS DEVELOPMENT

ADVANCED ENERGY SYSTEMS RESEARCH PROGRAM

HIGHLIGHT EXPLANATION OF CHANGES
BY SUBPROGRAM

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
Advanced Energy Systems Research				
1. Magnetohydrodynamics + $ 6,189	0	$ 13,773	16	The increase reflects significant costs associated with obligations recorded in previous years. On a budget authority basis, the FY 1976 program increase is $549,000 over the current year.
2. Fuel Cells 0	0	500	0	No increase in costs over the current year.
3. Supporting Activities + 4,700	0	8,900	0	Increased costs related to systems studies, technology transfer and supporting research and development will be incurred. Systems studies will be emphasized to provide a coordinated approach to understanding the interrelationships among energy supply and demand options as they apply to Advanced Energy Systems.
+ $10,889	0	$ 23,173	16	

Program/Subprogram	Requested Increase/Decrease Amount	Positions	Total Program Amount	Positions
Advanced Energy Systems Research				
1. Magnetohydrodynamics (MHD)	+ $ 6,189	0	$13,773	16
2. Fuel Cells	0	0	500	0
3. Supporting Activities	+ 4,700	0	8,900	0
Total Advanced Energy Systems Research	+ $10,889	0	$23,173	16

Objectives:

The objective of the Advanced Energy Systems Research program is to establish the technology base which will allow the continuation of the development of advanced electrical power generating systems using coal and/or coal-derived fuels as the energy source. The main attractions of the several systems included in this program are the potential higher conversion efficiencies, the promise of utilizing coal directly as well as coal-derived liquid and gaseous fuels, and possible low environmental impact.

Accomplishments:

Exploratory work on MHD and fuel cell units has already been undertaken in such areas as electrode design, heat transfer, validity of system concepts, etc. An engineering test facility for open cycle MHD systems will be designed for initial operation in 1980. A near commercial scale demonstration of this technology may be possible in the mid to late 1980's.

The basic feasibility of the open cycle plasma MHD system has been established and exploratory work over the past four years has led to the establishment of preliminary engineering designs of the MHD generator and other key components. The program as presently structured contemplates a phased, logical development from the present preliminary base to the possible operation of a demonstration facility at near commercial scale.

Interest in utilizing closed cycle MHD systems with fossil fuels has recently developed. To explore the potential of this type of MHD system, ERDA and industry are jointly undertaking a preliminary testing program.

In the area of fuel cells, in-house Government laboratory analytical studies will be aimed at better defining the potential of existing fuel cells and fuel cell concepts operating with coal-derived fuels.

In addition to the above, common engineering technology and additional projects supporting Advanced Energy Systems Research is proceeding. Examples of projects include: fireside corrosion materials evaluation; development of a high performance, very high temperature heat exchanger; studies of the economics, environmental impact, and improved energy conserving potential of these processes; and "new idea" studies to advance the projects.

Need for Increase:

The Advanced Energy Systems Research program includes efforts on advanced power systems such as magnetohydrodynamics (MHD) and fuel cells and supporting activities. Advanced power systems based on MHD and fuel cell generation are needed in order to obtain more electrical energy from coal resources than is possible with today's technology. If successful, these higher efficiency systems will reduce the environmental burden imposed by mining requirements, waste (ash) disposal and water needs. These programs are in an early stage of development and the demonstration of the practicality of reliable, economic operations is part of the overall progam goal. In addition, efforts will explore the possibility of generating power from new heat sources and combustion systems operating at appreciably higher temperatures than present industrial practice and at efficiencies substantially higher than current systems.

One of the most promising projects is the use of the MHD generator that combines the turbine and generator functions into one unit by passing ionized gas through a duct immersed in a magnet and generating power in the gas duct

itself. Another area, fuel cell development, in which electricity is generated electrochemically from fuels derived from gasified and liquefied coal, can be used to generate power at high efficiency and in a very clean manner. Fuel cell operation is almost silent, results in extremely clean atmospheric emissions, has very low water requirements, and consequently is suitable for power generation in modest sized dispersed modules.

Specific program changes in the program in FY 1976 are discussed in detail below:

1. Magnetohydrodynamics	+ $6,189	No Positions

The FY 1976 cost estimate for this subprogram is $13,773,000, an increase of $6,189,000 over FY 1975. This increase reflects significant costs associated with obligations recorded in previous years. On a budget authority basis, FY 1976 program increase is $549,000 over the current year.

The incorporation of MHD generators into the topping stage of binary power cycles offers the twin prospects of high overall thermal efficiency and low pollution levels with the direct utilization of coal. The basic feasibility of the process has been established and exploratory work over the past four years has led to preliminary engineering of developmental generators and other key components.

The major accomplishments of this past work have been: (a) demonstration of the benefits of the "slagging" (direct coal combustion) mode of operation, (b) improved understanding of electrode design in relation to current distribution, heat transfer, electromagnetic field instabilities, enthalpy extraction, and other basic engineering concerns, (c) identification of system concepts through model studies and initial determination of basic performance sensitivities to primary engineering design and operational parameters, (d) demonstration of the scientific feasibility of recycling potassium seed, as required by economic constraints, (e) preliminary testing of coal combustors for open cycle MHD systems, (f) demonstration of solutions to environmental impact problems, and (g) steady advancement of basic capability to design, construct, and test first-generation generator test prototypes.

During FY 1976, the major program actions to be taken will involve focusing work on specifically defined engineering goals. This process has already been initiated in FY 1975 and includes the organization of interdisciplinary design review teams to regularly evaluate progress on the major hardware projects. Recognizing that the engineering experience and data base for the design and construction of pilot scale facilities (50-100 megawatt, electrical) is not now available for coal-fired systems, the program is being organized to insure that the design of test components and the supporting test schedules and conditions address the objectives of the defined engineering goals of a logical program.

The major immediate goal is to demonstrate the engineering feasibility of an open-cycle, coal-fired MHD power system. An engineering test facility capable of operating all components of an MHD system on a long duration, integrated basis represents the major milestone in this program. Initial operation of the facility is scheduled for FY 1980, and under Public Law 93-404 this facility will be located in Montana. A maximum effort in FY 1976 through FY 1980 will be directed toward this goal and will include the development and extension of existing generator, auxiliary component and materials investigations as well as the initiation of systems studies and design work on facilities required in later stages of the program. As an integral part of the overall effort, the United States/Union of Soviet

Socialist Republics (US/USSR) Cooperative Program in Open Cycle MHD will provide needed information on pilot scale integrated plant operation and a limited amount of testing of U.S. components and materials. A second goal is to determine the basic feasibility of coal-fired, closed-cycle MHD systems and an exploratory program in this area will be continued in FY 1976.

2. Fuel Cells — No increase — No Positions

Fuel cell development to date has concentrated mainly on designs using specialized clean fuels such as methane and hydrogen. The proposed program will concentrate first on evaluating existing fuel cells with coal-derived fuel and on matching coal-derived fuels with the most compatible fuel cell concepts. This is needed in order to determine which fuel cell-fuel combinations can lead to practical, reliable, economic systems for implementation. After this evaluation testing and matching study is completed, a decision will be made concerning whether any concept is sufficiently practical to justify development for system testing and later implementation.

Both low temperature acid cells and high temperature carbonate cells are being considered for evaluation testing with low-Btu gas from coal.

3. Supporting Activities — + $4,700 — No Positions

The supporting activities subprogram includes efforts related to systems studies technology transfer and supporting research and development. One of the principal objectives of systems studies is to provide a coordinated approach to understanding the interrelationships among energy supply and demand options. Additionally, systems studies will examine all aspects of energy including technological, environmental, economic, societal, regulatory and legal.

These studies will include detailed investigations of: (1) industrial and commercial energy demand analysis and forecasting; (2) energy systems analysis and technological assessments; (3) application of a linear programming model for projecting regional energy patterns and optimum mix of electric utility powerplant; (4) development of analytical methods, including work on input-output analysis of the energy sectors; and (5) studies and development of models to assist in the ERDA planning process. The nature of the energy problem is such that it will be necessary to make some additional studies not identified in our present planning.

ERDA developments will be performed in concert with private industry in such a way that technology utilization and transfer to the nation's economy will be accomplished. Concerted efforts will be made to shorten the lead time in implementing energy related environment improvement technologies.

Analysis by Subprogram
FY 1976 Estimate and July 1 - September 30 Period
(Dollars in thousands, except whole dollars in narrative material)

SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS DEVELOPMENT

APPROPRIATION - OPERATING EXPENSES

	FY 1976 Estimate		Estimate July 1 - Sept. 30, 1976	
	Costs	Budget Authority	Costs	Budget Authority
Advanced Energy System Research Program				
1. Magnetohydrodynamics	$13,773	$13,544	$ 2,200	$ 2,300
2. Fuel Cells	500	600	200	0
3. Supporting Activities	8,900	10,900	1,630	1,930
Total Advanced Energy System Research Program	$23,173	$25,044	$ 4,030	$ 4,230

Justification for Transition Period
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS DEVELOPMENT

Advanced Energy System Research Program $ 4,030

Magnetohydrodynamics (MHD) 2,200

An estimate of $2,200,000 is requested for operating costs for the period July 1, 1976 - September 30, 1976. The cost estimate was computed on the basis of the required obligational program for this period of $2,300,000. The requested amount provides for the continuation of the MHD projects at the minimum levels essential to maintain these projects at approximately the same level as in FY 1976. Projects include continuation of Open Cycle Plasma MHD systems, Closed Cycle MHD systems, as well as supporting research and technology.

Fuel Cells 200

The cost estimate for the transition period is $200,000. No additional obligations are planned during this period but costs related to obligations recorded in previous fiscal years will be incurred.

Supporting Activities..... 1,630

The cost estimate for the transition period is $1,630,000. This amount will provide for the continuation of efforts related to system studies, technology transfer and supporting research and development at a level consistent with activities during FY 1976.

FY 1976 Budget Estimates
(Dollars in thousands, except whole dollars in narrative material)

SUMMARY TABLE

III. Conservation Research and Development	Actual FY 1974		Estimate FY 1975		Estimate FY 1976		Estimate Transition Period	
Operating Expenses:	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.
A. Advanced Automotive Power Systems								
1. Power Systems Evaluations	$1,000	$7,100	$3,350	$3,380	$5,670	$6,240	$1,200	$1,350
2. Propulsion Systems Improvements	400	2,000	680	680	1,400	1,700	500	555
3. Alternative Fuel Utilization	100	315	260	260	500	700	200	230
4. Supporting Research and Development	0	0	200	200	670	800	160	175
Total Advanced Automotive Power Systems Program	$1,500	$9,415	$4,490	$4,520	$8,240	$9,440	$2,060	$2,310
B. End Use Conservation								
1. Conservation in Buildings	$ 0	$ 0	$ 0	$ 0	$1,000	$1,750	$ 450	$ 450
2. Conservation in Industrial Processes	0	0	0	0	1,000	1,750	450	450
3. Conservation in Consumer Products	0	0	0	0	350	500	25	25
4. Support Systems Studies	0	0	0	0	650	1,000	75	75
Total End Use Conservation Program	$ 0	$ 0	$ 0	$ 0	$3,000	$5,000	$1,000	$1,000
Total Operating Expenses	$1,500	$9,415	$4,490	$4,520	$11,240	$14,440	$3,060	$3,310

FY 1976 Budget Estimates
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

CONSERVATION RESEARCH AND DEVELOPMENT

ADVANCED AUTOMOTIVE POWER SYSTEMS: OPERATING COSTS

Analysis by Subprogram

Subprogram	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
This table and the following justification for the operating expenses appropriation will be on a cost budget basis.				
1. Power Systems Evaluations	$1,000	$3,350	$5,670	+$2,320
2. Propulsion Systems Improvements	400	680	1,400	+ 720
3. Alternative Fuel Utilization	100	260	500	+ 240
4. Supporting Research and Development	0	200	670	+ 470
Total Advanced Automotive Power Systems	$1,500	$4,490	$8,240	+$3,750 1/

1/ The increased FY 1976 costs primarily reflect full year operation of projects initiated mid and late FY 1975. Therefore, the level of effort in FY 1976 is not significantly different from that existing at the end of FY 1975.

(Dollars in thousands, except whole dollars in narrative material)

CONSERVATION RESEARCH AND DEVELOPMENT

ADVANCED AUTOMOTIVE POWER SYSTEMS

Highlight Explanation of Changes
by Subprogram
FY 1976

Increase (+) or Decrease (-) Amount	Total Program	Explanation
1. Power Systems Evaluations +$2,320	$5,670	Development of Stirling engine design and improvement of light weight, light duty diesel engine, gas turbine.
2. Propulsion Systems Improvements + 720	1,400	Continuation of development of: advanced transmission concepts, higher efficiency automotive accessories and drives, and engine cycle modifications utilizing exhaust heat.
3. Alternative Fuel Utilization + 240	500	Assessment study of use of alternative fuels; characterization study of methanol, methanol-gas blends, synthetic gas, hydrogen, etc.; and development of automotive power plant related technologies for future use of alternative fuels.
4. Supporting Research and Development + 470	670	Identification of promising concepts; improvement of engine design capability; development of electric power vehicles; investigation of engine and component modifications to improve efficiency and application of alternate fuels.
+$3,750	$8,240	

Subprogram by Category
FY 1976

Program	Requested Increase/ Decrease Amount	Total Program Amount
1. Power Systems Evaluations		
a. Gas Turbine Program	+$1,090	$3,270
b. Rankine System	- 1,000	0
c. Light Weight, Light Duty Diesel	+ 750	800
d. High Temperature Ceramics Materials	+ 300	300
e. Stirling Engine	+ 980	1,000
f. Engineering Support	+ 200	300
Total Power Systems Evaluations	+$2,320	$5,670
2. Propulsion Systems Improvements		
a. Advanced Transmission	+$ 20	$ 500
b. Improved Accessory Drives	+ 100	100
c. Vehicle Modifications	+ 600	800
Total Propulsion Systems Improvements	+$ 720	$1,400
3. Alternative Fuel Utilization		
a. Methanol, Gasoline - From Coal and Hydrogen Resources	+$ 240	$ 500
4. Supporting Research and Development		
a. Systems Studies	+$ 470	$ 670
Total Advanced Automotive Power Systems	+$3,750	$8,240

Objectives

The advanced automotive power systems program was initiated with the goal of objectively evaluating alternative power systems for automobiles. The intent of the program is to provide a basis for Government decisions regarding the technological feasibility of increased efficiency which also meets the low emission levels required by environmental standards. The shorter range elements of the program are directed toward more efficient, low emission heat engines that use fossil fuels. The longer range topics include use of alternate fuels and development of vehicle systems that use stored energy, for example, batteries, heat storage, and inertia systems. Research will also be done on combustion processes and materials.

Highlights of Recent Accomplishments

The program has been developing prototype hardware appropriate for the demonstration of a practical and efficient engine system which would be capable of meeting the original 1976 Federal emissions standards. If the technology successfully advances, as anticipated, the systems demonstrated are expected to serve to catalyze industry to pick up these advances and produce their own improved systems.

Need for Increase

The increased FY 1976 costs primarily reflect full year operation of projects initiated mid and late FY 1975. Therefore, the level of effort in FY 1976 is not significantly different from that existing at the end of FY 1975.

Specific program changes in this program in FY 1976 are discussed in detail below.

1. Power Systems Evaluations +$2,320

The primary goal of this subprogram is the development of alternative automotive power systems that meet the stringent Federal statutory emission standards and that provide significant improvement in fuel economy over the conventional automobile. Additional benefits of this subprogram are multi-fuel capability, longer life systems, and utilization of more abundant materials. Specific objectives are: (1) continuation in FY 1976 of the development of the gas turbine that is currently under development to achieve low emissions and improve fuel economy; (2) development of 80 - 100 HP (range) energy Stirling engine design for a compact car; (3) development of a light weight, light duty diesel engine that has high fuel economy, low emissions, and that impacts on current problems that are preventing it from meeting widespread use in the marketplace; (4) initiation in FY 1976 of research and development effort in the area of high temperature ceramic materials for introduction into an advanced high temperature automotive gas turbine; and (5) initiation in FY 1976 of research and development effort in the area of heat storage, heat pipe high temperature insulation, and heat storage containment materials for use with heat storage Stirling systems for automotive application.

It is expected that in the mid 1980's proposed and ongoing technologies should be available to allow introduction into the marketplace of alternative systems that substantially reduce the consumption of fuel on a per mile basis.

2. Propulsion Systems Improvements +$ 720

The primary goal of this subprogram is to develop more efficient components and subsystems for conventional automotive vehicles. The specific benefits of this subprogram are the near-term impacts on fuel improvements for the automotive transportation sector and early vehicle demonstrations showing the improvements in the evaluation and assessment of the current state-of-the-art. Specific objectives are: (1) continuation of the development of two advanced transmission concepts--traction and hydro mechanical type--that allow a 20 percent gain in fuel economy for conventional as well as advanced systems; (2) continuation in FY 1976 of the development of higher efficiency automotive accessories and drives; (3) continuation in FY 1976 of the development of conventional engine cycle modifications that utilize exhaust heat in order to reduce fuel consumption; and (4) demonstration and evaluation of these improvements and modifications in a vehicle program in order to determine the net gains.

3. Alternative Fuel Utilization +$ 240

The primary goal of this subprogram is the research and study evaluation of alternative automotive fuels which have been identified as promising future alternatives to petroleum gasoline and which are produced from domestic energy resources. The specific benefit of the subprogram is to understand alternatives in terms of energy resource technology requirements and economic and societal impacts for introduction and use. Specific objectives are: (1) technology assessment study of the impacts associated with the future introduction and use of alternative fuels; (2) automotive engine research to characterize the efficiency, performance, and emissions of methanol, methanol-gasoline blends, synthetic gasoline (from coal and oil shale), hydrogen, and hydrogen-gasoline blends; and (3) development of automotive power plant related technologies for future use of alternative fuels, e.g., engine materials for combustion of hydrogen and methanol.

4. Supporting Research and Development +$ 470

As a result of the oil embargo in 1973, added emphasis will be initiated to improve energy efficiency in motor vehicles to effect a reduction in demand for petroleum by: improving fuel economy through improved efficiency of current propulsion systems and development of advanced heat engines, components, and vehicle systems; preparing for the use of alternate fuels; and by developing alternate propulsion systems. Specifically, for FY 1976, technical assessments will be conducted to identify promising concepts and their impact if implemented. To improve engine design capability, research will be undertaken using computers and advanced technology to obtain a fundamental understanding of the combustion process. Electric vehicle development will also be advanced. The application of alternate fuels, such as methanol to automobile applications, will be investigated as well as modifications to current engines and components to improve efficiency. Also, identification of new concepts will be pursued. Contractor engineering support will be part of this subprogram.

Analysis by Subprogram

FY 1976 Estimate and July 1-Sept. 30 Period
Advanced Automotive Power Systems

APPROPRIATION - OPERATING EXPENSES

	FY 1976 Estimate		Estimate July - Sept. 30, 1976	
Advanced Automotive Power Systems	Costs	Budget Auth.	Costs	Budget Auth.
1. Power Systems Evaluations	$5,670	$6,240	$1,200	$1,350
2. Propulsion Systems Improvements	1,400	1,700	500	555
3. Alternative Fuel Utilization	500	700	200	230
4. Supporting Research and Development	670	800	160	175
Total	$8,240	$9,440	$2,060	$2,310

Justification for Transition Period

Appropriation - Operating Expenses

(Dollars in thousands, except whole dollars in narrative material)

CONSERVATION RESEARCH AND DEVELOPMENT

Advanced Automotive Power Systems..... $2,060

An estimate of $2,060,000 is requested for the period July 1, 1976, through September 30, 1976. This amount was computed on the basis of 25 percent of the funding level for the Advanced Automotive Power Systems activities at the FY 1976 budget estimate level. Specifically, the requested amount will be used to continue the development of the Stirling engine, light duty diesel engine, and the gas turbine. Also included is continuation of higher efficiency automotive accessories, use of alternative fuels, and components for modification to improve efficiencies.

FY 1976 Budget Estimates
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

CONSERVATION RESEARCH AND DEVELOPMENT

END USE CONSERVATION: OPERATING COSTS

Analysis by Subprogram

Subprogram	Actual FY 1974	Estimate FY 1975	Estimate FY 1976	Increase (+) or Decrease (-) 1976 Compared with 1975
This table and the following justification for the operating expenses appropriation will be on a cost budget basis.				
1. Conservation in Buildings.....	$ 0	$ 0	$1,000	$1,000
2. Conservation in Industrial Processes...	0	0	1,000	1,000
3. Conservation in Consumer Products.....	0	0	350	350
4. Support Systems Studies.....	0	0	650	650
Total End Use Conservation.....	$ 0	$ 0	$3,000	+$3,000

(Dollars in thousands, except whole dollars in narrative material)

CONSERVATION RESEARCH AND DEVELOPMENT

END USE CONSERVATION

Highlight Explanation of Changes
by Subprogram
FY 1976

Increase (+) or Decrease (-) Amount	Total Program	Explanation
End Use Conservation		
1. Conservation in Buildings +$1,000	$1,000	Initiation of R&D to eliminate unnecessary energy consumption; improve energy efficiency of processes; and bring about more plentiful fuel forms.
2. Conservation in Industrial Processes + 1,000	1,000	Develop energy-efficient industrial processes to include improved waste heat utilization, thermal storage, etc.
3. Conservation in Consumer Products + 350	350	Conduct R&D to increase energy efficiency of consumer products.
4. Support Systems Studies + 650	650	Conduct study to reduce electrical process energy requirements; establish energy information center; conduct study of state-of-the-art life cycle cost techniques.
+$3,000	$3,000	

Subprogram by Category
FY 1976

Program	Requested Increase/ Decrease Amount	Total Program Amount
1. Conservation in Buildings		
a. Commercial Sector	+$ 200	$ 200
b. Residential Sector	+ 200	200
c. Waste Utilization	+ 200	200
d. Modular Integrated Utility Systems	+ 200	200
e. Retrofitting Existing Buildings	+ 200	200
Total Conservation in Buildings	+$1,000	$1,000
2. Conservation in Industrial Processes		
a. Energy Management	+$ 100	$ 100
b. Waste Utilization	+ 100	100
c. Heat Pumps	+ 100	100
d. Energy Storage	+ 100	100
e. Agriculture and Food Industry	+ 300	300
f. Energy-Conserving Manufacturing Processes	+ 100	100
g. Energy Conservation in the Materials Industries	+ 100	100
h. Lighting and Advertising	+ 100	100
Total Conservation in Industrial Processes	+$1,000	$1,000
3. Conservation in Consumer Products	+$ 350	$ 350
4. Support Systems Studies		
a. Reduction of Electrical Process Energy Requirements	+$ 200	$ 200
b. Energy Information Center	+ 300	300
c. Study of State-of-the-Art Life Cycle Cost Techniques	+ 150	150
Total Support Systems Studies	+$ 650	$ 650
Total End Use Conservation	+$3,000	$3,000

Objectives

The objective of this program is to develop new technologies for reducing the utilization of energy, particularly in commercial and residential buildings. During FY 1976, data related to existing technologies (for example, energy efficiency in appliances) and national conservation policy will be reviewed to better define the potential and appropriate contribution of end use conservation research. Research will be conducted on energy conserving office buildings and more energy-efficient home appliances. Methods for identifying the potential payoff of end use conservation research will be developed. It is also the objective of the program to work with other agencies such as FEA and HUD in order to coordinate Federal Conservation R&D activities.

Specific program activities in FY 1976 are discussed in detail below.

1. Conservation in Buildings +$1,000

To conduct research and development to eliminate unnecessary energy consumption; improve the energy efficiency of processes to include the design of new systems, approaches, development of new technologies, and optimization of energy savings in new, integrated building complexes, and enable a modal shift from scarce to more plentiful fuel forms.

a. Commercial Sector

To conduct the necessary research and development to demonstrate the application of new technologies, processes and procedures to the conservation of energy in commercial buildings (and to enable a modal shift to more plentiful fuel forms).

b. Residential Sector

To conduct research and development to effect significant increases in the efficiency of energy utilization in residences, emphasizing heat pumps, use of less energy intensive construction materials and methods, better insulation materials, ventilation, and energy storage.

c. Waste Utilization

To conduct the research and development needed and to demonstrate on a large scale the direct substitution of combustible wastes for conventional fuels for heat and power production in an environmentally acceptable manner and also the replacement of conventional carbon resources such as natural gas by the conversion of such residues by biological or pyrolytic processes to other and possibly more desirable or more useful energy resource forms such as hydrogen, methane, or methanol.

d. Modular Integrated Utility Systems

To conduct research, development, and demonstration during FY 1976 for broad application of a modular integrated utility system incorporating the features of waste heat utilization, district heating and cooling, and energy storage.

e. Retrofitting Existing Buildings

To conduct the necessary research and development needed to demonstrate economically viable methods of upgrading the energy efficiency of existing buildings.

2. Conservation in Industrial Processes +$1,000

To provide such technologic and other support as is necessary to ensure the development of workable and acceptable energy-efficient industrial processes to include improved waste heat utilization, thermal storage, multiple uses of energy, substitute materials and alternate energy sources during FY 1976.

a. Energy Management

To conduct the necessary research and development to demonstrate the application of new technology, processes, and procedures to the improvement of industrial energy management and monitoring in industrial processes involving heat transfer, heat cascading, and heat exchanging.

b. Waste Utilization

To conduct the necessary research and development to demonstrate the application of new technology, processes, and procedures to the utilization of industrial waste of low Btu density to recover energy without pollution.

c. Heat Pumps

To conduct the necessary research and development to demonstrate the application of new technology, processes, and procedures to the utilization of heat pump methodology to the heating and cooling of industrial processes with reduction of the net energy consumption of industry.

d. Energy Storage

To conduct the necessary research and development to demonstrate the application of new technology, processes, and procedures to the use of energy storage to store periodic energy generation for orderly use later by processes in industry achieving a net overall reduction in energy consumption.

e. Agriculture and Food Industry

(1) To conduct the necessary research and development to identify, define, evaluate, and demonstrate practical methods for reducing the amount of energy wastage resulting from conduct of agricultural activities.

(2) To conduct the necessary research and development to identify, define, and assess reaction to and impact of forced energy supply limitations on the agriculture industry.

(3) To conduct the necessary research and development to identify, define, evaluate, and demonstrate practical methods for minimizing the undesirable impact of forced energy supply limitations on gross production by the agriculture industry.

f. Development of Energy-Conserving Manufacturing Processes

To conduct the necessary research and development to demonstrate the application of new technology, processes, and procedures to the conservation of energy during manufacturing processes.

g. Energy Conservation in the Materials Industries

To conduct the necessary research and development to demonstrate the application of new technology, processes, and procedures to the reduction of net unit energy consumed in mining, refining, converting, and transporting materials in a regime of increasing scarcity.

h. Lighting and Advertising

To conduct the necessary research and development to demonstrate the application of new technology, processes, and procedures to the transmitting of advertising messages in lower energy intensive ways with equal effectiveness using lower intensities but better contrast, etc., for equal or improved productivity, safety, etc.

3. Conservation in Consumer Products +$ 350

To conduct the necessary research and development to increase the energy efficiency of consumer products, provide the technological base for minimum efficiency standards, and enable a modal shift from scarce to more plentiful fuel forms.

4. Support Systems Studies +$ 650

a. Reduction of Electrical Process Energy Requirements

This study will provide actual data on process electrical energy requirements in 8 to 10 major consuming industries. The purpose of the study will be to determine the ability of the manufacturing sector to conserve in its use of electricity.

b. Energy Information Center

The Energy Information Center will encompass a multi-disciplinary approach to energy conservation and use. It will establish and sustain a base for constructive interaction among community groups, local government agencies, utilities, and educational installations.

c. Study of State-of-the-Art Life Cycle Cost Techniques

This study will provide a central repository of state-of-the-art data on life-cycle cost analysis related to energy conservation R&D activities.

Analysis by Subprogram

FY 1976 Estimate and July 1-Sept. 30 Period
End Use Conservation

APPROPRIATION - OPERATING EXPENSES

End Use Conservation	FY 1976 Estimate Costs	FY 1976 Estimate Budget Auth.	Estimate July - Sept. 30, 1976 Costs	Estimate July - Sept. 30, 1976 Budget Auth.
1. Conservation in Buildings	$1,000	$1,750	$ 450	$ 450
2. Conservation in Industrial Processes	1,000	1,750	450	450
3. Conservation in Consumer Products	350	500	25	25
4. Support Systems Studies	650	1,000	75	75
Total	$3,000	$5,000	$1,000	$1,000

Justification for Transition Period

Appropriation - Operating Expenses

(Dollars in thousands, except whole dollars in narrative material)

CONSERVATION RESEARCH AND DEVELOPMENT

End Use Conservation..... $ 1,000

An estimate of $1,000,000 is requested to fund programs under this activity for the period July 1, 1976, through September 30, 1976. This amount was computed on the basis of 33 1/3 percent of the proposed funding at the FY 1976 budget estimate level. Primarily, the program will continue work that will begin initially in FY 1976 to eliminate unnecessary energy consumption and improve energy efficiencies in buildings, industrial processes, and in consumer product. Also, work will continue in support systems studies.

FY 1976 Budget Estimates
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

INCREASE OR DECREASE IN SELECTED RESOURCES

ANALYSIS BY SUBPROGRAM

SUBPROGRAM	Actual FY 1974 Increase or Decrease	Estimate FY 1975 Increase or Decrease	Estimate FY 1976 Increase or Decrease
A. Goods and Services on Order			
1. Fossil Energy Development			
a. Coal			
(1) Liquefaction	$ 9,694	$ 60,419	$ 665
(2) High Btu Gasification	1,904	4,560	20,526
(3) Low Btu Gasification	764	47,087	-6,282
(4) Advanced Power Systems	24	1,810	1,340
(5) Direct Combustion	4,926	22,278	5,451
(6) Advanced Research and Supporting Technology	1,058	13,773	3,332
(7) Demonstration Plants	-	-	18,900
Total Coal Program	18,370	149,927	43,932
b. Petroleum and Natural Gas			
(1) Gas and Oil Extraction	568	10,127	2,864
(2) Gas and Oil Utilization	263	764	215
Total Petroleum and Natural Gas Program	831	10,891	3,079
c. Oil Shale			
(1) In-situ Processing	282	859	686
(2) Composition and Characterization	168	411	152
Total Oil Shale Program	450	1,270	838
Total Fossil Energy Development	$ 19,651	$ 162,088	$ 47,849

SUBPROGRAM	Actual FY 1974 Increase or Decrease	Estimate FY 1975 Increase or Decrease	Estimate FY 1976 Increase or Decrease
A. Goods and Services on Order - continued			
2. Solar, Geothermal and Advanced Energy Systems Development			
a. Advanced Energy Systems Research			
(1) Magnetohydrodynamics	$ 2,399	$ 8,258	$ -229
(2) Fuel Cells	0	100	100
(3) Supporting Activities	-140	1,400	2,000
Total Solar, Geothermal and Advanced Energy Systems Development	2,259	9,758	1,871
3. Conservation Research and Development			
a. Advanced Automotive Power Systems			
(1) Power Systems Evaluations	5,000	1,270	570
(2) Propulsion Systems Improvements	700	800	300
(3) Alternative Fuel Utilization	73	80	200
(4) Supporting Research and Development	0	22	130
Total Advanced Automotive Power Systems Program	5,773	2,172	1,200
b. End Use Conservation			
(1) Conservation in Buildings	0	0	750
(2) Conservation in Industrial Processes	0	0	750
(3) Conservation in Consumer Products	0	0	150
(4) Support Systems Studies	0	0	350
Total End Use Conservation Program	0	0	2,000
Total Conservation Research and Development	5,773	2,172	3,200
Grand Total Goods and Services on Order	$ 27,683	$ 174,018	$ 52,920

FY 1976 Estimate and July 1-Sept. 30 Period
Appropriation - Operating Expenses
(Dollars in thousands, except whole dollars in narrative material)

INCREASE OR DECREASE IN SELECTED RESOURCES

ANALYSIS BY SUBPROGRAM

SUBPROGRAM	Estimate FY 1976 Increase or Decrease	Estimate July 1 - Sept. 30, 1976 Increase or Decrease
A. Goods and Services on Order		
1. Fossil Energy Development		
a. Coal		
(1) Liquefaction	$ 665	$ 12,750
(2) High Btu Gasification	20,526	1,800
(3) Low Btu Gasification	-6,282	4,900
(4) Advanced Power Systems	1,340	1,200
(5) Direct Combustion	5,451	9,800
(6) Advanced Research and Supporting Technology	3,332	4,250
(7) Demonstration Plants	18,900	4,900
Total Coal Program	43,932	39,600
b. Petroleum and Natural Gas		
(1) Gas and Oil Extraction	2,864	-300
(2) Gas and Oil Utilization	215	-50
Total Petroleum and Natural Gas Program	3,079	-350
c. Oil Shale		
(1) In-situ Processing	686	-50
(2) Composition and Characterization	152	-
Total Oil Shale Program	838	-50
Total Fossil Energy Development	$ 47,849	$ 39,200

SUBPROGRAM	Estimate FY 1976 Increase or Decrease	Estimate July 1 - Sept. 30, 1976 Increase or Decrease
A. Goods and Services on Order - continued		
2. Solar, Geothermal and Advanced Energy Systems Development		
a. Advanced Energy Systems Research		
(1) Magnetohydrodynamics	$ -229	$ 100
(2) Fuel Cells	100	-200
(3) Supporting Activities	2,000	300
Total Solar, Geothermal and Advanced Energy Systems Development	1,871	200
3. Conservation Research and Development		
a. Advanced Automotive Power Systems		
(1) Power Systems Evaluations	570	150
(2) Propulsion Systems Improvements	300	55
(3) Alternative Fuel Utilization	200	30
(4) Supporting Research and Development	130	15
Total Advanced Automotive Power Systems Program	1,200	250
b. End Use Conservation		
(1) Conservation in Buildings	750	-
(2) Conservation in Industrial Processes	750	-
(3) Conservation in Consumer Products	150	-
(4) Support Systems Studies	350	-
Total End Use Conservation Program	2,000	-
Total Conservation Research and Development	3,200	250
Grand Total Goods and Services on Order	$ 52,920	$ 39,650

(Dollars in thousands, except whole dollars in narrative material)

HIGHLIGHT EXPLANATION OF CHANGES

Under the ERDA accrued cost budget and accounting system costs are charged to the appropriate programs when materials and services are actually received by or consumed in the programs. Under this cost based system, the budget submission for the several programs is in terms of accrued costs (i.e., salaries incurred, materials and services utilitzed, etc.). The total ERDA Operating Expenses Appropriation requirements for a fiscal year are the sum of the total program costs, less revenues received by ERDA and plus the amounts included under the activity "Increase or Decrease in Selected Resources."

The objective of the Increase or Decrease in Selected Resources activity is to budget for the net increase or decrease in levels of resources required to support the programs of ERDA. Requirements included in this submission are for Goods and Services on Order (undelivered orders) which are required to carry out the research and development efforts on those programs included in this submission. The requirements by fiscal year are for obligational authority for materials and services not expected to be received by the end of the fiscal year. The estimates are directly related to the efforts included under the explanations of program cost requirements above.

TRUST FUNDS
COSPONSOR FUNDS

Program and Financing (In thousands of dollars)

Identification code: 19-00-8575-0-7-305	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Program by Activities:				
(a) Coal				
1. Cosponsor Funds - contract research	$ 7,341	$ 13,000	$ 10,000	$ 2,500
10. Total obligations	7,341	13,000	10,000	2,500
Financing:				
60. Budget authority (appropriation) (permanent, indefinite)	7,341	13,000	10,000	2,500
Relation of Obligations to Outlays:				
71. Obligations incurred, net	7,341	13,000	10,000	2,500
90. Outlays	7,341	13,000	10,000	2,500

ADVANCES FOR COOPERATIVE WORK

American Gas Association

The cosponsor account represents the input of funds made available by the American Gas Association (A.G.A.) as its cosponsored portion of the combined ERDA/A.G.A. program for accelerated research and development of high-Btu gasification projects. In 1971 industry and Government joined in a cooperative effort to establish a viable coal gasification industry by means of a jointly accelerated research and development program. An agreement was initiated to jointly provide funds, two-thirds by Government and one-third by industry, starting in 1972.

Estimates of advances to be used for this effort are $13,000,000 in fiscal year 1975 and $10,000,000 in fiscal year 1976.

TRUST FUNDS
CONTRIBUTED FUNDS

Program and Financing (In thousands of dollars)

Identification code: 19-00-8575-0-7-305	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Program by activities:				
Direct program:				
1. Fossil energy development				
(b) Petroleum, natural gas, and oil shale	$ 274	$ 315	$ 315	$ 80
Total program costs	274	315	315	80
Change in selected resources (undelivered orders)	-3	-	8	-
10. Total obligations	271	315	323	80
Financing:				
21. Unobligated balance available, start of year	-46	-14	-14	-6
24. Unobligated balance available, end of year	14	14	6	6
60. Budget authority (permanent)	239	315	315	80
Relation of obligations to outlays:				
71. Obligations incurred, net	271	315	323	80
72. Obligated balance, start of year	7	4	4	12
74. Obligated balance, end of year	-4	-4	-12	-12
90. Outlays	274	315	315	80

ADVANCES FOR COOPERATIVE WORK

Petroleum, Natural Gas and Oil Shale

Funds contributed by States, counties, municipalities, and private sources are used to conduct research and investigations to promote the conservation, evaluation, and development of energy resources. Activities include composition and characterization of petroleum and oil shale, engine testing of petroleum fuels, and oil shale mine measurements.

Estimates of advances to be used for this purpose are $315,000 for fiscal year 1975 and $315,000 for fiscal year 1976.

SPECIAL FOREIGN CURRENCY PROGRAM

Program and Financing (In thousands of dollars)

Identification Code: 19-00-0102-0-1-305	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Program by Activities:				
Fossil Energy Research (program costs, funded) (object class 25.0)	$ -	$ -	$ 6,650	$ -
Change in selected resources (undelivered orders)	-	-	-	-
10. Total obligations	-	-	6,650	-
Financing:				
21. Unobligated balance, start of year	-	-	-	-
24. Unobligated balance, end of year	-	-	-	-
40. Budget authority (appropriation)	-	-	6,650	-
Relation of obligations to outlays:				
71. Obligations incurred, net	-	-	6,650	-
72. Obligated balance, start of year	-	-	-	-
74. Obligated balance, end of year	-	-	-1,050	-
90. Outlays	-	-	5,600	-

FY 1976 Budget Estimates
Appropriation - Special Foreign Currency Program
(Dollars in thousands, except whole dollars in narrative material)

Program/Subprogram	Requested Increase/Decrease Amount	Requested Increase/Decrease Positions	Total Program Amount	Total Program Positions
Special Foreign Currency				
1. Extraction/Hydrogenation of Coal	+ $5,350	0	$5,350	0
2. Production of Clean Gas for Use in MHD Power Systems	+ 1,300	0	1,300	0
Total, Special Foreign Currency Program	+ $6,650	0	$6,650	0

Under this program, the Energy Research and Development Administration (ERDA) will provide leadership to support selected coal energy research projects now underway in foreign nations that would complement current U.S. research efforts. Payments for these programs will be made in currencies of those nations in which the research projects are taking place, and which the U.S. Treasury determines to be in excess of our nation's normal requirements.

Poland has a large and growing coal industry, with extensive reserves but only small amounts of oil and gas. This has led to a strong research program to develop the needed technology for the conversion of coal to liquids and gases, as over 15 percent of Poland's energy requirements are furnished by imported oil and gas. No nuclear power stations have been installed.

Work on liquefaction of coal in Poland was started in 1966 and within four years a 5 kilogram (11 pounds) per hour development unit was operational. During a subsequent testing program, 15 types of coals have been studied. The specific goal of this program will be to utilize through international cooperation the technological expertise developed by Polish Government specialists in the areas of coal preparation, extraction, liquefaction, and coupling of magneto-hydrodynamics (MHD) to coal gasification. Such activities will tend to corroborate or complement similar research activities conducted by ERDA.

Specific program changes in this program in FY 1976 are discussed in detail below.

1. Extraction/Hydrogenation of Coal — + $5,350 — No Positions

The Ministry of Heavy Industry will be able to combine the efforts of both the Institute of Carbochemistry at Wyr and the Ministerial Institute of Zabreze to conduct an intensive study in extraction of coal, with and without hydrogen addition, to yield high quality synthetic fuels. Alternate systems for separating the undissolved coal and other solids from the extract will be tested and evaluated. At the former institute, considerable effort is being made to enhance the facilities and capabilities. A new laboratory at Wyr to accommodate over 200 workers is nearing completion, as well as a pilot plant able to handle one ton per day for varied coal conversion processes.

The solids leaving the coal separation system will be further processed under the direction of the Institute of Heavy Industry, including low temperature carbonization with combustion of the resulting char in a fluidized-bed boiler.

Liquid material leaving the separation step will be hydrogenated in both a fixed and ebullated bed under varying conditions of temperature and pressure.

As the work proceeds, a plant concept will be established and preliminary engineering will be completed to determine projected plant operating and product costs. Alternate plant concepts will be studied and evaluated. This work will require a minimum of three years.

2. Production of Clean Gas for Use in MHD Power Systems — + $1,300 — No Positions

It is proposed to enlarge and complete a laboratory study at the Gdansk Polytechnik Institute for the use of energy existing from MHD generators for gasification of coal in a two-stage system. This system is unique and offers

the possibility of converting coal to a clean fuel for industrial utilization. Additional testing and experimentation with this proposed study will be undertaken at the University of Danzig in Gdansk and the Institute of Nuclear Research at Swierk. The completion of this enlarged study will require a minimum of three years.

PROPOSED APPROPRIATION LANGUAGE CHANGES - SPECIAL FOREIGN CURRENCY PROGRAM

(Dollars in thousands, except whole dollars in narrative material)

The proposed changes in language are indicated as follows: language enclosed in brackets [ ] indicates proposed deletions, and underscoring _____ indicates proposed insertion of new language.

SPECIAL FOREIGN CURRENGY PROGRAM

For payments in foreign currencies which the Treasury Department shall determine to be excess to the normal requirements of the United States, for necessary expenses of the Energy Research and Development Administration, as authorized by law, $6,650,000, to remain available until expended: Provided, That this appropriation shall be available, in addition to other appropriations, to such office for payment in the foregoing currencies (7 U.S.C. 1704). (Transferred from the Department of the Interior and Related Agencies Appropriation Act, 1975.)

Fossil Fuel and Related Programs - Operating Expenses
Budget Authority Table
(Dollars in Thousands)

	Actual FY 1974		Estimate FY 1975		Estimate FY 1976		Estimate Transition Period	
	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.
I. Fossil Energy Development								
A. Coal								
1. Liquefaction	$ 19,764	$ 46,291	$ 54,632	$ 94,745	$ 96,897	$ 97,562	$ 16,000	$ 28,750
2. High-Btu Gasification	29,415	33,333	57,841	59,805	42,838	63,364	8,700	10,500
3. Low-Btu Gasification	8,442	22,121	22,308	56,480	51,671	45,389	6,500	11,400
4. Advanced Power Systems	20	1,540	3,957	4,097	5,261	6,601	1,300	2,500
5. Direct Combustion	3,509	15,507	20,681	35,887	32,645	38,096	5,100	14,900
6. Advanced Research and Supporting Technology	1,463	9,946	14,780	23,325	32,061	35,393	4,600	8,850
7. Demonstration Plants	0	0	0	0	18,100	37,000	4,100	9,000
Total Coal Program	62,613	128,738	174,199	274,339	279,473	323,405	46,300	85,900
B. Petroleum and Natural Gas								
1. Gas and Oil Extraction	6,695	7,263	16,242	26,369	22,065	24,929	6,730	6,430
2. Gas and Oil Utilization	1,182	1,445	1,025	1,789	1,582	1,797	500	450
Total Petroleum and Natural Gas Program	7,877	8,708	17,267	28,158	23,647	26,726	7,230	6,880
C. Oil Shale								
1. In Situ Processing	2,026	2,308	2,903	3,762	7,034	7,720	2,000	1,950
2. Composition and Characterization	754	922	551	962	1,113	1,265	300	300
Total Oil Shale Program	2,780	3,230	3,454	4,724	8,147	8,985	2,300	2,250
Total Fossil Energy Development	$ 73,270	$140,676	$194,920	$307,221	$311,267	$359,116	$ 55,830	$ 95,030

(Dollars in Thousands)

	Actual FY 1974		Estimate FY 1975		Estimate FY 1976		Estimate Transition Period	
	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.
II. Solar, Geothermal and Advanced Energy Systems Development								
A. Advanced Energy Systems								
1. Magnetohydrodynamics	$ 2,815	$ 7,835	$ 7,584	$ 12,995	$ 13,773	$ 13,544	$ 2,200	$ 2,300
2. Fuel Cells	0	400	500	600	500	600	200	0
3. Supporting Activities	1,345	1,205	4,200	5,600	8,900	10,900	1,630	1,930
Total Advanced Energy Systems	4,160	9,440	12,284	19,195	23,173	25,044	4,030	4,230
Total Solar, Geothermal and Advanced Energy Systems Development	$ 4,160	$ 9,440	$ 12,284	$ 19,195	$ 23,173	$ 25,044	$ 4,030	$ 4,230
III. Conservation Research and Development								
A. Advanced Automotive Power Systems								
1. Power Systems Evaluations	1,000	7,100	3,350	3,380	5,670	6,240	1,200	1,350
2. Propulsion Systems Improvements	400	2,000	680	680	1,400	1,700	500	555
3. Alternative Fuel Utilization	100	315	260	260	500	700	200	230
4. Supporting Research and Development	0	0	200	200	670	800	160	175
Total Advanced Automotive Power Systems Program	1,500	9,415	4,490	4,520	8,240	9,440	2,060	2,310

(Dollars in Thousands)

	Actual FY 1974		Estimate FY 1975		Estimate FY 1976		Estimate Transition Period	
	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.	Costs	Budget Auth.
III. Conservation Research and Development Continued								
B. End Use Conservation								
1. Conservation in Buildings	$ 0	$ 0	$ 0	$ 0	$ 1,000	$ 1,750	$ 450	$ 450
2. Conservation in Industrial Processes	0	0	0	0	1,000	1,750	450	450
3. Conservation in Consumer Products	0	0	0	0	350	500	25	25
4. Support Systems Studies	0	0	0	0	650	1,000	75	75
Total End Use Conservation Program	0	0	0	0	3,000	5,000	1,000	1,000
Total Conservation Research and Development	$ 1,500	$ 9,415	$ 4,490	$ 4,520	$ 11,240	$ 14,440	$ 3,060	$ 3,310
Subtotal	78,930	159,531	211,694	330,936	345,680	398,600	62,920	102,570
Changes in Selected Resources	27,683	0	174,018	0	52,920	0	39,650	0
Unobligated Balance Brought Forward .	-1,890	0	-54,776	0	0	0	0	0
Unobligated Balance Carried Forward .	54,776	0	0	0	0	0	0	0
Unobligated Balance Lapsing	32	0	0	0	0	0	0	0
Total Budget Authority	$159,531	$159,531	$330,936	$330,936	$398,600	$398,600	$102,570	$102,570

Fossil Fuel and Related Programs - Plant and Capital Equipment
Budget Authority Table
(Dollars in Thousands)

	Actual FY 1974		Estimate FY 1975		Estimate FY 1976		Estimate Transition Period	
	Obligations	Budget Auth.	Obligations	Budget Auth.	Obligations	Budget Auth.	Obligations	Budget Auth.
I. Fossil Energy Development								
A. Coal								
Capital Equipment								
Other Capital Equipment	$ 0	$ 0	$ 150	$ 150	$ 0	$ 0	$ 0	$ 0
Total Capital Equipment Obligations	0	0	150	150	0	0	0	0
Construction Projects - Total Obligations	0	0	13,000	13,000	20,000	20,000	8,000	8,000
Total Coal Program	$ 0	$ 0	$ 13,150	$ 13,150	$ 20,000	$ 20,000	$ 8,000	$ 8,000
B. Petroleum and Natural Gas								
Capital Equipment								
Other Capital Equipment	$ 134	$ 134	$ 35	$ 35	$ 100	$ 100	$ 100	$ 100
Total Capital Equipment Obligations	134	134	35	35	100	100	100	100
Construction Projects - Total Obligations	0	0	0	0	0	0	0	0
Total Petroleum and Natural Gas Program	$ 134	$ 134	$ 35	$ 35	$ 100	$ 100	$ 100	$ 100
C. Oil Shale								
Capital Equipment								
Other Capital Equipment	$ 25	$ 25	$ 75	$ 75	$ 325	$ 325	$ 100	$ 100
Total Capital Equipment Obligations	25	25	75	75	325	325	100	100
Construction Projects - Total Obligations	0	0	0	0	0	0	0	0
Total Oil Shale Program	$ 25	$ 25	$ 75	$ 75	$ 325	$ 325	$ 100	$ 100

OPERATING EXPENSES

FOSSIL FUEL AND RELATED PROGRAMS

OBJECT CLASSIFICATION (In Thousands of Dollars)

Identification Code: 19-00-0100-0-1-999		FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Personnel compensation:					
11.1	Permanent positions	$ 6,954	$ 8,901	$ 9,243	$ 2,440
11.3	Positions other than permanent	236	256	256	70
11.5	Other personnel compensation	92	95	95	25
	Total personnel compensation	7,282	9,252	9,594	2,535
Personnel benefits:					
12.1	Civilian	514	934	891	240
21.0	Travel and transportation of persons	99	118	297	80
22.0	Transportation of things ..	274	402	472	100
23.0	Rent, communications, and utilities	358	515	1,017	250
24.0	Printing and reproduction .	193	387	451	100
25.0	Other services	62,192	187,811	326,787	58,085
26.0	Supplies and materials	524	3,184	2,255	560
31.0	Equipment	1,038	2,421	3,048	750
32.0	Lands and structures	5,995	6,222	310	80
41.0	Grants, subsidies, and contributions	461	448	558	140
	Total costs, funded	78,930	211,694	345,680	62,920
94.0	Change in selected resources	27,683	174,018	52,920	39,650
	Total direct obligations ..	106,613	385,712	398,600	102,570

OPERATING EXPENSES

FOSSIL FUEL AND RELATED PROGRAMS

OBJECT CLASSIFICATION (In Thousands of Dollars)

Identification Code: 19-00-0100-0-1-999	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
Reimbursable obligations:				
Personnel compensation:				
11.1 Permanent positions	$ 1,152	$ 1,206	$ 1,230	$ 325
Personnel benefits:				
12.1 Civilian	99	103	104	30
21.0 Travel and transportation of persons	17	17	17	5
25.0 Other services	294	274	309	55
Total costs, funded	1,562	1,600	1,660	415
94.0 Change in selected resources	-	-	-	-
Total reimbursable obligations	1,562	1,600	1,660	415
99.0 Total obligations	108,175	387,312	400,260	102,985

PLANT AND CAPITAL EQUIPMENT

FOSSIL FUEL AND RELATED PROGRAMS

OBJECT CLASSIFICATION (In Thousands of Dollars)

Identification Code: 19-00-0130-0-1-999	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate	July 1 - Sept. 30, 1976
31.0 Equipment	$ 671	$ 198	$ 339	$ 150
32.0 Lands and structures	-	3,000	9,000	3,500
Total cost, funded	671	3,198	9,339	3,650
94.0 Change in selected resources	-512	10,062	11,086	4,550
99.0 Total obligations	159	13,260	20,425	8,200

FY 1976 Budget Estimates
Permanent Positions
End of Year Ceilings

	FY 1974	FY 1975	FY 1976
FOSSIL ENERGY DEVELOPMENT			
Direct Employment			
Coal Program			
Liquefaction	123	123	123
High-Btu Gasification	105	99	99
Low-Btu Gasification	52	52	55
Advanced Power Systems	0	21	21
Direct Combustion	62	65	68
Advanced Research and Supporting Tech.	53	53	55
Demonstration Plants	0	0	0
Total Coal Program	395	413	421
Petroleum and Natural Gas Program			
Gas and Oil Extraction	71	79	80
Gas and Oil Utilization	66	72	72
Total Petroleum and Natural Gas Program	137	151	152
Oil Shale Program			
In-Situ Processing	37	41	42
Composition and Characterization	28	29	29
Total Oil Shale Program	65	70	71
Total Direct Employment	597	634	644
Program Support	123	340	423
TOTAL FOSSIL ENERGY DEVELOPMENT	720	974	1,067
SOLAR, GEOTHERMAL, AND ADVANCED SYSTEMS DEVELOPMENT			
Direct Employment			
Advanced Energy Systems Research Program			
Magnetohydrodynamics	16	16	16
Fuel Cells	0	0	0
Supporting Activities	0	0	0
TOTAL SOLAR, GEOTHERMAL, AND ADVANCED SYSTEMS DEVELOPMENT	16	16	16
CONSERVATION RESEARCH AND DEVELOPMENT			
Program Support			
Advanced Auto Power Systems	17	17	17
REIMBURSABLE WORK	91	91	91
TRUST FUND	20	20	20
TOTAL FULL-TIME EMPLOYMENT[1/]	864	1,118	1,211

1/ These estimates exclude employees providing support for administrative activities such as accounting, budgeting, auditing, personal services, security, safety, contracting, legal and other administrative services.

Construction Project Data Sheet

(Dollars in thousands, except whole dollars in narrative material)

Office of Coal Research

Fossil Energy Development
Coal Program

1. Title and Location of Project: Clean boiler fuel demonstration plant (A-E and long-lead procurement)

2. Project No. 76-1-a

3. Date A-E Work Initiated: 3rd Qtr. FY 1975

3a. Date Physical Construction Starts: 1/

4. Date Construction Ends: 1/

1/ Authorization of $28,000,000 for A-E and long-lead procurement only.

5. Previous Cost Estimate:
Date: $ None

6. Current Cost Estimate:

Date 12/74	$41,000,000
Less Amount Approp. to OCR thru FY 1975	13,000,000
Net Cost Estimate	$28,000,000

7. Financial Schedule:

Fiscal Year	Authorization	Appropriation	Obligations	Costs
1976	$ 20,000	$ 20,000	$ 20,000	$ 9,000
Transition Period	8,000	8,000	8,000	3,500
1977	0	0	0	11,000
1978	0	0	0	4,500

8. Brief Physical Description of Project:
This project provides for a chemical process plant to convert high sulfur coal to a clean liquid fuel. The plant is expected to process 100 tons of coal per hour to yield about 4,000 barrels per day of "oil" and 22 million cubic feet of pipeline quality gas. The "oil" expected to be produced will be sufficient to fuel a 125-175 megawatt power plant. Initial funding is needed for architect-engineering (A-E) design services and to place long-lead-time items of equipment on order to insure their availability to meet the established schedule for completion of the final plant. Long-lead-time equipment items include special instruments, high capacity compressors, heavy walled pressure vessels, air separation plants, and special support equipment required in each of these major areas.

9. Purpose, Justification of Need for and Scope of Project:
The Clean Boiler Fuel Demonstration Plant is intended to accelerate the commercialization of economically attractive processes for the conversion of coal to clean, environmentally acceptable fuels at high efficiency. Work will be undertaken consistent with the progress attained by both the private sector and the Government in data gathering operational phases of pilot plants. This demonstration plant will be capable of converting typical high-sulfur Eastern bituminous coals to environmentally satisfactory low-sulfur, low-ash, boiler fuel. The plant will demonstrate both the technical and economic feasibility of processes to remove sulfur from coal. The products produced by the plant will be tested using commercial equipment.

(Dollars in thousands, except whole dollars in narrative material)

76-1-a Clean boiler fuel demonstration plant (A-E and long-lead procurement)

Fossil Energy Development
Coal Program

The scope of the current project is limited to A-E services and selected long-lead procurement.

In addition, approximately $22,000,000 of research and development costs in the operating expense appropriation ($7,000,000 in FY 1975, $10,000,000 in FY 1976, and $5,000,000 in FY 1977) are associated with design and construction of this project. Upon completion of construction of the plant, annual operating costs are estimated at $15,000,000. It is anticipated these operating costs will be shared 50-50 by industry and government.

10. Details of Cost Estimates:
The estimated cost for A-E services and long-lead procurement is $20,000,000 ($10,000,000 for A-E services and $10,000,000 for procurement) in FY 1976 and $8,000,000 ($3,000,000 for A-E and $5,000,000 for procurement) in the Transition Period. The preliminary estimate of the total project cost for the demonstration plant is about $166,000,000, consisting of approximately $16,000,000 for A-E design and inspection and $150,000,000 for construction. This estimate does not include escalation and is based on current dollars. Included within the above total project cost of $166,000,000 is $13,000,000 appropriated through FY 1975 to the Office of Coal Research ($3,000,000 for design and $10,000,000 for long-lead procurement).

The design and inspection costs for the project will be fully borne by the Government. Construction costs are anticipated to be shared 50 percent by industry and 50 percent by the Government. The Federal Government's share of the total project, including design, is estimated at $91,000,000 and the industry share is $75,000,000. After deducting funds available through FY 1975 and the requested FY 1976 and Transition Period estimates, the estimated Federal share to complete the project is $50,000,000.

11. Method of Performance:
Design will be performed under a negotiated architect-engineer contract. Construction will be accomplished under a cost plus fixed fee contract utilizing fixed price subcontracts awarded on the basis of competitive bidding to the extent feasible.

FY 1976 Budget Estimates
Five-Year Projections
(Dollars in Thousands)
FOSSIL FUEL AND RELATED PROGRAMS

FOSSIL ENERGY DEVELOPMENT	Estimate FY 1976	Estimate Transition Period	FY 1977	FY 1978	FY 1979	FY 1980
Coal						
Operating Expenses:						
Budget Authority	$323,405	$ 85,900	$457,700	$389,200	$312,000	$210,300
Budget Outlays	279,473	46,300	474,300	385,800	359,200	196,000
Construction:						
Budget Authority	20,000	8,000	98,000	131,500	30,000	-
Budget Outlays	9,000	3,500	60,000	122,000	16,000	72,000
Petroleum and Natural Gas						
Operating Expenses:						
Budget Authority	26,726	6,880	25,700	25,000	26,000	26,700
Budget Outlays	23,647	7,230	23,600	25,000	26,000	26,700
Capital Equipment:						
Budget Authority	100	100	) detail not available			
Budget Outlays	75	75				
Oil Shale						
Operating Expenses:						
Budget Authority	8,985	2,250	9,600	9,700	9,700	9,800
Budget Outlays	8,147	2,300	9,600	9,700	9,700	9,800
Capital Equipment:						
Budget Authority	325	100	) detail not available			
Budget Outlays	264	75				

(Dollars in Thousands)

FOSSIL ENERGY DEVELOPMENT - (cont'd.)	Estimate FY 1976	Estimate Transition Period	FY 1977	FY 1978	FY 1979	FY 1980
Fossil Energy Development Totals						
Operating Expenses:						
Budget Authority	$359,116	$ 95,030	$493,000	$423,900	$347,700	$246,800
Budget Outlays	311,267	55,830	507,500	420,500	394,900	232,500
Capital Equipment:						
Budget Authority	425	200	700	700	700	700
Budget Outlays	339	150	400	400	700	700
Construction:						
Budget Authority	20,000	8,000	98,000	131,500	30,000	-
Budget Outlays	9,000	3,500	60,000	122,000	16,000	72,000
SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS DEVELOPMENT						
Advanced Energy Systems Research						
Magnetohydrodynamics						
Operating Expenses:						
Budget Authority	$ 13,544	$ 2,300	$ 13,100	$ 13,200	$ 13,200	$ 13,200
Budget Outlays	13,773	2,200	13,100	13,200	13,200	13,200
Fuel Cells						
Operating Expenses:						
Budget Authority	600	-	-	-	-	-
Budget Outlays	500	200	-	-	-	-

(Dollars in Thousands)

SOLAR, GEOTHERMAL, AND ADVANCED ENERGY SYSTEMS DEVELOPMENT (cont'd.)	Estimate FY 1976	Estimate Transition Period	FY 1977	FY 1978	FY 1979	FY 1980
Supporting Activities						
Operating Expenses:						
Budget Authority	$ 10,900	$ 1,930	$ 10,300	$ 10,800	$ 11,300	$ 11,300
Budget Outlays	8,900	1,630	10,300	10,800	11,300	11,300
Solar, Geothermal, and Advanced Energy Systems Development Totals						
Operating Expenses:						
Budget Authority	25,044	4,230	23,400	24,000	24,500	24,500
Budget Outlays	23,173	4,030	23,400	24,000	24,500	24,500
CONSERVATION RESEARCH AND DEVELOPMENT						
Advanced Automotive Power Systems						
Operating Expenses:						
Budget Authority	$ 9,440	$ 2,310	$ 8,000	$ 7,700	$ 7,500	$ 7,200
Budget Outlays	8,240	2,060	8,000	7,700	7,500	7,200
End Use Energy Conservation Research and Development						
Operating Expenses:						
Budget Authority	5,000	1,000	4,000	5,000	5,000	5,000
Budget Outlays	3,000	1,000	4,000	5,000	5,000	5,000
Conservation Research and Development Totals						
Operating Expenses:						
Budget Authority	14,440	3,310	12,000	12,700	12,500	12,200
Budget Outlays	11,240	3,060	12,000	12,700	12,500	12,200

(Dollars in Thousands)

TOTALS	Estimate FY 1976	Estimate Transition Period	FY 1977	FY 1978	FY 1979	FY 1980
Operating Expenses Totals						
Budget Authority	$398,600	$102,570	$528,400	$460,600	$384,700	$283,500
Budget Outlays	345,680	62,920	542,900	457,200	431,900	269,200
Capital Equipment Totals						
Budget Authority	425	200	700	700	700	700
Budget Outlays	339	150	400	400	700	700
Construction Totals						
Budget Authority	20,000	8,000	98,000	131,500	30,000	-
Budget Outlays	9,000	3,500	60,000	122,000	16,000	72,000

FEDERAL ENERGY ADMINISTRATION

Appropriation, Fiscal Year 1974:

Interior and Related Agencies Appropriation Act, 1974 (PL 93-120):	
- Fuel Allocation, Oil & Gas Programs	2,585,000
Supplemental Appropriation Act, 1974 (PL 93-245):	
- Federal Energy Office	9,360,000
- Fuel Allocation, Oil & Gas Programs	33,545,000
Second Supplemental Appropriation Act, 1974 (PL 93-305):	
- Fuel Allocation, Oil & Gas Programs	18,000,000
Transferred to Operating Expenses, Public Building Service, General Services Administration	- 5,000
Transferred from:	
- Office of the Secretary, Interior, Salaries & Expenses	8,300,000
- Office of the Solicitor, Interior, Salaries & Expenses	692,000
- Economic Stabilization Activities	1,000,000
Total budget authority, 1974	73,477,000

Appropriation, Fiscal Year 1975:

Special Energy Research and Development Appropriation Act, 1975 (PL 93-322):	
- Federal Energy Office	19,000,000
- Fuel Allocation, Oil & Gas Programs	69,590,000
- Energy Conservation and Analysis	26,875,000
Transferred from Department of the Interior:	
- Office of the Solicitor	1,285,000
- Oil Import Appeals Board	85,000
Total Appropriations, 1975	116,835,000
Supplemental Appropriation Act, 1975 (PL 93-554)	8,000,000
Pay supplemental, pending	2,200,000
Total available and pending, 1975	127,035,000
Supplemental now requested ($9 million of which will require additional authorizing legislation)	(15,000,000)
Total estimate, 1975	(142,035,000)

Budget Estimate, Fiscal Year 1976:

- Federal Energy Administration (Budget to Congress)	112,435,000
- Proposed legislation, proposed for later transmittal	(75,000,000)
Total estimate, 1976	(187,435,000)

Summary of Positions, Man-Years and Obligations
Fiscal Years 1974-76

	1974 actual	1975 estimate	1976 estimate	Increase or decrease (-)
			Positions	
Executive direction and administration	N.A.	577	413	- 164
Energy policy and analysis	N.A.	366	355	- 11
Regulatory programs	N.A.	1,750	462	-1,288
Energy conservation and environment	N.A.	183	200	+ 17
Energy resource development	N.A.	205	244	+ 39
International energy affairs	N.A.	44	41	- 3
Total - Positions	3,075	3,125	1,715	-1,410
			Man-Years	
Executive direction and administration	N.A.	585	489	- 96
Energy policy and analysis	N.A.	370	377	+ 7
Regulatory programs	N.A.	1,749	931	- 818
Energy conservation and environment	N.A.	174	195	+ 21
Energy resource development	N.A.	205	244	+ 39
International energy affairs	N.A.	50	47	- 3
Total - Man-years	596	3,133	2,283	- 850
			Amount ($000)	
Executive direction and administration	$ N.A.	$ 34,887	$ 30,452	-4,435
Energy policy and analysis	N.A.	20,017	23,574	+3,557
Regulatory programs	N.A.	41,954	21,749	-20,205
Energy conservation and environment	N.A.	17,906	25,066	+7,160
Energy resource development	N.A.	10,765	10,208	- 557
International energy affairs	N.A.	1,506	1,386	- 120
Total - Obligations	73,833	127,035	112,435	-14,600
Receipts and reimbursements from: Federal funds	- 483	...	...	...
Unobligated balance lapsing	127	...	...	...
Total Budget Authority	73,447	127,035	112,435	-14,600

Summary of Positions, Man-Years and Obligations
Fiscal Years 1974-1976

Activity Account	Positions				Man-Years				Amount (in thousand of dollars)				
				Increase or				Increase or				Increase or Decrease (-)	
	1974	1975	1976	Decrease (-)	1974	1975	1976	Decrease (-)	1974	1975	1976	Amount	Percent
Executive Direction & Administration:													
Administrator	N.A.	26	22	- 4	N.A.	26	23	- 3	N.A.	$ 3,754	$ 897	- 2,857	- 76.1
Management & Administration	N.A.	242	162	- 80	N.A.	242	228	- 14	N.A.	7,095	4,978	- 2,117	- 29.8
General Counsel	N.A.	78	65	- 13	N.A.	75	69	- 6	N.A.	2,034	1,779	- 255	- 12.5
Public Affairs	N.A.	110	100	- 10	N.A.	117	100	- 17	N.A.	2,977	3,499	+ 522	+ 17.5
Congressional Affairs	N.A.	40	29	- 11	N.A.	40	34	- 6	N.A.	775	565	- 210	- 27.1
Intergovernmental, Regional and Special Programs	N.A.	35	35	...	N.A.	37	35	- 2	N.A.	1,242	2,539	+ 1,297	+104.4
Reimbursement for State Energy Programs	...	...	...	...	...	...	...	...	($5,000)	10,000	10,000	...	...
Consolidated Account	N.A.	46	...	- 46	N.A.	48	...	- 48	N.A.	7,010	6,195	- 815	- 11.6
Total, Exec. Dir. & Admin.	N.A.	577	413	- 164	N.A.	585	489	- 96	N.A.	34,887	30,452	- 4,435	- 12.7
Energy Policy & Analysis:													
Policy and Analysis	N.A.	366	355	- 11	N.A.	370	377	+ 7	N.A.	20,017	23,574	+ 3,557	+ 17.8
Regulatory Programs:													
Operations, Regulations and Compliance	N.A.	305	103	- 202	N.A.	305	184	-121	N.A.	10,550	4,929	- 5,621	- 53.3
Private Grievances and Redress	N.A.	55	39	- 16	N.A.	54	47	- 7	N.A.	1,186	997	- 189	- 15.9
Regions	N.A.	1,390	320	-1,070	N.A.	1,390	700	-690	N.A.	30,218	15,823	-14,395	- 47.6
Total Regulatory Programs	N.A.	1,750	462	-1,288	N.A.	1,749	931	-818	N.A.	41,954	21,749	-20,205	- 48.2
Conservation & Environment:													
Conservation and Environment	N.A.	183	200	+ 17	N.A.	174	195	+ 21	N.A.	17,906	25,066	+ 7,160	+ 40.0
Energy Resource Development:													
Energy Resource Development	N.A.	205	244	+ 39	N.A.	205	244	+ 39	N.A.	10,765	10,208	- 557	- 5.2
International Energy Affairs:													
International Energy Affairs	N.A.	44	41	- 3	N.A.	50	47	- 3	N.A.	1,506	1,386	- 120	- 8.0
TOTAL, FEA	3,075	3,125	1,715	-1,410	596	3,133	2,283	-850	73,833	127,035 1/	112,435 2/	-14,600	- 11.5

1/ Does not include $15,000,000 supplemental proposed for later transmittal pending authorizing legislation.
2/ Does not include $75,000,000 budget amendment proposed for later transmittal - proposed legislation.

GENERAL STATEMENT

Introduction:

The era of abundant, inexpensive energy ended abruptly for the United States late in 1973 with the imposition of the embargo by oil exporting nations. Our production of domestic energy has been decreasing: coal production peaked in 1947, domestic exploration for oil and natural gas began to decline a decade later, and, since 1970 oil and gas production has been decreasing. But, for most Americans, the embargo provided the first sign that the United States was no longer self-sufficient in energy and that it was, in fact, vulnerable to supply interruptions.

It was in this atmosphere of crisis that the Federal Energy Administration came into being, first, by Executive Order, as the Federal Energy Office and, later, by Congressional action, as a new agency of the Federal Government.

At the outset, FEA dealt with the emergencies of the moment -- emergencies that arose from the embargo and the resulting shortages of petroleum products. At the same time it began to address the equally difficult problems of the Nation's energy future. For the short-term those problems involve conservation of energy to lessen our dependence on imported oil and to reduce the deficits that have resulted from dramatic increases in oil prices during the past year. For the mid-term -- the next decade -- those problems involve continued and improved conservation as well as increased domestic production of conventional forms of energy, such as coal, oil and natural gas, to eliminate that dependence by 1985. For the long-term -- the last quarter of the century -- those problems involve development of new energy sources to enable the Nation to become an energy exporter by the year 2000.

As it addresses these problems of energy conservation and energy development the FEA must operate within the context of our many national aspirations and goals. While we as a Nation must strive to attain energy independence, we must do so without causing social, environmental or economic jeopardy. Conservation measures must be realistic and equitable. Development efforts must be rational and balanced. Similarly, activities of the FEA must be consistent with international realities and U.S. foreign policy goals.

Americans are becoming increasingly aware that their days of energy profligacy are over and that they will for years and decades to come be grappling with problems that have never before confronted them. The FEA's fundamental mission now and in the future will be to formulate energy policies that will most effectively solve those problems. At the same time it must continue to be the coordinating agency within the Federal Government that assures the coherent and consistent execution of our national energy policies and that supplies to other segments of the Government, such as the Energy Resources Council, that support which is necessary to their effective functioning.

As a young agency, the FEA has had growing pains. The crisis of a year ago demanded stringent emergency actions: allocation and other Government control of limited supplies of petroleum products. Today, we must increasingly address the need for energy conservation and development.

FEA's budget for Fiscal Year 1976 reflects this shift in emphasis as we move into the post-crisis period of meeting our mid-term and long-term energy goals.

Major objectives and accomplishments for Fiscal Year 1975

Some of the Federal Energy Administration's major accomplishments in fiscal year 1975 include:

- The establishment, organization and staffing of the Administration - the first new Federal agency to be created since 1970 - to achieve the objectives of Public Law 93-275, the Federal Energy Administration Act of 1975.

- The development and management of the Project Independence Studies and Report - the most comprehensive and sophisticated energy analyses and forecasts ever undertaken by the Federal Government.

- The development, implementation and enforcement of 12 major regulatory allocation and price control programs to achieve the objectives of the Emergency Petroleum Allocation Act.

- The implementation of the Energy Supply and Environmental Coordination Act of 1974, (P.L. 93-319), which discourages the use of natural gas and petroleum products and encourages increased and continued use of coal. Activities include drafting and issuing regulations governing information gathering and mandatory coal conversions.

- The provision of staff support for the Energy Resources Council, created by the Energy Research and Development Act of 1974 (P.L. 93-438). The FEA Administrator is Executive Director of the Energy Resources Council, the function of which is to act as the coordinating body for all energy policy and programs of the Federal Goverment.

- The drafting of legislation and testimony on all aspects of the nation's energy problems, including: material, labor, and equipment shortages; approaches to energy conservation; deepwater ports; surface mining and reclamation; the financial requirements of the electric utility industry; impact of the embargo upon various social, economic and geographic sectors; facilities siting; international implications of U.S. energy policy; and the deregulation of natural gas.

- The provision of support to the Department of State in achieving the U.S.-Soviet Energy Agreement and the International Energy Program Agreement.

- The disbursement of $10,000,000 to the States for funding State programs in energy management, fuel allocation, energy conservation, and energy resource development.

- The consolidation of all automatic data processing resources throughout FEA for an estimated savings of $2.8 million in FY 1975 and a projected FY 1976 savings of $7.6 million.

- The establishment of the National Energy Information Center, enabling the Federal Government to collect, process, analyze and act as a clearinghouse for energy data and statistics, independent of industry-controlled sources.

- The determination of the energy conservation potential and the implementation of energy conservation programs in the transportation, industrial, building and utilities sectors. Under these programs energy conservation agreements have been reached with the 10 most energy-intensive industries, on their processes; and with the automobile industry on a campaign to improve gasoline mileage by 40% by model year 1979; a lighting and thermal operations program to reduce energy consumption in commercial buildings 300,000 barrels a day equivalent by the close of 1975. Further, demonstration and public education projects have begun in energy conservation by the Federal Government, electric utilities and in all parts of the private sector.

Major objectives, activities and programs for Fiscal Year 1976:

- Continuation of mandated responsibilities in accordance with the Federal Energy Administration Act, the Emergency Petroleum Allocation Act, Energy Supply and Environmental Coordination Act, the Energy Research and Development Act, the National Environmental Policy Act and other legislation as relevant to the FEA mission.

- Coordination and implementation of the proposed Energy Independence Act which was forwarded to Congress on January 29, 1975. This bill contains thirteen titles and will, when enacted, initiate or accelerate programs to increase domestic energy supply, reduce consumption, revise energy-related regulations and taxes, and provide authority for emergency preparedness measures.

- Implementing monitoring programs for energy use and savings in major industries such as petroleum refining, paper, steel, aluminum, chemicals, cement, glass, copper, meat packing and bakery products.

- Continuation of analytical efforts on policy alternatives, short- and long-term forecasting, economic and social impact studies, and refinement of forecasting models.

- Phase out of the National Office and Regional Compliance and Enforcement activities, assuming the expiration of all price and allocation controls in FY 76; the preparation of contingency enforcement programs in the event controls are reinstated; and implementation of other compliance strategies and programs as required by FEA.

- The continuation of on-site audits, investigations, and inspections at the refinery level. The validation and review of actual product costs and profits between different marketing areas and levels.

- Substantial expansion of electric utility demonstration projects together with developing energy conservation guidelines for State utility commissions.

Initiation of detailed planning and analysis of the one-billion barrel national emergency storage system.

- Development of new data systems covering coal reserves, coal production, new coal mines, nuclear fuel, the consumption of energy, and wholesale and retail fuel prices.

- Expansion of the programs to achieve retrofit of existing commercial and residential buildings, an essential effort because of the buildings now in use will still be used in 1990.

- Developing and implementing energy performance standards for appliances.

- Conduct of market structure and price impact studies upon the basic energy producing industries (petroleum, gas, coal) and the major energy conversion industry (electric utilities).

- Development and implementation of regulations, based on revised legislation as required, that will protect the market shares of small and independent retailers and refiners during periods of adequate product supplies.

- Disbursement of $10,000,000 to the States to fund State energy office programs; thereby ensuring their continued involvement in the development and implementation of national energy policy and programs.

- Development of recommendations on new or modified Federal, State, and local programs to alleviate the adverse effects of energy shortages on consumers, the poor, the elderly, and the handicapped.

- Expansion of domestic production of major fuel sources through increasing the domestic production of oil, gas, and coal; expediting new powerplant construction and increasing the productivity and reliability of operating powerplants; the promotion of shale conversion and synthetic fuel development, the provision of financial and other incentives for increasing production; expediting energy resource site selection and land use planning; and coordinating the implementation of Project Independence energy supply programs.

- Study and development of legislative and administrative initiatives for strengthening the state of the utilities industry including consideration of rate structures, price effects, financial mechanism, conservation, environment and R&D potentials.

- Implementation of programs to achieve, monitor and report (to Congress and the public) major gains in energy conservation in both the public and private sector.

- Continuation of work to ensure that FEA meets its statutory requirements under the National Environmental Policy Act, to ensure FEA programs and projects are environmentally sound, and to provide a base for FEA work with other Federal agencies in assessing alternate energy sources and the energy efficiency of Federal projects.

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- Further development of programs for conversion of boilers from oil and gas to coal; performance standards for industrial equipment, e.g., motors, pumps, compressors; and increased in-plant electrical generation.

- Intensification and expansion of efforts to gain voluntary adherence to Federal lighting and thermal guidelines to obtain energy savings equivalent to 200,000 barrels a day.

- Assessment of increased energy demand resulting from the Federal Water Pollution Control Act and the Clean Air Act to identify the tradeoffs between the environmental benefits from reduced emissions or effluents and the energy benefits of production.

- Development, based on new legislation, of an emergency storage program to insulate the U.S. economy from future oil embargoes and of standby allocation and rationing programs to cope with supply interruptions pending completion of the storage programs.

- Expansion of FY-75 public education efforts and developing new programs to familiarize consumers with such issues as life-cycle cost considerations, making better purchase decisions, and better energy using habits.

- Continuation of participation in and the provision of technical support to the International Energy Agency and the NATO Petroleum Planning Committee.

- Continuing participation in the on-going work of the U.S.-Soviet Energy Agreement with particular emphasis on energy information exchange.

- Conclusion of a major long-term assessment of the international market in world energy resources and the development of specific recommendations on future U.S. energy trade policy options.

- Development of proposals designed to create special relationships on a bilateral basis between the U.S. and major producing countries.

Allocation of resources:

The Federal Energy Administration program is composed of six budget activities. A description of these activities with the appropriation request for each is as follows:

1. Executive direction and administration. - This activity comprises the executive, managerial and support personnel whose functions are applicable to the proper execution of the responsibilities of the Administration as a whole. These positions and functions include: the Administrator and Deputy Administrators and their direct office staffs, all legal, financial, personnel and procurement services, as well as public affairs, Congressional affairs, and intergovernmental and field activity coordination.

To carry out the responsibilities under this activity will require 413 positions and $30,452,000 in fiscal year 1976. The funds requested include $10,000,000 for reimbursement for State energy programs.

2. Energy policy and analysis. - This activity includes the coordination of Federal energy policy studies and analyses, both short- and long-range. It also includes, for example, the development of a national energy plan, for submittal to Congress, continuation of an independent Federal center for gathering and assessing energy data, short and long-range supply/demand forecasting, coordination of energy-related programs, policies, and legislation, development of deregulation and decontrol strategies, and provisions for all ADP support for FEA, including such things as energy statistics, allocation data systems, and providing a national energy data clearinghouse.

   These responsibilities require 355 positions and $34,574,000 in fiscal year 1976 as compared to 366 positions and $20,017,000 in FY 1975.

3. Regulatory programs. - This activity includes development and implementation of mandatory allocation and price regulations, in accordance with the mandate of the Emergency Petroleum Allocation Act; execution of those audit and enforcement activities required to assure compliance with regulations; and design of standby programs to cope with future supply emergencies. Major emphasis in fiscal year 1976 will be on protecting market shares of independent retailers and refiners after the Emergency Petroleum Allocation Act expires on August 31, 1975.

   Requirements under this activity are 462 positions and $21,749,000 in fiscal year 1976, as compared to 1975 levels of 1,750 positions and $41,954,000. This request assumes that the Petroleum Allocation Act will expire, as presently scheduled, on August 31, 1975. If the EPAA is extended, these positions and funds will be grossly inadequate.

4. Energy conservation and environment. - This activity responds to the unique charter of the Federal Energy Administration to reduce the rate of energy demand growth and fulfills FEA's responsibilities under the National Environmental Policy Act. It develops information through economic and policy analysis, promotes efficiencies in the use and development of energy resources, and provides policy analysis on environmental issues. Developing and implementing new governmental programs to reduce energy demand in transportation, building, industrial and utilities areas, developing and conducting public education and multimedia campaigns in support of energy conservation programs, and providing technical and program support on energy conservation to States and localities are among the major efforts of this activity.

The resources required under this heading are 200 positions and $25,066,000 in fiscal year 1976. The figures compare with 183 positions and $17,906,000 in FY 1975.

5. Energy resource development. - This activity involves the creation, development, and implementation of programs to increase domestic availability of energy through greater domestic production, implementation of the Energy Supply and Environmental Coordination Act of 1974 (coal conversion), reduction of production bottlenecks, increased efficiency of energy conversion, development of financial incentives for energy, and the appropriate planning for energy facility needs, consistent with environmental requirements. It also develops the integrated program management activities associated with the domestic energy fuel mix necessary to satisfy the national policy objectives of energy self-sufficiency.

   This is accomplished by identifying action plans to expand domestic production of each fuel source, development of incentive programs to encourage the expansion of national energy sources and conversion facilities, assisting in the accelerated development of domestic resources through the mitigation or removal of impediments imposed by Federal regulations. Monitors, analyzes, and assesses the impact of present and prospective energy supply alternatives, technologies, and resource requirements, consistent with energy supply policy objectives.

   The resources required in this activity are 244 positions and $10,208,000 in fiscal year 1976. The figures for fiscal year 1975 were 205 positions and $10,765,000.

6. International energy affairs. - This activity deals with general policy review and coordination of all FEA international activities, national security council matters, international agreements, multinational energy negotiations, transportation of energy from abroad, and liaison with defense and nuclear energy agencies. This includes the development of policy options for oil sharing, mandatory conservation, energy supply, and encouraging multinational conservation, multinational energy programs, and development and evaluation of U.S. export-import options.

   To carry out the responsibilities under this activity will require 41 positions and $1,386,000 in fiscal year 1976, as compared to 44 positions and $1,506,000 in fiscal year 1975.

Summary:

A summary comparison of the positions, man-years, and obligations for Fiscal Year 1974-76 is presented below:

Item	1974 Actual	1975 Estimate	Change		1976 Estimate	Change	
			Amount	%		Amount	%
Positions	3,075	3,125	+ 50	+ 2	1,715	- 1,410	- 45
Man-Years	596	3,133	+ 2,537	+426	2,283	- 850	- 27
Obligations ($000)	73,833	127,035	+53,202	+ 72	112,435	- 14,600	- 11

The FY 1975 obligations of $127,035,000 does not include a $15,000,000 supplemental proposed for later transmittal, pending authorizing legislation. The supplemental request will include:

- $1,000,000 for additional policy planning for the development of a strategic energy reserve system,
- $5,000,000 to expand FEA's public information and education program in support of energy conservation, and
- $9,000,000 for grants to initiate a winterizing program for dwellings of low income persons (need authorizing legislation).

The Fiscal Year 1976 budget request of $112,435,000 does not include a $75 million budget amendment proposed for later transmission along with proposed legislation. The FY 76 budget amendment will consist of requests for:

- $55 million to continue the program for winterizing the dwellings of low-income persons, and
- $20 million to implement an energy facilities siting program.

Budget Justification by Program Activity:

The detailed budget justification for each program activity follows this section beginning with page ED-1 and ending with page IEA-5. The budget justification for each budget activity includes:

- A comparison of positions, man-years, and obligations for FY 1975 and 1976.

- A statement of each organization's missions, accomplishments, and objectives.
- An analysis of budgetary changes from FY 1975 to FY 1976.
- An analysis of requested contract authority for FY 1976.
- Obligations by object class for FY 1975 and FY 1976.

Language:

The language requested in the regular appropriation request is as follows:

SALARIES AND EXPENSES

For necessary expenses of the Federal Energy Administration established by Public Law 93-275, dated May 7, 1974, including hire of passenger motor vehicles, and services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per diem equivalent of the rate for grade GS-18; and not to exceed $11,000 for official reception and representation expenses; $112,435,000 of which $10,000,000, to remain to State and local public agencies as authorized by Public Law 93-275, section 7(d): Provided, That advances or repayments or transfers from the appropriation may be made to any department or agency for expenses of carrying out such activities.

For the transition period (197T) from July 1, 1976 through September 30, 1976 the following language is requested:

For "Salaries and expenses" for the period July 1, 1976 through September 30, 1976, including hire of passenger motor vehicles, and services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per deim equivalent of the rate for grade GS-18: $48,000,000. (Public Law 93-275; additional authorizing legislation to be proposed for $48,000,000 for the period July 1 1976 through September 30, 1976; Supplemental Appropriations Act, 1975).

"Crosswalk" Statements: There follows three "Crosswalk" statements showing distribution of fiscal year 1975 appropriated funds to the present Federal Energy Administration activities.

FEDERAL ENERGY ADMINISTRATION
Cross Walk - "Old" Appropriation to New Activities
FY 1975

($000)

	FEO	Petroleum Allocation	Oil & Gas	Energy Conservation	Energy Data & Analysis	Office of the Solicitor	Oil Import Appeals Bd.	Total	Program Supplemental PL 93-554	Pending Pay Raise Supplemental	Total
Executive Direction & Administration	14,202	19,571	...	...	...	...	...	33,773	729	385	34,887
Energy Policy & Analysis	598	6,256	...	4,598	4,985	...	...	16,437	3,328	252	20,017
Regulatory Programs	971	37,604	...	...	...	1,285	85	39,945	736	1,273	41,954
Energy Conservation & Environment	234	...	...	17,292	...	...	...	17,526	274	106	17,906
Energy Resource Development	1,518	3,269	2,890	...	...	...	...	7,677	2,933	155	10,765
International Energy Affairs	1,477	...	...	...	...	...	...	1,477	...	29	1,506
TOTAL	19,000	66,700	2,890	21,890	4,985	1,285	85	116,835	8,000	2,200	127,035
	FEO	69,590 Fuel Allocation		26,875 Energy Conservation		1,370 Transfer from Interior					

Crosswalk,
Organizational Component
to
Program-by-Activity Category
FY 1975
(in thousands of dollars)

Organization	Executive Direction & Admin	Energy Policy & Analysis	Regulatory Programs	Energy Conservation & Environment	Energy Resource Development	International Energy Affairs	TOTAL
Administrator	3,754	...	...	...	...	...	3,754
Management and Administration	7,095	...	...	...	...	...	7,095
General Counsel	2,034	...	...	...	...	...	2,034
Communications and Public Affairs	2,977	...	...	...	...	...	2,977
Congressional Affairs	775	...	...	...	...	...	775
Intergovernmental, Regional, and Special Programs	1,242	...	...	...	...	...	1,242
Consolidated Account	7,010	...	...	...	...	...	7,010
Policy and Analysis	...	20,017	...	...	...	...	20,017
Operations, Regulations and Compliance	...	...	10,550	...	...	...	10,550
Private Grievances and Redress	...	...	1,186	...	...	...	1,186
Conservation and Environment	...	...	...	17,906	...	...	17,906
Energy Resource Development	...	...	...	...	10,765	...	10,765
International Energy Affairs	...	...	...	...	...	1,506	1,506
Total, Headquarters	24,887	20,017	11,736	17,906	10,765	1,506	86,817
Regions	...	...	30,218	...	...	...	30,218
Reimbursement to State Energy Programs	10,000	...	...	...	...	...	10,000
TOTAL, FEA	34,887	20,017	41,954	17,906	10,765	1,506	127,035

Analysis of Appropriation Allowances, FY 1975
Crosswalk between Appropriations and Organizational Component
(in thousands of dollars)

Organization	FEO	Petroleum Allocation	Oil and Gas	Energy Conservation	Energy Data & Analysis	Office of the Solicitor	Oil Import Appeals Bd	Total	Program Supplemental P.L. 93-554	Pending Pay Raise Supplemental	Total
Administrator	1,545	2,194	...	...	...	...	...	3,739	...	15	3,754
Management and Administration	3,950	2,204	...	...	...	...	...	6,154	729	212	7,095
General Counsel	1,230	756	...	...	...	...	...	1,986	...	48	2,034
Communications and Public Affairs	1,941	970	...	...	...	...	...	2,911	...	66	2,977
Congressional Affairs	470	284	...	...	...	...	...	754	...	21	775
Intergovernmental, Regional and Special Programs	...	1,219	...	...	...	...	...	1,219	...	23	1,242
Consolidated Account	5,066	1,944	...	...	...	...	...	7,010	...	...	7,010
Policy and Analysis	598	6,256	...	4,598	4,985	...	...	16,437	3,328	252	20,017
Operations, Regulations and Compliance	100	8,234	...	...	...	1,285	...	9,619	736	195	10,550
Private Grievances and Redress	871	200	...	...	...	...	85	1,156	...	30	1,186
Conservation and Environment	234	...	...	17,292	...	...	...	17,526	274	106	17,906
Energy Resource Development	1,518	3,269	2,890	...	...	...	...	7,677	2,933	155	10,765
International Energy Affairs	1,477	...	...	...	...	...	...	1,477	...	29	1,506
Total, Headquarters	19,000	27,530	2,890	21,890	4,985	1,285	85	77,665	8,000	1,152	86,817
Regions	...	29,170	...	...	...	...	...	29,170	...	1,048	30,218
Reimbursement to State Energy Programs	...	10,000	...	...	...	...	...	10,000	...	...	10,000
Total, FEA	19,000	66,700	2,890	21,890	4,985	1,285	85	116,835	8,000	2,200	127,035
	FEO	\ 69,590 / Fuel Allocation		\ 26,875 / Energy Conservation		\ 1,370 / Transfer from Interior					

Executive Direction & Administration

($000)

Item	1974 Actual	1975 Estimate	Change Amount	Change %	1976 Estimate	Change Amount	Change %
Positions	N/A	577	N/A	N/A	413	- 164	-29
Man-Years	N/A	585	N/A	N/A	489	- 96	-16
Obligations	N/A	$34,887	N/A	N/A	$30,452	-4,435	- 3

Justification

Executive Direction and Administration includes the responsibilities of the Administrator as well as the supporting services necessary to the proper execution of the Administrator's responsibilities. The Administrator, under responsibilities set forth in Public Law 93-275 of May 7, 1974, advises the President and the Congress with respect to the establishment of a comprehensive National Energy Policy and, in coordination with the Secretary of State, the integration of domestic and foreign policies relating to energy resource management. The Administrator further provides the leadership for energy programs mandated by the President and the Congress.

The supporting services necessary to the proper execution of the Administrator's responsibilities include legal, financial, personnel, organization management and procurement functions, as well as public affairs, congressional affairs, and maintaining relationships with the States on energy matters.

The major accomplishments for these supporting services in FY 1975 include:

- Implementation of Public Law 93-275 including design and staffing of the organizational structure of the Federal Energy Administration.
- The establishment of specific national priorities and objectives for the agency and provide necessary support for the accomplishment of these goals.
- Developed and implemented a GAO approved computerized accounting system, a GAO approved fund control system, and compiled FEA's "Accounting Principles and Standards" which has preliminary GAO approval.
- Liaison with the Congress and the handling of approximately 1,000 telephone inquiries per week.
- Conduct of an extensive communications and public affairs program which included the management of a public reading room averaging 15-20 patrons per day; the handling of over 6,000 telephone inquiries per month; issuing 60 press releases per month; the preparation of an average of five briefing books per week for the Administrator and Senior Staff; and the drafting of speeches for the Administrator and Deputy Administrator on an average of one per working day.

Provision of legal support on a wide and complex range of energy matters; support for the development and implementation of regulations authorized by the Energy Supply and Environmental Coordination Act of 1974 (coal conversion of power plants); and support for the development and implementation of fuel allocation and price regulations.

- Disbursement of $10,000,000 to the States for their involvement in energy management, fuel allocation, energy conservation, and energy resource development.

- Analysis of the impact of the energy crisis in the winter of 1973-74 on the poor and the aged.

- Assessment of the effectiveness of State Offices of Petroleum Allocation during the energy crisis of the winter of 1973-74.

The major FY 1976 objectives for the supporting services in Executive Direction and Administration include:

- The provision of public affairs support to the Energy Resources Council as well as the FEA.

- The "energy-wise" education of the American people concerning energy problems through an increased volume of speeches by the Administrator, two deputy administrators, and administrative assistants who will transmit the Presidential direction for increased efforts in reaching consumer groups on conversation.

- The fostering of a greater degree of competition in FEA's procurement process and the increase of minority and small business participation in the award of contracts.

- The provision of project management staff training to improve project planning, direction, and control.

- The continuation of legal support to the allocation and compliance activities, albeit on a reduced level, if allocation and price control authority is not extended.

- The provision of legal support for FEA initiatives in the international area and, under Project Independence, in the areas of energy resource development, conservation, and the environment.

- The disbursement of $10,000,000 to the States to fund State energy office programs; thereby ensuring their continued involvement in the development and implementation of national energy policy and programs.

- The development of recommendations on new or modified Federal, State, and local programs to alleviate the adverse effects of energy shortages on consumers, the poor, the elderly, and the handicapped.

- The continuation of input from FEA on the formulation and coordination of substantive energy legislation.

Executive Direction & Administration

Analysis of Changes

	Dollars in Thousands	Man-Years
1975 Budget Estimate	34,887	585
1. Decreases:		
Automatic (Non-policy) Decreases:		
- Reduction in personnel compensation and benefits due to less personnel	-1,389	-82
- Non-recurring furniture and equipment purchase	- 176	
- Reduction in other service requirements	-1,195	
- Decrease to Administrator's Contingency Contract Fund for Special Programs	-2,503	
- Deferral of Space Renovation	-2,379	
Program Decrease: Public Affairs Management Improvement:		
- Increased Efficiency	-1,137	-14
- Decreased Travel	212	
- Reduction in Printing	- 192	
Total Decreases	-9,183	-96
2. Increases:		
Automatic (Non-policy) Increases:		
- Increased Travel	+ 54	
- Change in items of rental equipment to support operations	+ 68	
- Increased costs for supplies and material	+ 22	
Program Increases:		
- Centralization of supplies control	+ 306	
- Increased contracts	+2,010	
- Upgrading of staff	+ 357	
- Increased personnel benefits resulting from staff upgrade	+ 26	
- Space rental, utilities, and communications costs	+1,905	
Total Increases	+4,748	0
1976 Budget Reguest	30,452	489

Analysis of FY 1976 Contracts	Cost ($000)
Contingency contract funding attendant with energy priorities and changes in program emphasis	$ 200
Management studies, organizational staffing surveys, and other special projects to enhance the overall management effectiveness of FEA	225
Publications distribution, graphics, community affairs, educational materials, advertising, motion pictures, manuscript editing, radio programs, TV news films, and TV spots	510
Continued development of Consumer Affairs/ Special Impact Comprehensive Human Resources Data System	500
Surveys for assessing energy shortage impact on consumers and special groups	518
State and local government participation and consultation in FEA management policy and program developments	482
Total FY 1976 Contracts	$2,435

EXECUTIVE DIRECTION AND ADMINISTRATION

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 30-66-1500-0-1-305	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions		9,808	8,100
11.3 Positions other than permanent		25	---
11.5 Other personnel compensation		900	624
Total personnel compensation		10,733	8,724
Personnel benefits:			
12.1 Civilian		857	723
21.0 Travel and transportation of persons		630	481
22.0 Transportation of things		42	33
23.0 Rent, communications, and utilities		4,193	6,083
24.0 Printing and reproduction		1,300	1,123
25.0 Other services		3,260	129
Contracts		13,313	12,435
26.0 Supplies and materials		259	529
31.0 Equipment		300	192

99.0 Total obligations	N/A	34,887	30,452

Not Available

Energy Policy and Analysis

($000)

Item	1974 Actual	1975 Estimate	Change Amount	Change %	1976 Estimate	Change Amount	Change %
Positions	N/A	366	N/A	N/A	355	- 11	- 3
Man-Years	N/A	370	N/A	N/A	377	+ 7	+ 2
Obligations	N/A	$20,017	N/A	N/A	$23,574	+ 3,557	+18

Justification

Energy Policy and Analysis includes the functions of performing long-range energy policy analysis. It also includes, for example, the development of a national energy plan, short- and long-range supply/demand forecasting, coordination of energy-related programs, policies, and legislation, development of deregulation and decontrol strategies, and provision of all ADP support for the Administration, including such things as energy statistics, allocation data systems, and providing a national energy data clearinghouse.

The Assistant Administrator for Policy and Analysis requests $23,574,000 for energy supply/demand forecasting, energy policy analysis and energy data collection in FY-76. The forecasting activity is based upon the development, implementation and operation of a family of econometric models which predict all energy supply and demand by geographic region. The energy policy analysis component evaluates the energy, social and economic impact of proposed energy policy alternatives. The data collection activity encompasses all information needed for the formulation of energy policy, the preparation of legislatively required reports, and the administration of allocation programs.

The major accomplishments of Policy and Analysis in FY 1975 include:

- The conduct of long-term analyses of future energy conditions for the November, 1974 Project Independence Report.
- The development of over 100 energy policy issue papers in such areas as deregulation, reaction to potential shortages, and price equalization and control.
- The development of a long-range macroeconomic energy forecasting model, a regional petroleum supply and demand model, and a distribution forecasting model.
- The establishment of an on-going FEA energy data system which measures energy supply levels, conservation efforts, market shares and oil company profits, reserves, etc.
- The development of the National Energy Information Center.
- The completion of a general system design for an integrated petroleum reporting system which will supply the majority of basic energy data requirements, thereby eliminating a number of overlapping data acquisition systems.
- The provision of Quarterly Reports to the Congress which are required under the Energy Supply and Environmental Coordination Act.

The major objectives of Policy and Analysis in FY 1976 are:

- The continuation of Project Independence analysis, including policy, programs, and legislative development.

- The continuation of overall planning, energy analysis and coordination in such areas as supply/demand and emergency systems.

- The development of international models addressing financial flows, balances of payments, and energy conversion, transportation and resources.

- The development of new data systems covering coal reserves, coal production, new coal mines, nuclear fuel, the consumption of energy, and wholesale and retail fuel prices.

- The implementation of data validation and auditing procedures for all FEA data bases.

- The continuation of data collection, data processing and systems design for all FEA automated data systems.

- The conduct of market structure and price impact studies upon the basic energy producing industries (petroleum, gas, coal) and the major energy conversion industry (electric utilities).

- The completion of development of the National Energy Accounts.

- Short-term forecasting of future energy indicators predicting trends and shortages.

Analysis of Changes

		Dollars in Thousands	Man-Years
1975 Budget Estimate		20,017	370
1. Decreases			
- Non-recurring purchase of office equipment	- 44		
Total Decreases		-44	-0
2. Increases			
- Increases personnel compensation and benefits	+ 201		+7
- Increased frequency of domestic travel	+ 20		
- Increase in rental of ADP equipment	+ 270		
- Increase in printing to support publication of reports and National Energy Information Ctr.	+ 31		
- Increased computer support for all FEA activities	+ 3,077		
- Increase in supplies	+ 2		
Total Increase		+3,601	+7
FY 1976 Budget Request		23,574	377

Analysis of FY 1976 Contracts

OFFICE OF DATA	($000) Cost
. Provide export and import data as required by Section 25(c) of the FEA Act. In addition, provide data of retail gasoline gallonage sales and other data required by the legislation.	$ 500
. Provide interactive and batch computer services to all FEA activities. This contract will replace most of the other contracts for computer services and expand from the FY 75 initial contract.	6,500
. Provide additional system support for data collection and data processing systems. In addition, FEA is required to develop several new systems to meet legislative mandates, and this contract provides the manpower and expertise necessary to meet these requirements, i.e., cost equalization, transfer price, mandatory conservation, and computer programming for the National Energy Information Center	500
. Provide keypunch, key-to-tape, key-to-disk and other data entry services to support FEA. This contract will make it unnecessary to increase the Office of Data Services' staff level and provide rapid turnaround capability.	400
. Provide data necessary to complete the information gathering and reporting requirements of the National Energy Information Center.	465
. Provide updating of oil and gas reserves, resources and productivity data, including the identification of ownership.	250
. Develop estimates of U.S. coal reserves to include classification of coal and mining techniques.	500
. Forecasting and economic impact studies computer support	1,345
Data Subtotal.	$10,460
OFFICE OF ANALYSIS	
. Develop technical process models for integrating with the econometric regional energy forecasting models to measure the quantity and price impact of alternative energy policies by region.	200

OFFICE OF ANALYSIS (Cont'd.)	($000) Cost
. Design appropriate accounting structures and assemble data to implement the energy technology and capital accounts -- three contracts, each on a different industry or economic sector. (Total all three contracts $270,000)	270
. Support projects related to Project Independence initiated in FY 75.	320
. Complete development of an integrated world energy model representing refinery and other energy conversion technology, transportation and resources.	150
. Continue updating studies on usage, efficiency and conservation of energy by major energy consuming industries.	425
. Assess the impacts of energy policy on the real distribution of income.	150
. Develop estimates of capacity and expansion plans for 30 categories of critical energy materials and equipment.	125
. Three contracts to develop and implement models of short-term electric power demand, coal supply/ demand, and natural gas supply demand.	220
. Determine full energy sector labor requirements by occupation and State, for use in energy manpower planning.	150
. Develop estimates of international availability of selected resources, both as trade flows between the U.S. and the rest of the world, and as trade flows outside of the U.S.	150
. Perform regional resource studies, focusing upon areas where resource shortages may severely constrain energy development, to evaluate alternative methods of alleviating such shortages and constraints.	150
Analysis Subtotal.	$2,310

OFFICE OF POLICY INTEGRATION AND EVALUATION	($000) Cost
. Four contracts to provide follow-up analysis for Project Independence; to improve the Issues Process; to analyse regulatory policy; and to provide for special projects (contingency planning, ad hoc problems)	200
Policy Subtotal.	200
GRAND TOTAL - Policy and Analysis Contracts.	$12,970

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 30-66-1500-0-1-305	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions		6,727	6,872
11.5 Other personnel compensation		381	395
Total personnel compensation		7,108	7,267
Personnel benefits:			
12.1 Civilian		559	601
21.0 Travel and transportation of persons		190	206
22.0 Transportation of things		15	19
23.0 Rent, communications, and utilities		2,111	2,381
24.0 Printing and reproduction		25	56
25.0 Other services		33	---
Contracts	Not Available	9,860	12,970
26.0 Supplies and materials		6	8
31.0 Equipment		110	66
99.0 Total obligations	N/A	20,017	23,574

Regulatory Programs

($000)

	1974 Actual	1975 Estimate	Change Amount	Change %	1976 Estimate	Change Amount	Change %
Positions	N/A	1,750	N/A	N/A	462	-1,288	-74
Man-Years	N/A	1,749	N/A	N/A	931	- 818	-47
Obligations	N/A	$41,954	N/A	N/A	$21,749	-20,205	-48

Justification

The mission of the three offices which administer the FEA's regulatory programs; namely, Operations, Regulations and Compliance; Private Grievances and Redress; and the Regions; is to support a national energy policy by providing allocation management of energy resources as national needs require.

The major responsibilities include the following:

. Development and implementation of regulatory price and allocation programs.

. Compliance activities required to assure widespread compliance with existing regulations, detect violations, and take appropriate corrective and punitive actions.

. Performance of the independent regulatory functions administered by the Office of Exceptions and Appeals and the Oil Import Appeals Board.

. Implementation of all agency programs in the field; including allocation, enforcement and compliance, conservation and energy resource development.

In FY-75 the Offices performing the above functions had the following major accomplishments:

. The development and implementation of operational procedures for crude oil price equalization program to protect the independent refining sector as mandated in the Emergency Petroleum Allocation Act.

. The continuation and improvement of the effectiveness of the various allocation programs.

. During FY 75 the discovery was made of serious violations in almost every area of the Mandatory Petroleum Pricing and Allocation Regulations. Examples include: refiner failure to include cost recoveries on mandatory sales in its cost computation; refinery calculating its own increased fuel costs as increased cost of product sold to customers; unsubstantiated claims of "new" oil by a producer to escape the price ceiling applicable to "old" oil; illegal price violations

by hundreds of retail/wholesale firms; and numerous violations of the allocation regulations at all levels of the industry.

- The implementation of project SPECULATOR, designed to uncover violations in propane pricing, resulted in over $44 million in refunds to consumers.

- The revision of allocation regulations for each of the eight (8) fuel programs to reflect changed supply conditions caused by termination of the OPEC embargo.

- The revision of allocation regulations as required to correct deficiencies noted in operation of FY 1974 allocation programs, removing unintended effects and permitting increased operation of market forces.

- The development of a stand-by allocation program in the event that future fuel shortages again necessitated the more tightly controlled allocation of products. This consisted of evaluating the regulations of the Mandatory Petroleum Allocation Program and assimilating this data into a contingency program for future use.

- The continued review of current regulations and proposed revisions to adjust varying conditions of supplies. As petroleum products became more plentiful it was necessary to make adjustments in the regulations. Additionally, interpretations of the current regulations and response to inquiries concerning policy changes have expended 12 manyears of effort. These tasks have involved participation in hearings concerning residuals.

- The development of Consignee-Agent regulations; unleaded gasoline regulations and proposals; retail dealer lease ruling; residual fuel deallocation proposal; transfer pricing amendment; allocation of costs regulation regarding gasoline and non-product costs regulation.

- The development of regulations, both price and allocation, to assure adequate supplies of unleaded gasoline for 1975 and subsequent model-year automobiles in support of EPA regulations.

- The development of regulations for the implementation of the Energy Supply and Environmental Coordination Act of 1974 and regulations to begin a more concentrated conservation program. Adjustments of regulations to cope with natural gas curtailments were also achieved.

- The determination of issues in 658 cases before the Office of Exceptions and Appeals: the issuance of detailed decisions and orders in 330 cases.

- The taking of final action on 85 petitions and requests for consideration by the Oil Import Appeals Board: Interim action taken on 8 petitions.

- The establishment of a mandatory petroleum allocation program and the implementation by the Regional Offices to assure an equitable distribution of available supply of fuel on a geographical basis and to ameliorate the effects of the fuel shortage on the public community. At the height of the crisis, these offices processed as many as 21 thousand cases per month as well as answering numerous public inquiries on energy matters.

- The processing of most of FEA's Exception and Appeals cases, many of which were extremely complex and time consuming as a result of the changes in the allocation regulations.

- The investigation and audit of petroleum procedures, refiners, wholesalers and resellers pursuant to the statutes and regulations governing the allocation program. As a result of their continued efforts, by the end of December, about 86,000 investigations had been completed. Their investigations resulted in action on about 20,000 pricing violators with rollbacks amounting to over $66 million dollars.

- The implementation of Federal Energy Management Program at the Regional level which includes developing guidance for Federal Executive Boards; outline procedures for teams to visit Federal facilities and check on energy conservation actions currently underway; develop program guidance for future conservation policies and publicize the results of program including cost effectiveness and specific conservation measures undertaken.

The objectives for FY 1976 of the FEA's Regulatory Programs include the following:

- The phasing out of the National Office and Regional Compliance and Enforcement activities, assuming the expiration of all price and allocation controls in FY 76; the continuation and expansion of compliance and enforcement activities; the preparation of contingency enforcement programs in the event controls are reinstated; and implementation of other compliance strategies and programs as required by FEA.

- The execution of the "Crude Oil Entitlements Program": in conjunction with the program for crude cost equalization, it will be necessary to continue the "crude buy/sell program" in abbreviated form.

- The continuation of on-site audits, investigations, and inspections of the refinery level. The validation and review of actual product costs and profits between different marketing areas and levels.

- The continued operation of the Office of Private Grievances and Redress to handle a still substantial caseload.

- The processing of complex national office directed investigations, compliance cases and data validation surveys, a high priority and highly visible line function now carried out exclusively by the National Case Enforcement Division, will continue through FY 1976.

- The analysis of and decisions on exception applications and appeals relating to the use of petroleum products rather than coal in power generators maintained by public utilities.

- The analysis of and decisions on exception applications and appeals relating to the FEA's responsibilities under the Energy Supply and Environmental Coordination Act of 1974.

- The expansion of the pilot program to five additional cities to upgrade thermal characteristics of existing residential housing stock. The goal is to upgrade 650,000 homes.

- The continuation of work to ensure that FEA meets its statutory requirements under the National Environmental Policy Act, to ensure FEA programs and projects are environmentally sound, and to provide a base for FEA to work with other Federal agencies in assessing alternate energy sources and the energy efficiency of Federal projects.

- The continuation of work with other Federal agencies in conducting inspection, providing counseling, determining the effectiveness of Federal field conservation practices and providing feedback on future Federal conservation policies.

Analysis of Changes

	Dollars in Thousands	Man-Years
1975 Budget Estimate	41,954	1,749
1. Decreases:		
Automated (Non-policy) Decreases:		
- Non-recurring equipment purchases.	- 672	
- Reduction in personnel compensation and benefits	- 457	- 18
- Other service costs	- 4,404	
Program Decreases:		
- Decreases in operating workload due to deallocation	-14,121	-800
- Other costs (travel, supplies, printing, services	- 753	
Total Decreases	-20,407	-818
2. Increases:		
- Increased transportation to relocate household effects of phased out personnel	+ 202	
Total Increases	+ 202	0
Budget request	21,749	931

Analysis of Major FY 1976 Contracts	($000) Cost
. Reimbursement to various agencies and the IRS for the annualization of storage charges for rationing coupons.	$ 100
. Design of forms, procedural manuals, and training materials to support rapid buildup of compliance program consistent with standby regulatory programs.	100
. Study of oil industry management accounting practices for volume and inventory control for crude oil and for products as they affect allocation and enforcement required to support standby program development	200
. Survey of effect of propane pricing rules on supply and consumer prices with respect to the special propane provisions of the FEA Act and FEA's continuing responsibility for propane until the Act expires June 30, 1976	100
. Survey of economic disincentives to increased production introduced into the marketplace by FEA pricing rules and regulations and corrective measures required.	100
. System study for the distribution of gasoline, diesel and heating oil to support development of standby regulations.	100
. Let two contracts to study interstate petroleum transportation network and petrochemical feedstock production and processing.	100
. Presidential requested study of regulatory practices.	500
Total (All Contracts)	1,300

REGULATORY PROGRAMS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 30-66-1500-0-1-305		1974 actual	1975 estimate	1976 estimate
	Personnel compensation:			
11.1	Permanent positions		29,336	16,876
11.5	Other personnel compensation		433	274
	Total personnel compensation		29,769	17;150
	Personnel benefits:			
12.1	Civilian		2,355	1,338
13.0	Benefits for former personnel		---	83
21.0	Travel and transportation of persons		1,877	456
22.0	Transportation of things		297	487
23.0	Rent, communications, and utilities		1,790	541
24.0	Printing and reproduction		628	91
25.0	Other services		1,870	157
	Contracts		2,300	1,300
26.0	Supplies and materials		347	67
31.0	Equipment		721	79
	.....			
	.....			
99.0	Total obligations	N/A	41,954	21,749

Not Available

Office of Energy Conservation and Environment

($000)

Item	1974 Actual	1975 Estimate	Change Amount	Change %	1976 Estimate	Change Amount	Change %
Positions	N/A	183	N/A	N/A	200	+ 17	+ 9
Man-Years	N/A	174	N/A	N/A	195	+ 21	+12
Obligations	N/A	$17,906	N/A	N/A	$25,066	+7,160	+40

Justification

The general mission assigned the Office of Energy Conservation and Environment is to promote efficiencies in the use of energy resources. The Office provides policy analysis on environmental issues and fulfills FEA's responsibilities under the National Environmental Policy Act. The office is responsible for developing and implementing new governmental programs to reduce energy demand in transportation, building, industrial, and utilities areas, developing and conducting public education and multimedia campaigns in support of energy conservation programs, and providing technical and program support of energy conservation to States and localities. In brief, the Office of Energy Conservation and Environment (C&E) has the unique charge to reduce the rate of energy demand growth, to implement energy conservation programs, and to promote efficient use of energy resources.

During FY 1975, the Office's most immediate concern has been to generate information and do the related analytical work on which policy decisions or recommendations can be made, identifying the specific areas having the greatest energy savings potential, developing measurement and evaluation methodologies, and planning for the demonstration of feasible energy-conserving actions.

The major accomplishments of the Office in FY 1975 by specific program area are highlighted below:

Transportation Programs. These efforts are to reduce energy demand in the transportation sector which currently accounts for about one-quarter of all energy usage. The focus is on gasoline consumption because of its direct relationship with petroleum imports.

In FY-75, activities included:

- The provision of data and implementation of the President's Program for Improved Auto Fuel Efficiency, which calls for voluntary improvements by the automobile manufacturers of 40 percent by model year 1979.

- The management (with EPA) of the voluntary fuel economy labeling program for new autos. An estimated 7.2 million labels will be placed on this year's new cars and 750,000 booklets listing comparative auto fuel economies will be distributed.

- The evaluation of alternative carpool promotion strategies and solo-driving disincentives in terms of energy savings, mobility, and impacts on different income groups. Urban auto travel accounts for one-third of auto travel; occupancy for such trips is only 1.4 PM/VM; thus the potential for saving energy -- and for reducing urban air pollution and congestion -- is substantial.

- The examination of the energy conservation potentials of further raising airline load factors and of modifying airplane operations both on the ground and in the air. Airline fuel use accounts for about 10 percent of the transportation fuel budget. Because airline travel is growing so rapidly, this percentage is also likely to grow. Measures to conserve fuel via CAB and FAA regulatory changes will have long-term impacts.

Industrial Programs. Industrial energy use is well over one-third the country's total demand. Major users are primary metals, chemicals, petroleum, coal, stone, clay, glass, cement, paper, and food products.

FY-75 work included:

- The determination of energy saving potential for the ten most energy intensive industries, and the provisions of the basic data for the workshops with those major industries to establish energy efficiency targets.

- The determination of economic feasibility and energy saving potential of improved boiler efficiency. Boilers are common to all industries and generally use the largest amount of energy.

- The accomplishment through meetings with chief executive officers of companies in ten industries and established overall BTU/unit of output goals ranging from 10 percent to 20 percent by 1980. It is estimated that 40 percent of the companies established conservation programs solely as a result of this effort. Approximately 25 percent to 50 percent have made conservation a higher priority.

- The development of energy data bases for nine major industries.

- The development of reports on reduced store hours, energy conservation potential in selected industries, industrial case studies, theoretical potential for energy conservation, energy conservation kits, staggered industry hours, industrial-utility centers, the use of asphalt emulsions for paving, and an off-peak power study.

- The formulation of an industry energy conservation monitoring program for use in monitoring conservation achievements at the company level of the major intensive industries.

Building Programs. The buildings sector accounts for approximately one-third of the Nation's total energy consumption. The 1975 State of the Union message included several initiatives in the buildings area: thermal standards for new buildings and mobile homes, residential tax credit, low income conservation program, and appliance labeling and efficiency standards.

Accomplishments during FY-75 included:

- The development of programs to gain adherence to FEA's lighting and thermal operations, guidelines for commercial, industrial, and public buildings.
- The promotion of a government sponsored marketing program in five cities (Operation Button-Up) to urge retrofit of residential buildings with ceiling insulation, storm windows and doors, and caulking.
- The development of a manual for building owners, operators, architects, and engineers containing guidelines, energy measurement techniques, and return on investment conparisons.
- The development and implementation of the Federal Energy Management Program which resulted in significant energy savings and cost avoidance from buildings operations of the Federal government.

Utilities Programs. These present a potential for major energy savings through load leveling, storage, and marketing by utilities of ways to reduce total usage.

In FY-75 accomplishments included:

- The determination of potential energy savings of leveling electrical loads, improved load management, and supporting strategies.
- The determination of economic feasibility and marketing implications of innovative rate designs for residential customers in five U.S. utility systems.
- The initiation of study to identify what improvements in load factor are economic, what fuel shifts will occur, and what strategies have highest feasibility to increase load factors to the goal set.

Environmental Programs. This program area is concerned with development of environmental policies for FEA, preparation of Environmental Impact Statements (EIS), evaluation of environmental implications of legislative proposals, and development of legislative proposals to amend existing environmental laws.

For FY-75, accomplishments were:

- The continuation of efforts to assure that needed amendments to the Clean Air Act are passed so as to allow the use of intermittent control systems and to remove the nonsignificant deterioration interpretation.
- The establishment of FEA procedures and programs to implement the National Environmental Policy Act which will prevent costly delays in FEA's implementation of programs such as the Coal Conversion Program, Fuel Allocation Program and the like.

- The appraisal of the scientific information of sulfates and acid aerosols which will significantly influence the Nation's ability to expand the use of coal.

- The provision of significant inputs to the development of FEA position on the surface mining legislation.

- The preparation of environmental assessment of the $3 import fee on imported petroleum products and managed the development of the draft EIS for the President's Energy Program.

Public Education. The objective of public education is to enlist voluntary public action in energy conservation and to induce permanent changes in behavior through the development of an energy conservation ethic.

FY 1975 activities included:

- The implementation of a multi-media advertising program consisting of four subjects and 12 treatments of those subjects resulting in approximately one dozen TV/radio and eight print media exposures per person in the U.S. The space and time cost, if purchased, equaled $25 million minimum.

- The support of specific conservation programs (schools, lighting guidelines, temperatures, auto labeling) in FEA and other agencies and more general topics (Tips to Homeowners, Tips to Motorists) with printed information and promotional material.

Administrative and Cross-Sector Programs. This area encompasses the activities of the Assistant Administrator's immediate staff, personnel providing common support services, and cross-sectoral projects.

Fy-75 activities included:

- The recruitment of 110 professional and support personnel, completion of a major position paper for input to the Project Independence Blueprint; analysis of European per capita energy consumption compared to that of the U.S.; cost/benefit analyses of PIB conservation options.

- The delivery of a report to Congress on the conservation potential of restricting exports of primary energy and energy-intensive products.

- The development and implementation of a system to monitor and evaluate FEA conservation programs.

- The completion of an analysis to identify institutional and technical barriers preventing the productive utilization of the latent energy in both the urban and agricultural solid waste stream.

The major 1976 objectives for the Office of Energy Conservation and Environment include the following:

- The continuation of policy research on new car and automobile fleet fuel economy, urban passenger transportation, and inter-modal

shifts, and expansion into the areas of transportation systems questions (fuel and vehicle travel externalities, social and economic impacts) and long-distance freight transportation.

- The continuation of work with industry to achieve their share of the petroleum savings in accordance with the President's 1 and 2 million barrel per day programs.

- The continuation of an industry program by implementing and monitoring programs to include the following industries: petroleum refining, paper, steel, aluminum, chemicals, cement, glass, copper, meat packing, and bakery products (Presidential objective).

- The continuation of a systems research program on fluidized bed technology, waste heat management, and multiple uses of energy in selected industries.

- The development of programs for conversion of boilers from oil and gas to coal; performance standards for industrial equipment; e.g., motors, pumps, compressors; and increased in-plant electrical generation.

- The intensification and expansion of efforts to gain voluntary adherence to Federal lighting and thermal guidelines to obtain energy savings equivalent to 200,000 barrels a day.

- The expansion of the Federal Energy Management Program to all Federal agencies.

- The substantial expansion of electric utility demonstrations to test and assess policy options with regard to rate structures, end-use controls, and the marketing of electricity substitutes.

- The implementation of a program to encourage utilities to reduce the leakage of natural gas, a factor now responsible for significant losses of an energy source in very short supply.

- The assessment of increased energy demand resulting from the Federal Water Pollution Control Act and the Clean Air Act to identify the tradeoffs of the environmental benefits from reduced emissions or effluents versus the benefits of production.

- The development of an independent assessment of air pollution control strategies (intermittent control technologies, fine particulate and sulfate control technologies, transportation control strategies, cooling towers) to determine their efficiency, economy, and impact on energy supply and demand.

- The implementation of a unified approach to conservation information dissemination throughout the government.

- The establishment and imposition upon public education programs of a clear and concise marketing matrix in order to more effectively allocate both manpower and resources to specific energy users and decision makers.

- The development and analysis of the impact of long-term energy conservation proposals.

- The completion of several studies relative to the economic impact of energy conservation: (1) Dislocation; (2) New product markets; (3) Net energy requirements; (4) Low income family.

- The completion of studies on how to encourage the productive utilization of the latent energy in the solid waste stream.

Analysis of Changes

	Dollars in Thousands	Man-Years
1975 Budget Estimate	17,906	174
1. Decreases		
- Non-recurring purchases of equipment	- 37	
- Non-recurring GSA services	- 95	
- Reduced use of overtime	- 18	
- Savings generated by reductions to average grade	- 64	
Total Decreases	-214	
2. Increases		
- Increased travel in support of C&E programs	+ 60	
- Increased rental of equipment	+ 62	
- Increased contractural support	+7,252	
- Increased manyears to support C&E programs		+ 21
Total Increases	+7,374	21
1976 Budget Request	25,066	195

Analysis of FY 1976 Contracts

	($000) Cost
. Using results of the FY-75 new car fuel economy policy study, evaluate energy impacts of Federal policies that change prices of: new cars by market class and fuel economy, used cars, and auto operation.	125
. Analyze social impacts of government auto fuel policies on various income groups; on urban, suburban, and rural families; and on geographical regions.	100
. Measure potential energy impacts of widespread van-pooling. Identify and develop Federal policies to stimulate employer involvement in van- and car-pooling efforts.	100
. Based on FY-75 urban transportation research, develop optimal energy-efficient strategies that include line-haul transit, para-transit, auto disincentives, walking, and bicycling.	150
. Based on FY-75 intercity passenger research, evaluate specific CAB and FAA policies to improve airline efficiency; determine impacts on industry, air travelers, and the economy.	150
. Expand models developed in FY-75 to focus on short-haul passenger travel markets, and analyze policies to shift from air to bus and rail.	100
. Continue FY-75 development of intercity freight network and analysis of alternative policies to increase efficiency of the truck and rail freight transportation system.	150
. Continue development of models to predict transportation fuel use demands; use these models to make consistent forecasts.	150
. Analyze the relationships between urban and suburban land-use patterns and planning and transportation energy use. Estimate the energy impacts of alternative land use patterns. (Project to be funded in cooperation with ORPSS.)	150
. Develop and implement car and vanpool demonstration project with selected large suburban employers in conjunction with FHWA supported regional carpool programs.	250

Analysis of FY 1976 Contracts

	($000) Cost
. Develop and implement voluntary fuel-economy labeling program in conjunction with EPA.	100
. In conjunction with UMTA and possibly EPA, implement a carefully developed program combining transit improvements, carpool locator services, and auto pricing strategies to encourage shifts to more energy-efficient modes in a selected urban area.	200
. Management support necessary to implement the research program, including program support, data system support, various studies on institutional factors, and the development of mechanisms for technology and information transfer in order to achieve the savings which are reflected in project areas.	100
. Development of improved waste heat management programs which include planning and design, installation and maintenance of equipment and establishment of equipment monitoring and control systems. Develop mechanisms for assuring rapid implementation of energy conservation technology into the industrial processes.	200
. Support, including graphics and presentation material, for transferring known and developing technology and information to U.S. industry.	150
. Analyze the feasibilities of fuel substitution in industrial processes. Conduct tests to measure heat output, additional maintenance required, and performance and transfer these results to industry. Determine barriers to implementation of these substitutions.	175
. Conduct a demonstration within the glass or paper industry on the simultaneous manufacture of process steam and electricity which will optimize the utilization of energy. Develop mechanisms for technology transfer as well as policy options for encouraging multiple uses of our energy resources.	150
. Perform analysis to determine methods by which greater recycling of metals can be achieved. Also evaluate the feasibility of reducing the amount of metals in finished products. Develop policy options for encouraging greater use of secondary materials.	100

Analysis of FY 1976 Contracts

	($000) Cost
. Support to continue the FEA/industry cooperative energy conservation program initiated under the "Study of Implementation of Industrial Goals" contract. It will involve the development and presentation of initial briefings and follow-up on workshop sessions for company level executives and energy coordinators of the copper, glass, meat-packing, and bakery products industries.	140
. Analyze and update the reporting format and syllabus for the industrial energy monitoring program initiated in FY-75. Integrate existing industry reporting systems into a monitoring system that will be applicable to all industries. Provide continuity for transfer of the monitoring program to FEA.	200
. Engineering services to provide expertise (one to eight week duration per project) to analyze the feasibility of new technologies or breakthroughs to determine if further detailed effort is warranted, and for short studies regarding energy utilization, etc.	350
. Examine performance characteristics and efficiency ratings of major categories of electric motors, pumps, compressors, and heavy duty refrigeration units for commercial and industrial use. Identify major categories of buyers. Determine feasibility of improving efficiency ratings and examine the potential marketability of more efficient equipment based upon life cycle cost analysis. Estimate impacts and conservation potentials of voluntary and mandatory labeling programs, minimum efficiency standards and other government actions.	140
. Perform an in-depth analysis of agricultural production. Project the characteristics of energy demands and conservation potentials. Determine economic and technical feasibility of a full list of conservation practices and technologies. Write six conservation manuals for the field crop, vegetable crop, orchard crop, livestock, dairy and poultry farmers.	120
. Assess economic impacts of using fluidized beds and identify barriers toward implementation of the technology into industrial processes. Develop policy options and implementation plans for accelerating the onset of this technology into the industrial sector.	100

Analysis of FY 1976 Contracts

	($000) Cost
. Identify new technology in furnaces, materials, heat transfer, application of new fuels and insulation. Determine energy conservation potential and develop programs for technology transfer.	150
. Develop a model state program for increased recovery of waste oil. Work with one or two states to implement the program. On the basis of the results of this effort develop an information and technology transfer mechanism for encouraging other states to develop similar programs.	100
. Investigate new types of refractories for industrial furnaces. Determine optional types and thicknesses as well as physical characteristics. Provide recommendations on assuring maximum implementation of findings.	100
. Identify small industries with substantial energy conservation potential. Conduct surveys on a regional basis to identify the industries and firms having a savings potential and develop a conservation goal/monitoring program applicable to these industries. Establish a plan for equitable treatment of all of the industry sector, and provide concrete examples of where small industry can make substantial energy savings.	175
. Life cycle buildings energy analysis; development of methodology and standardization procedures.	150
. Energy budget data survey of building stock and energy use: data by building type, nationwide.	200
. Building energy budget methodology; develop analytical and measurement techniques for standard development, engineering and architectural design and code enforcement.	150
. Building energy analysis computer program development: validations and design for use in standards.	150
. Indirect energy expenditure in building construction; feasibility of material and systems substitutions.	100
. Building energy analysis and design methodology integration: overall conceptual and operational model.	200

Analysis of FY 1976 Contracts

	($000) Cost
. Test method development for energy performance standards for buildings. Development of model laboratory accreditation, criteria, and techniques.	150
. Development of model energy performance criteria for building complexes and subdivisions (PUD, zonings), building sites.	100
. Financial pattern analysis; impact of financing and lending practices upon building construction and standards.	100
. Impact analysis of selected performance standards upon building types and participant groups and institutions. (New and retrofit.) Include analysis of building structures.	200
. Development of model training program for buildings regulatory officials, professionals and para-professionals.	100
. National architectural and engineering design competition utilizing selected energy performance standards (consider climate, orientation, landscaping, etc.).	100
. Monitoring of prices and supplies of retrofit materials, evaluation of materials allowable for tax credit, and methods of informing consumers of the tax credit.	100
. Technical and manufacturing cost analysis of appliances, investigation of technical attributes and opportunities, test procedures, manufacturing process changes.	200
. Appliance life cycle cost and energy analysis, integration of technical data and national energy conservation goals for standards policy recommendations.	180
. Test, demonstrate, evaluate energy conservation information service for schools.	150
. Manchester, New Hampshire, demonstration building instrumentation and monitoring of energy consumption.	200
. Institution questions and policy analysis related to incentives, disincentives and barriers for energy conservation in the commercial section.	100

Analysis of FY 1976 Contracts

	($000) Cost
. Update of commercial retrofit guidelines, demonstration feedback and new technology update of manual.	100
. High performance heat pump systems.	100
. Evaluation of large building system for option for optimization of energy utilization and computer control.	100
. Laboratory testing of HVAC system and components, continuation of FY-75 work.	100
. Prioritization and evaluation of commercially available heating equipment. Particular emphasis on heat pump application.	100
. Mobile home studies use of integrated systems use of waste heat for water system, new building techniques.	125
. Multi-family studies--technical and institutional opportunities for retrofit activities.	100
. Development of model energy performance criteria for existing buildings.	150
. Laboratory vision research; task, age and other controlling factors in lighting requirements.	200
. Institutional and economic factors which influence fuel choice in residential and commercial buildings.	125
. Implementation of a manual to aid architects, engineers, and building owner/managers in making energy conserving retrofit actions to commercial, industrial, and public buildings.	110
. Implementation of a program to aid architects, engineers, and building owners in adding energy conserving technology in the new building design process.	100
. Implementation of a program providing technical support regarding retrofit and new design for schools and hospitals.	125
. Project Conserve--regional/state/local implementation of individual homeowner questionnaire.	350
. Certification and verification of actual retrofit.	100

Analysis of FY 1976 Contracts	($000) Cost
. Multi-family retrofit actions.	100
. Feasibility analysis and preliminary design of energy independent neighborhood and communities (retrofit and new; e.g., China Lake).	150
. Feasibility and pilot demonstration of solar assist systems for existing structures.	100
. Air change rate study.	100
. Study of conservation potential of the natural gas industry to determine supply and demand elasticities, to identify specific points of wastage and inefficiency, and to recommend institutional, economic and/or technological adaptations for solving the problem.	100
. Study to independently test the FPC conclusions that a reduction of the electricity growth rate to 5% per year would substantially ease the utility industry's financial burdens, and that end-use conservation would therefore be in the industry's own self-interest. The utility industry and the State Regulatory Commissions would be involved, and optimal growth goals for installed capacity formulated. Total kwh usage, peak demand, load/capacity factors, and reserve margins would all be considered in developing a quantitative model of the electric utility industry in 1985.	125
. Expansion of electricity load management demonstrations to encompass alternative techniques and additional systems characteristics.	1,750
. Analysis of systems for utilizing waste generator heat to assess the relative cost-effectiveness of alternative systems for recapturing and productively utilizing this "waste" energy, and to identify the economic, institutional, and technological variables which would affect the widespread adoption of such systems.	140
. Study of the potential of improved generation (conversion) efficiencies to determine the extent to which such improvements promise to contribute to the goals of energy conservation.	125

Analysis of FY 1976 Contracts

	($000) Cost
. Regional energy planning to develop comprehensive strategies to include power plant siting, energy resource development, energy conservation, and environmental protection to provide a basis for FEA policy on proposed legislation.	100
. Evaluation of alternative sulfate control strategies to allow FEA to develop policies concerning the suitability of alternative sulfate control systems.	125
. At the request of the National Association of Regulatory Utility Commissioners (NARUC), both the Edison Electric Institute (EEI) and Electric Power Research Institute (EPRI) have embarked upon an ambitious 3-5 year study of rate structures and load management techniques. FEA participation in this project, which is likely to cost a total of at least $10 million, would enable the agency to shape and benefit directly from this industry-sponsored research.	250
. Continuation and expansion of work initiated in FY-75 to develop and disseminate guidelines to assist regulatory authorities in formulating policies and reaching decisions that help achieve such public goals as more efficient use of electricity, of installed capacity, and of primary generator fuels.	140
. Develop instructional materials for utilities to assist them in improving their own energy efficiencies. Such materials must emphasize the self-interest, particularly the economic self-interest, of the individual utilities and must present conservation techniques and technologies which tend to ameliorate the financial problems of the industry.	140
. To augment the contribution of permanent FEA staff, a team of non-government experts will be retained to selectively participate in state and local regulatory hearings in a timely and comprehensive manner to advocate energy-conserving regulatory decisions.	190
. Saline water availability and the environmental consequences of its use for energy development in the Rocky Mountain region. Phase II.	125
. Identification of the location and magnitude of secondary impacts resulting from major energy development programs to provide basis for FEA policy on proposed legislation.	175

Analysis of FY 1976 Contracts

	($000) Cost
. Project Conserve is being funded in FY 1975 as a part of the C&E Buildings Program, and will probably be continued in FY 1976. The purpose of this project is to specifically identify the energy conservation potential of selected residential areas and to advise homeowners of appropriate improvements, behavior, etc., which might be implemented to save energy. The utilities conservation program plans to supplement this basic project to allow the contractor to enlist the support of the utilities industry in their work.	100
. Environmental policy studies to ascertain the environmental impacts of proposed legislation; environmental regulations, health effects problems, government/industry interaction, and energy development.	400
. Monitor and evaluate the effectiveness of the Office of Conservation and Environment's key energy conservation programs to enable us to determine whether or not and to what extent specific programs are effective in terms of reducing energy consumption and adjust and improve subsequent program efforts.	200
. Continuation of FY-75 work to facilitate the rapid utilization of the latent energy in urban waste through identifying and eliminating institutional barriers to using waste as an energy source as well as providing seed money for limited feasibility demonstrations.	100
. The potential energy available from agricultural wastes is even higher than the energy potential in urban waste. However, the dispersion of the waste has made its utilization unattractive for any large scale system. The purpose of this study will be to study the economical feasibility of collection and utilization of the agricultural wastes in relatively small scale system.	100
. A continuation of the studies stated in FY-75 which are attempting to develop a three-fold construct for micro economic analysis of: (1) the extent to which sub-sectoral energy savings are efficient substitutes for added supply; (2) direct and indirect substitution effects of alternative policies for achieving selected kinds and degrees of energy conservation; and (3) secondary (income) effects as the economy reacts to the alternative policies.	175

Analysis of FY 1976 Contracts

	($000) Cost
. Assessment of regional trends in the United States, determination of federal incentives and disincentives to regions and/or states where land use powers are being used in a manner contrary to the overall national interest, and development of possible additional legislation in this area.	100
. Land use policies have been the jealously guarded prerogative of local and sometimes regional communities. Translation of standards set at the national level into implementable local policy must carefully study alternative strategies for effecting energy conservation through land use including analysis of the legal precedents involved, the nature of the mechanisms to be employed--total regional energy allocations, the presentation of state and/or local land use plans for approval, incentives or disincentives for achieving energy conservation through land use.	100
. Determination of the long range impact of new technologies on land use patterns in the United States and concomitant impact on energy use.	100
. Evaluation of energy conservation alternatives on an economy-wide basis, including: analysis of impact of major Federal policy changes across the spectrum of energy use; determination of the interrelationships of energy demands among various users; the elasticity of such demands, and the impact of shifts from one source to another; assessment of growth of total energy demand and sensitivity of such projections to price changes of various magnitudes.	400
. Develop public service advertising for energy conservation including TV ads, radio ads, magazine insertions, and posters for transportation advertising.	750
. Continue development of "Energy Conservation Corps" expanded from New England to rest of Nation.	100
. Develop, produce, and disseminate through HEW, teaching materials for elementary and secondary schools.	100
. Develop educational support materials for conservation programs in the transportation, industrial, and buildings sectors.	425

Analysis of FY 1976 Contracts

	($000) Cost
. Develop and implement training program for community leaders using national citizen's organization.	450
. Identify consumers' motivations to save energy, evaluate the effectiveness of Office of Energy Conservation and Environment's advertising effort, help design new advertising, and evaluate changes made. Also, as part of the legal regulatory process, FEA can petition the Federal Trade Commission's Division of National Advertising to require that advertisements for consumer products (like appliances) include energy efficiency as a component of the life-cycle cost of the product. However, as a part of its legal evidence, the FTC must have research findings that demonstrate that consumers are led to buy less efficient and more life-cycle costly products by the current manufacturer's advertising than they would be if the energy efficiency and life-cycle costs of operation were included in the advertising.	125
Subtotal (contracts $100,000 and above)	$16,450
Contracts ($100,000 and below)	3,850
Total: All Contracts	$20,300

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 30-66-1500-0-1-305	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions		4,019	3,888
11.3 Positions other than permanent		92	177
11.5 Other personnel compensation		113	95
Total personnel compensation		4,224	4,160
Personnel benefits:			
12.1 Civilian		363	345
21.0 Travel and transportation of persons		111	133
22.0 Transportation of things		---	38
23.0 Rent, communications, and utilities		11	73
24.0 Printing and reproduction		1	1
25.0 Other services		100	5
Contracts		13,048	20,300
31.0 Equipment		48	11
99.0 Total obligations	N/A	17,906	25,066

Not Available

Energy Resource Development
($000)

Item	1974 Actual	1975 Estimate	Change Amount	Change %	1976 Estimate	Change Amount	Change %
Positions	N/A	205	N/A	N/A	244	+39	+19
Man-Years	N/A	205	N/A	N/A	244	+39	+19
Obligations	N/A	$10,765	N/A	N/A	$10,208	-$557	- 5

Justification

The Assistant Administrator for Energy Resource Development develops and implements national policies and programs to increase production and utilization of energy from present domestic sources and to facilitate the development of new domestic energy sources.

The activities within Energy Resource Development (ERD) include the development of plans and programs to expand domestic production of every currently available fuel source including oil, natural gas, coal, oil shale, nuclear, solar, geothermal, and others. ERD is responsible for developing an incentive program to encourage the development of required national energy sources and facilities. The organization is also responsible for preparing programs which serve to mitigate the adverse effects of and remove any impediments imposed by Federal, State, and local regulations in the expansion of energy supply. ERD also evaluates the impact of present and prospective energy supply alternatives, technologies, resource requirements, programs, and actions. ERD provides continuing support to the FEA and will have the lead in initiation of the Project Independence energy supply programs. ERD has been assigned the lead within FEA for implementation of the Energy Supply and Environmental Coordination Act of 1974 (PL 93-319) and will be assigned the lead for the FEA Research and Development Program during FY 1976.

The major accomplishments of Energy Resource Development in FY 1975 include:

- The preparation of the Project Independence Blueprint resource development activities for oil, natural gas, coal, nuclear energy, oil shale, solar energy, geothermal energy, electric power plants, and synthetic fuels.

- The drafting of legislation and the preparation of testimony on material, labor, and equipment shortages; deepwater ports; surface mining, and reclamation; the financial requirements of the electric utility industry; facilities siting; and the deregulation of natural gas.

- The development of a plan for alleviating the potential anthracite shortage in northeastern Pennsylvania.

- The development of a list of utilities which are candidates for conversion from oil to coal and the analysis of the economic, technical, and environmental factors affecting the coal conversion potential of thirty of these candidate utilities.

- The securing of the AEC's approval of a new licensing option for nuclear power plants which provides for replication of designs already approved by the AEC.

- The development of a program for coordinating the efforts of Federal agencies in solar energy development.

- The analysis of the capital requirements of the electric utility industry.

- The organization and implementation of the Energy Supply and Environmental Coordination Act of 1974 (P.L. 93-319).

- The drafting of comprehensive Federal siting and development legislation.

- The development of a state site selection technical assistance program.

- The completion of an initial nationwide survey of energy facility site deficiency.

- The survey of Federal and State license and permit application procedures.

- The securing of Defense Production Act priority status for the Alaska pipeline.

- The integration of long-range research and development planning of other government agencies with FEA's long-range forecast to achieve unified efforts and to avoid duplication.

The major objectives of Energy Resource Development in FY 1976 are:

- The implementation of the non-reporting aspects of the Energy Supply and Environmental Coordination Act of 1974 (P.L. 93-319).

- The passage of legislation to deregulate new natural gas field prices and to mitigate governmental impediments to increased production of natural gas.

- The mitigation of impediments to the development of domestic energy resources imposed by Federal, State, and local regulations.

- The utilization of the Defense Production Act to obtain priority status for critical energy production materials.

- The provision of direction and administration support to ERD programs.

Analysis of Changes

		Dollars in Thousands	Man-Years
1975 Budget Estimate		$ 10,765	205
1. Decreases			
Automatic (non-policy) Decreases:			
- Non-recurring equipment purchases	- 27		
- Reductions in travel costs	-105		
- Reduction in other Support Costs	-297		
- Non-recurring 1975 Contracts	-130		
Program Decreases	-130	-5	
Total Decreases		-689	-5
2. Increases:			
Administrative Comments:			
Automatic (non-policy) Increases:			
- Personnel Benefits	+ 7		
- Other Personnel Costs	+ 28		
Program Increases:	+ 97	+44	
Total Increases		+132	+44
1976 Budget Request		$10,208	244

CONGRESSIONAL BUDGET SUBMISSION
FY 1976

Analysis of FY 1976 Contracts

	($000) Cost
. Prepare inventory of top priority oil and gas land requirements for exploration, production, right-of-way, terminals, and facilities	100
. Complete a draft study of transportation support facilities needed to handle the oil expected from the Alaskan pipelines.	200
. Complete a study of the additional transportation/ market facility of the Northeast.	200
. Conduct a survey to identify significant elements of demand for Eastern coal, analyze funding, and prepare documentation. Prepare a report determining Eastern mine production capabilities and constraints by preparing mine profiles and analyzing labor and material shortage problems.	225
. Let four contracts to determine how government R&D funds should be channeled into geological research; to monitor domestic petroleum exploration activity; to examine oil recovery potential from existing resevoirs; and to analyze production capacity levels for all domestic oil fields.	100
. Let two contracts to analyze the impacts of material, equipment, and labor constraints on gas production; and to identify needs for Synthetic Natural Gas and the enhanced development of SNG	100
. Prepare a report determining Western mine production capabilities and constraints by preparing mine profiles and analyzing labor and material shortage problems. Prepare an analysis of data on the projected demand for Western coal and also on constraints to demand.	250
. Assess needs for equipment, power, manpower, transportation, and other resources in construction of coal facilities and distribution systems.	125
. Investigate power plants (30 top priority plants).	370

Analysis of FY 1976 Contracts (Cont'd.)

	($000) Cost
. Let two contracts for additional powerplant investigations and hearings (30 middle priority plants) and the preliminary analysis of non-utility candidates	330
. Investigate non-utility candidate powerplants.	300
. Continue FY 1975 FEA Task Force program to promote component standardization for those items which seriously impact powerplant reliability.	100
. Let three contracts to study the water requirements and supply conditions for synthetic fuel manufacture; for a complete economic evaluation of three synthetic fuel processes; and to encourage in site oil shale processing technical development.	120
. Let three contracts to promote Federal Government implementation of solar energy technologies by mitigating economic constraints; to analyze data on solar and geothermal energy economics; and to provide public education on the economics of the electric utility industry	180
. Implement detail study of long-term institutional structure of electric utility industry 1985 - 2000.	240
. Draft uniform national rate-making code in cooperation with NARUC to obtain PUC adoptions.	100
. Let nine contracts to evaluate the economics of expanded coal production, energy storage devices, national gas utilities, and the expansion of uranium enrichment and processing.	295
. Let three contracts to analyze oil industry cash flow existing and new tax measures; and the impact of anti-trust laws on the energy sector.	165
. Study to determine financing of alternative methods of use of municipal waste for electricity generation.	100
. Evaluation of ability of energy industry to generate internal funds and attract external funds.	150
. Study to determine unit capital costs of incremental supply compared with capital cost of conserving same incremental unit of supply.	200

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Analysis of FY 1976 Contracts (Cont'd.)

	($000) Cost
. Assessment of effectiveness of state water resource laws, regulations, interstate agreements and related federal legislation for energy resource development purposes.	100
. Let three contracts to provide financing advice to State and local governments for energy resource development projects; to study the financing of U.S. oil stock with possible FEA participation; and to provide management and technical analyses of proposed energy production action programs.	150
. Integrate all data on energy resource development activities of Project Independence implementation program and evaluate its supply program.	175
. Expedite the selection of alternative methodologies for determination of the optimum energy supply program mix.	275
. Let eight contracts to plan, coordinate, and analyze energy facility siting programs; and for other energy research and development projects	350
. Energy Resource Council Study of State Regulatory Processes.	500
TOTAL ENERGY RESOURCE DEVELOPMENT CONTRACTS.....	$5,500

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 30-66-1500-0-1-305	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions		3,750	3,693
11.3 Positions other than permanent		116	140
11.5 Other personnel compensation		50	78
Total personnel compensation		3,916	3,911
Personnel benefits:			
12.1 Civilian		317	324
21.0 Travel and transportation of persons		361	256
23.0 Rent, communications, and utilities		60	46
24.0 Printing and reproduction		62	45
25.0 Other services		249	9
Contracts		5,630	5,500
26.0 Supplies and materials		70	44
31.0 Equipment		100	73
	Not Available		
99.0 Total obligations	N/A	10,765	10,208

International Energy Affairs
($000)

Item	1974 Actual	1975 Estimate	Change Amount	Change %	1976 Estimate	Change Amount	Change %
Positions	N/A	44	N/A	N/A	41	- 3	- 7
Man-Years	N/A	50	N/A	N/A	47	- 3	- 6
Obligations	N/A	$1506	N/A	N/A	$1386	-120	- 8

Justification

International Energy Affairs deals with general policy review and coordination of all FEA international activities, national security council matters, international agreements, multinational energy negotiations, transportation of energy from abroad, and liaison with defense and nuclear energy agencies. This includes the development of policy options for oil sharing, mandatory conservation, emergency supply, and encouraging multinational energy programs, and development and evaluation of U.S. export-import policy options.

The International Energy Affairs staff is unique within the U.S. foreign affairs community in its ability to relate the highly technical and commercial aspects of the total U.S. energy situation to the imperatives of U.S. foreign policy and vice versa.

The major accomplishments of International Energy Affairs in FY 1975 were:

- The provision of support to the Department of State in achieving the U.S.-Soviet Energy Agreement and the International Energy Program Agreement.
- The participation in the support of the Energy Coordinating Group, the OECD, the Law of the Sea Conference, the United Nations, and NATO Civil Emergency Planning.
- The study of existing and probable future relationships between the major oil companies and the U.S. Government within the control of the international oil trade.
- The study of the growth and changes in the world tanker market and their implications for U.S. security.
- A study of the economics and the desirability of liquid natural gas imports over the next 15 years.
- A review of the options available to the U.S. on coal export policy.

- A study of the extent of foreign investment in energy-related U.S. industries.

- The preparation of the international assessment portion of the Project Independence Blueprint.

The major objectives of International Energy Affairs for FY 1976 are:

- The development of legislative proposals regarding the future role of the U.S. government in relation to the international petroleum industry.

- The continuation of participation in and the provision of technical support to the International Energy Agency and the NATO Petroleum Planning Committee.

- The continuing participation in the on-going work of the U.S.-Soviet Energy Agreement with particular emphasis on energy information exchange.

- The determination of the present and projected size, composition, and ownership of the international tanker fleet and the implications for the future security of U.S. supply.

- The conclusion of a major long-term assessment of the international market in world energy resources and the development of specific recommendations on future U.S. energy trade policy options.

- The development of policy options for the achievement of a coordinated North American energy policy.

- The development of proposals designed to create special relationships on a bilateral basis between the U.S. and major producing countries.

Analysis of Changes

	Dollars in Thousands	Man-Years
FY 1975 Budget Estimate	1,506	50
1. Decreases:		
Automatic (Non-policy) Decreases:		
- Reduction in permanent staff		-3
- Reduced overtime due to reduced staff and better staff utilization	- 4	
- Small adjustment to personnel benefits payments	- 1	
- Substantial reduction in foreign and domestic travel	-40	
- Reduced printing and reproduction workload	- 1	
- Changes and improvements in office quarters completed in FY 1975	-22	
- Reduction in periodical subscriptions	- 1	
- Non-recurring furniture and equipment purchase	-16	
Program Decreases:		
- Reduction in contract requirements	-50	—
Total Decreases	-135	-3
2. Increases:		
Automatic (Non-policy) Increases:		
- Personnel compensation increased to cover October, 1974 pay increase. NOTE: This increase offsets the expected decrease from the reduction in permanent positions shown above.		
Total Increases	+ 15	—
FY 1976 Budget Request	1,386	47

Analysis of FY 1976 Contracts	($000) Cost
. Identify and evaluate the impact and effectiveness of alternative US/OECD energy export/import trade policies given their respective projected energy requirements, resource and financial constraints, and commercial markets for primary and secondary energy related resources.	$ 100
. Analyze the energy market shares currently held within the major energy consuming countries by (1) the international oil companies and their major subsidiaries, (2) the major consumer state-owned companies, and (3) the principal independent operations. The study would also analyze the relative competitive standings of these groups as a basis for evaluating the effects of alternative producer-consumer energy policies on their respective energy market structures.	50
. Analyze the near-to-medium term (up to 1990) potential for Free World oil and gas discoveries that may reduce import dependency on OPEC and the impact of such discoveries on the energy import/export policies of energy consuming nations.	50
. Assess to what degree high priority energy R&D in the U.S. in coal conversion and coal combustion would be facilitated through cooperative research with scientific institutions in the UK and the Federal Republic of Germany	50
Total	250

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 30-66-1500-0-1-305	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions		918	933
11.5 Other personnel compensation		25	21
Total personnel compensation		943	954
Personnel benefits:			
12.1 Civilian		80	79
21.0 Travel and transportation of persons		127	87
24.0 Printing and reproduction		5	4
25.0 Other services		22	---
Contracts		300	250
26.0 Supplies and materials		5	4
31.0 Equipment		24	8

99.0 Total obligations	N/A	1,506	1,386

Not Available

Summary
Analysis of Changes

	Dollars in Thousands	Man-Years
1975 Budget Estimate	$127,035	3,133
1. Decreases:		
- Reduction in personnel compensation and benefits	-15,565	-850
- Reduction in travel	- 1,454	
- Reduction in printing costs	- 701	
- Reduction in other services	- 5,234	
- Reduction in supplies, materials and equipment	- 909	
Total Decreases	-23,863	-850
2. Increases:		
- Increase in Rent, Communications and Utilities	+ 959	
- Increased contracts	+ 8,304	
Total Increases	+ 9,263	-0-
1976 Budget Request	$112,435	2,283

FEDERAL ENERGY ADMINISTRATION

Federal Funds

General and special funds:

SALARIES AND EXPENSES

For necessary expenses of the Federal Energy Administration established by Public Law 93–275, dated May 7, 1974, including hire of passenger motor vehicles, and services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per diem equivalent of the rate for grade GS–18; and not to exceed $11,000 for official reception and representation expenses; $112,435,000, of which $10,000,000, to remain available until expended, shall be available for reimbursement of State and local public agencies as authorized by Public Law 93–275, section 7(d): Provided, That advances or repayments or transfers from the appropriation may be made to any department or agency for expenses of carrying out such activities.

[For an additional amount for "Salaries and Expenses", $8,000,000.]

For "Salaries and expenses" for the period July 1, 1976, through September 30, 1976, including hire of passenger motor vehicles, and services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per diem equivalent of the rate for grade GS–18: $48,000,000. (Public Law 93–275; additional authorizing legislation to be proposed for $48,000,000 for the period July 1, 1976, through September 30, 1976; Supplemental Appropriations Act, 1975.)

[FUEL ALLOCATION, OIL AND GAS PROGRAMS]

[SALARIES AND EXPENSES]

[For necessary expenses to enable the Secretary to discharge his responsibilities with respect to oil and gas, including cooperation with the petroleum and natural gas industries and State and local authorities in the production, processing, and utilization of petroleum and its products, and natural gas, $69,590,000, of which $10,000,000, to remain available until expended, shall be available for reimbursement of State and local public agencies as authorized by Public Law 93–275, section 7(d).]

[OFFICE OF THE SECRETARY]

[ENERGY CONSERVATION AND ANALYSIS]

[For necessary expenses to support energy conservation research, data collection, and analysis, $26,875,000.]

[FEDERAL ENERGY OFFICE]

[SALARIES AND EXPENSES]

[For necessary expenses of the Federal Energy Office established by Executive Order Numbered 11748, dated December 4, 1973, including hire of passenger motor vehicles, reimbursements to the Emergency Fund of the President for allocations to the Office, and services as authorized by 5 U.S.C. 3109, but at rates for individuals not to exceed the per diem equivalent of the rate for grade GS–18: $19,000,000; *Provided*, That advances or repayments or transfers from this appropriation may be made to any department or agency for expenses of carrying out such activities.]

Program and Financing (in thousands of dollars)

Identification code 30-66-1500-0-1-305	19 74 actual	19 75 estimate	19 76 estimate
Program by activities:			
1. Executive direction and administration	3,737	34,887	30,452
2. Energy policy and analysis	2,600	20,017	23,574
3. Regulatory programs	32,791	41,954	21,749
4. Energy conservation and environment	1,963	17,906	25,066
5. Energy resource development	2,430	10,765	10,208
6. International energy affairs	826	1,506	1,386
Total direct program	44,347	127,035	112,435
Reimbursable programs	483	...	...
Total program costs, funded	44,830	127,035	112,435
Change in selected resources (undelivered orders)	29,003	...	...
10 Total obligations	73,833	127,035	112,435
Financing:			
11 Receipts and reimbursements from: Federal funds	-483	...	...
25 Unobligated balance lapsing	127	...	...
Budget authority	73,477	127,035	112,435
Budget authority:			
40 Appropriation	63,490	124,835	112,435
41 Transfer to other accounts	-5	...	...
42 Transfer from other accounts	9,992	...	...
43 Appropriation (adjusted)	73,477	124,835	112,435
44.10 Proposed supplemental for wage-board pay increase	...	10	...
44.20 Proposed supplemental for civilian pay raises	...	2,190	...

Program and Financing (in thousands of dollars)

Identification code 30-66-1500-0-1-305	1974 actual	1975 estimate	1976 estimate
Distribution of budget authority by account:			
Federal Energy Office, salaries and expenses	9,360	...	...
Fuel allocation, oil and gas programs, salaries and expenses	54,125	...	...
Office of the Secretary, Interior, departmental operations, salaries and expenses	...	85	...
Office of the Secretary, Interior, salaries and expenses	8,300	...	...
Office of the Solicitor, Interior, salaries and expenses	692	1,285	...
Economic Stabilization, activities, salaries and expenses	1,000	...	...
Federal Energy Administration, salaries and expenses	...	125,665	112,435
Relation of obligations to outlays:			
71 Obligations incurred, net	73,350	127,035	112,435
72 Obligated balance, start of year	43	40,468	47,267
74 Obligated balance, end of year	-40,468	-47,267	-18,585
77 Adjustments in expired accounts	- 40	...	...
90 Outlays excluding pay raise supplemental	32,884	118,343	140,810
91.10 Outlays from wage-board pay raise supplemental	...	9	1
91.20 Outlays from civilian pay raise supplemental	...	1,884	306
Distribution of outlays by account:			
Federal Energy Office, salaries and expenses	9,360	...	...
Fuel allocation, oil and gas programs, salaries and expenses	19,220	...	...
Office of the Secretary, Interior, salaries and expenses	2,612	...	...
Office of the Solicitor, Interior, salaries and expenses	692	...	...
Economic Stabilization activities, salaries and expenses	1,000	...	...
Federal Energy Administration, salaries and expenses	...	120,236	141,117

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 30-66-1500-0-1-305		1974 actual	1975 estimate	1976 estimate
	Personnel compensation:			
11.1	Permanent positions	14,633	54,558	40,362
11.3	Positions other than permanent	3,224	233	317
11.5	Other personnel compensation	1,342	1,902	1,487
	Total personnel compensation	19,199	56,693	42,166
	Personnel benefits:			
12.1	Civilian	1,648	4,531	3,410
13.0	Benefits for former personnel	..	..	83
21.0	Travel and transportation of persons	1,808	3,296	1,619
22.0	Transportation of things	334	354	577
23.0	Rent, communications, and utilities	3,841	8,165	9,124
24.0	Printing and reproduction	1,138	2,021	1,320
25.0	Other services	41,956	49,985	53,055
26.0	Supplies and materials	846	687	652
31.0	Equipment	3,063	1,303	429
99.0	Total obligations	73,833	127,035	112,435

SALARIES AND EXPENSES

DETAIL OF PERMANENT POSITIONS

	1974 actual	1975 estimate	1976 estimate
Executive Level II	1	1	1
Executive Level III	1	2	2
Executive Level IV	7	7	7
Executive Level V	3	5	5
Subtotal	12	15	15
GS-18	11	10	10
GS-17	18	23	17
GS-16	51	65	45
GS-15	127	237	130
GS-14	144	280	154
GS-13	205	326	139
GS-12	234	358	364
GS-11	431	361	121
GS-10	74	15	15
GS- 9	432	284	131
GS- 8	144	99	68
GS- 7	303	338	212
GS- 6	90	145	98
GS- 5	277	280	116
GS- 4	313	186	40
GS- 3	190	66	16
GS- 2	---	15	6
Subtotal	3,044	3,088	1,682
Ungraded	19	22	18
Total permanent positions	3,075	3,125	1,715
Unfilled positions, June 30	- 122	---	---
Total permanent employment, end of year	2,953	3,125	1,715

FEDERAL METAL AND NONMETALIC MINE SAFETY BOARD OF REVIEW

SALARIES AND EXPENSES

Appropriation/Total available, 1974..... $60,000

Appropriation/Total available, 1975..... 60,000

Summary of Increases and Decreases, 1976

	Base for 1976	Increase or Decrease 1976	
Adjudication and Administration: Revised estimate of program needs.....	$60,000	---	---
Budget Estimate, 1976.....			60,000

Analysis by Activities

Activity	F.Y. 1974 Amount Available	F.Y. 1975 Amount Available	F.Y. 1976 Estimate	Increase (+) or Decrease (-) 1976 Compared with 1975
Adjudication and Administration.....	$39,920	$60,000	$60,000	$ ---
Unobligated Balance Lapsing.....	20,080	---	---	---
Total.....	$60,000	$60,000	$60,000	---

JUSTIFICATION

Adjudication and Administration: Fiscal year 1975, $60,000; fiscal year 1976, $60,000. No increase requested over fiscal year 1975 program.

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
$ ---	---	$60,000	2	Current estimate of program needs.

An appropriation of $60,000 is being requested for operation of the Federal Metal and Nonmetallic Mine Safety Board of Review for fiscal year 1976. This amount is the same as the Board's fiscal year 1975 appropriated budget.

The Federal Metal and Nonmetallic Mine Safety Board of Review is an independent, quasi-judicial agency, established by section 10 of the Federal Metal and Nonmetallic Mine Safety Act (30 U.S.C. 721-740). More particularly, section 10(a)of the act provides:

> "An agency is hereby created to be known as the Federal Metal and Nonmetallic Mine Safety Board of Review, which shall be composed of five members who shall be appointed by the President, by and with the advice and consent of the Senate."

The membership of the Board is required to be tripartite in nature, that is, two members must represent the viewpoint of the metal and nonmetallic mine operators; two members must represent the viewpoint of the metal and nonmetallic mine workers; and the chairman, who is required to be an engineer experienced in the metal and nonmetallic mining industry and without financial or employment connection with the groups concerned.

On July 15, 1971, the Senate confirmed the following individuals as Members of the Board:

Howard L. Hartman (Chairman), of Tennessee, for the term of 5 years expiring September 15, 1975.

Peter J. Bensoni, of Minnesota, for the remainder of the term of 5 years expiring September 15, 1972. On October 14, 1972, the Senate confirmed Mr. Bensoni for a term of 5 years expiring September 15, 1977.

William W. Little, of Arizona, for the remainder of the term of 5 years expiring September 15, 1971. On October 21, 1971, the Senate confirmed Mr. Little for a term of 5 years expiring September 15, 1976.

Robert W. McVay, of Missouri, for the remainder of the term of 5 years expiring September 15, 1978.

Charles E. Schwab, of Colorado, 5 year term expired on September 15, 1974. (Mr. Schwab's reappointment is pending before the Congress).

Dr. Howard L. Hartman, who is Chairman of the Board, is Dean of the School of Engineering, Vanderbilt University, Nashville, Tennessee. Dr. Hartman convened the Board for the first time on July 30, 1971, at which time the members were sworn in.

The Federal Metal and Nonmetallic Mine Safety Act provides for promulgation, by the Secretary of the Interior, of mandatory health and safety standards applicable to metal and nonmetallic mines, and for the enforcement of such standards.

The Mining Enforcement and Safety Administration (MESA) performs the actual on-site inspections of mines.

The Board is a hearing agency, established to review contested orders issued by MESA which require a mine operator to withdraw personnel from any mine the Bureau believes to be in violation of mine safety standards. The Board performs essentially a judicial function; the Board is not engaged in mine inspection, or in the promulgation of safety standards. MESA issues a withdrawal order which is reviewed by the Board whenever a mine operator files an application for review with the Board. Appeals from final Board orders may be taken to the U.S. Courts of Appeals, and when necessary to the U.S. Supreme Court.

To adjudicate the cases that come before it, the Board is required to conduct public hearings; to render final decisions and orders; and to certify records on appeals to the courts. Because of the urgent need for prompt decisions, all such actions of the Board are specifically required to be taken as rapidly as practicable, consistent with adequate consideration of the issues involved.

Apart from its adjudicative functions, the Board is required to perform the numerous organizational duties of any quasi-judicial agency in the executive branch. It is required to perform the ongoing activities of

an independent agency; the maintenance of records, files and supporting data; the submission of administrative reports to other executive departments and agencies; reports to the Congress, including a detailed annual report of its operations; the prompt handling of inquiries and correspondence; and the participation in hearings before committees of the Congress.

No cases have been filed before the Board in previous years. The Board, when estimating budget requirements in advance, must, of course, presume that at least some cases will be filed, as MESA is carrying on an active mine inspection program of the approximately 17,000 mines, quarries, sand and gravel pits, and milling operations covered by the Federal Metal and Nonmetallic Mine Safety Act.

The Board's fiscal year 1976 budget has been prepared on the assumption that only a small number of cases will be filed. Based on its previous operating experience and taking into consideration additional costs such as space, salary increases, etc., $60,000 will be required to maintain the Board in accordance with the provisions of the Federal Metal and Nonmetallic Mine Safety Act. Should sufficient caseload develop to the extent that additional resources are needed, supplemental appropriations would be required since the Board must be in a position to act promptly.

Program and Financing (in thousands of dollars)

	1974 actual	1975 estimate	1976 estimate
Program by activities:			
10 Adjudication and administration (costs - obligations)	40	60	60
Financing:			
25 Unobligated balance lapsing	20	--	--
40 Budget authority (appropriation)	60	60	60
Relation of obligations to outlays:			
71 Obligations incurred, net	40	60	60
72 Obligated balance, start of year	28	4	6
74 Obligated balance, end of year	-4	-6	-6
77 Adjustments in expired accounts	-25	--	--
90 Outlays	39	58	60

Object Classification (in thousands of dollars)

	1974 Actual	1975 Estimate	1976 Estimate
Personnel compensation:			
11.1 Permanent positions	32	35	35
11.3 Positions other than permanent	1	4	4
Total personnel compensation	33	39	39
Personnel benefits:			
12.1 Civilian	3	3	3
21.0 Travel and transportation of persons	1	5	5
23.0 Rent, communications and utilities	1	6	6
24.0 Printing and reproduction	--	1	1
25.0 Other services	1	5	5
26.0 Supplies and materials	1	1	1
99.9 Total obligations	40	60	60

Personnel Summary

Total number of permanent positions	2	2	2
Average number of all employees	2	2	3
Average GS grade	10.50	10.50	10.50
Average GS salary	$16,515	$16,515	$17,040

Program and Financing (in thousands of dollars)

	July 1 - Sept. 30, 1976
Program by activities:	
10 Adjudication and administration (costs - obligations)	15
Financing:	
40 Budget authority (appropriation)	15
Relation of obligations to outlays:	
71 Obligations incurred, net	15
74 Obligated balance, end of year	-1
90 Outlays	14

Transition Quarter
7/1/76 through 9/30/76

$15,000 is requested for salaries and expenses necessary to conduct the functions of the Board for three months. Obligations are incurred at a static rate throughout the year. This request represents approximately 25 per cent of the fiscal year 1976 request.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

HEALTH SERVICES ADMINISTRATION

INDIAN HEALTH SERVICE

HIGHLIGHT STATEMENT

INTRODUCTION

The Indian Health Service is the primary Federal health resource for 507,000 Indians and Alaskan Native people. The goal of the Indian Health Service is to raise the health status of these Americans to the highest possible level. The mission of the Indian Health Service is to insure the availability and accessibility of a comprehensive high quality health care delivery system providing maximum involvement of Native Americans in defining their health needs and the setting of health priorities for their local areas. The Indian Health Service also acts as the principal Federal health advocate for Native Americans and for assuring that they have knowledge of, and access to all Federal, state and local health programs to which they are entitled as American citizens.

The Indian Health Service program provides direct health services to Indians, Eskimos, and Aleuts in 51 hospitals, 86 health centers (including 26 school health centers) and several hundred other health stations. The program also includes a preventive health component consisting of sanitation and dental care, public health nursing, health education and field medical services. This component brings health services directly to homes and communities. The health centers and stations are carefully located to conveniently provide as complete a range of health services to Indian communities as is possible. These clinic-based services are supplemented by home visits providing preventive and curative health services in combination with education in good health care and practice. Included are such activities as mental health and alcoholism, nutrition and maternal and child health. The Indian Health Service program is supplemented through contractual arrangements with public and private health practitioners and institutions, including tribal governments, in those situations where it is considered to be the most feasible, effective, efficient, and accessible method of providing the highest quality of care.

Significant advances have been made in recent years, particularly in the prevention of infant deaths and deaths from tuberculosis. However, the environment, both physical and economic, in which the Indians live, predisposes them to the ravages of disease to a far greater degree than the general population. Their health needs also far exceed that of the general population. The Indian Health Service currently has significant unmet needs in its effort to provide quality health care to the Indian people.

Additional resources are needed for staffing and training health manpower, preventive health services, and many disease areas. The fiscal year 1976 request includes a program increase of $5.7 million

to be applied toward laboratory improvement, otitis media program, hospital inpatient care, ambulatory care, eye care, mental health, and tribal programs.

On January 4, 1975, President Ford signed into law the Indian Self-Determination and Education Assistance Act (S1017). In a statement by the President, upon signing the Bill, he said, "it will enable this Administration to work more closely and effectively with the tribes for the betterment of all the Indian people by assisting them in meeting goals they themselves have set." Avenues for Indian participation have been provided since 1934, but it has only been in the last several years that tribal councils, health boards and advisory committees have become viable mechanisms for providing increased Indian involvement in the planning, operation and evaluation of their programs. With the signing of the Indian Self-Determination and Education Assistance Act, and President Ford's commitment to self-determination without termination, the right of the Indian people to determine their own future has been assured with specific authority to implement this concept.

There follows a discussion of areas of special concern:

1. MORTALITY

The latest available age adjusted mortality rates for Indians and Alaska Natives (1973) and for U.S. all races (1972) show that the rates for Indians and Alaska Natives are considerably higher than the general population, except for diseases of the heart, malignant neo-plasms, cerebrovascular disease, and bronchitis, emphysema and asthma.

The higher ratios are as follows:

	Mortality Ratios Indians to U. S. All Races
All causes of death	1.4
Infant deaths	1.1 1/
Accidents	3.9
Influenza and Pneumonia	2.4
Cirrhosis of liver	4.4
Homicide	3.1
Diabetes	2.1
Suicide	1.9
Tuberculosis	5.4

1/ Birth rates based on 1973 data.

In 1973 the Indian and Alaska Native infant death rate of 19.5 per 1,000 live births was about 1.1 times as high as the provisional U. S. all races rate of 17.6. The Indian and Alaska Native postneonatal rate is more than twice the U. S. rate. This high rate results from the return of the infant to the complex problems that accompany a poverty stricken environment.

2. MORBIDITY

Infectious Diseases--Numerous episodes of illness requiring inpatient or outpatient care are due to infectious diseases and their after-effects. These diseases include gastroenteritis, dysentery, influenza, tuberculosis, otitis media, trachoma, pneumonia, and common childhood communicable diseases. With the increased longevity now occurring in the Indian population, medical problems such as heart and cancer which are associated with an older population group are now increasing. Older Indian people are becoming aware and acceptant of the services provided by the Indian Health Service. This is best illustrated by the increased hospital utilization of the older age groups. There were 75,546 adult patients discharged from general hospitals in 1973 as compared to 57,009 patients in 1967, an increase of about 33 percent.

3. ALCOHOLISM

Just as smallpox nearly destroyed several large tribes in the early 1800's, alcohol abuse is destroying the lives of many Native American people today. There is scarcely a Native community which does not consider alcohol abuse as one of its most serious problems. The suicide death rate for Native Americans is twice that of the nation as a whole with the majority of these suicides related to the use of alcohol. Additionally, studies of accidental deaths in Indian communities have also shown that the majority are related to excessive drinking. Last year Indian Health Service Mental Health Workers saw almost thirty-thousand patients for problems related to alcohol. There is an urgency about continuing all existing alcoholism program efforts for those Indian people whose problem with alcoholism is as deadly as with any life-threatening disease state.

4. MENTAL HEALTH

Difficulties in living, ranging from severe psychosis to general discouragement and apathy plague American Indians like all groups, and, as with any group, psychiatric assistance can be of value in improving and preventing these conditions. Unless such assistance is given, these problems continue,

and manifest themselves as self-destructive drinking, suicide, violence, family disorganization, child abuse or neglect, and apparent physical disability without physical cause. Indian cultures in the past have had their own ways of coping with mental illness, but unfortunately many of these mechanisms have broken down due to changes in the Indian's way of life. The objective of the Indian Health Service mental health program is to keep Indian people mentally healthy and to draw upon the inherent strengths of Indian culture and heritage by reinforcing and rebuilding the positive influence which this Indian culture imparts to the individual. To accomplish this objective, the staff of the mental health program includes and uses Indian community mental health workers. These workers help bridge the gap between the professional and the patient and the community in many ways, such as patient identification and follow-up. They also help to change Indian and non-Indian community attitudes, as well as to assist in training other non-professional staff. The maintenance of a high level of mental health is essential in raising the general health standards of the Indian people.

5. MATERNAL AND CHILD HEALTH

The health of Indian and Alaskan Native mothers and children continues to improve through the efforts of the Maternal and Child Health Services program. Maternal mortality has continued to decline from 82.6 per 100,000 live births in 1958 to 16.8 in 1973. Infant mortality has been reduced from 62.5 per 1,000 live births in 1955 to 19.5 in 1973. This overall infant mortality rate is approaching the provisional U.S. all races rate of 17.6. In 1973 the neonatal mortality rate of 8.9 per 1,000 live births was below the provisional U.S. general population rate of 12.9. The use of indigenous Indian health workers together with the inception over the last four years of special community maternal and child health projects through contracts with tribes is a contributing factor in allowing the program to show continual improvement in this area.

6. NUTRITION

While there has been improvement in the nutritional quality of the food supply available to some Indians, substantial numbers of Indians and Alaska Natives still do not have sufficient food nor the economic resources to prevent and overcome mild or moderately severe nutritional problems. This is particularly significant for those at the highest nutritional risk: infants, pre-school children, females in the childbearing years (15-44), the elderly, and the chronically ill. Malnutrition occurs per se and

as a complicating or contributing factor in a wide variety of other health problems and illnesses. These include underachievement in physical growth and development (sometimes called failure to thrive), nutritional anemia, infectious and chronic diseases, maternal morbidity, infant morbidity and mortality, and significant underweight or obesity. As more Indians and Alaska Natives are trained as nutrition technicians and food service workers in the Indian Health program, the impact of their efforts in working with the Native population in their home communities and Indian Health hospitals can be significant in the reduction of these nutrition problems.

7. DENTAL HEALTH

Indian people consistently rank dental health very high among their health priorities. Oral conditions such as caries, periodontal disease, orthodontic problems and missing teeth are chronic. Frustration is common because the conditions are obvious, the means of prevention and correction known and, where resources permit, the Indian Health Service organization is capable of effective and rapid response to the desires of each community.

Among children, where services are concentrated, tooth mortality has steadily declined in relation to infected teeth. Orthodontic conditions have also steadily improved among the young. The young still have a large reservoir of corrective service needs and adults remain without most oral health services.

The Indian Health Service dental program has demonstrated a high order of efficiency and effectiveness. It also is a leader in the dental profession in areas of national concern such as quality evaluation, resource planning and the development of auxiliary personnel.

Appropriated, 1974 (adjusted)			$204,545,291
Total amount available			204,545,291
Appropriation, 1975		$226,217,000	
Comparative transfer from the "Health Services" Appropriation		+3,752,000	
Proposed transfer from other accounts for pay raises:			
Pay Act requirements	$9,612,000		
Less 5% cutback in Program Management	-157,000		
Proposed Transfer		9,455,000	
Total amount available, 1975			239,424,000

Summary of Increases and Decreases, 1976

	Base for 1976	Increase 1976	
Patient Care			
Hospital Care - To provide for net mandatory increases ($7,852,000) and program increases ($3,027,000)	$88,263,000	$10,879,000	
Contract Care - To provide for mandatory increases	45,913,000	5,168,000	16,047,000
Preventive Health and Ambulatory Care			
Sanitation - To provide for mandatory increases	8,629,000	448,000	
Dental - To provide for mandatory increases	8,997,000	582,000	
Public Health Nursing - To provide for mandatory increases	4,504,000	349,000	
Health Education - To provide for mandatory increases	1,963,000	150,000	
Field Medical Services - To provide for net mandatory increases ($4,774,000) and program increases ($1,645,000)	30,160,000	6,419,000	
Ambulatory Care - To provide for net mandatory increases ($4,787,000) and program increases ($1,050,000)	47,933,000	5,837,000	13,785,000
Program Management			
To provide for mandatory increases	3,062,000	285,000	285,000
Net Increase, 1976			30,117,000
Budget Estimate, 1976			269,541,000

Analysis by Activities

(Direct Appropriation)

	1974 Amount Available	FY 1975 Total Appropriation	Pay Cost Transfer	Comparative Transfer 2/	Amount Available
Patient Care ..	$116,680,918	$128,594,000	$4,895,000	$ 687,000	$134,176,000
Preventive Health and Ambulatory Care ...	84,688,843	94,538,000	4,583,000	3,065,000	102,186,000
Program Management	2,989,260	3,085,000	-(23,000) 1/	...	3,062,000
Unobligated Balance Lapsing	186,270	...	...	...	...
Total	204,545,291	226,217,000	9,455,000	3,752,000	239,424,000

1/Represents the difference between the 5% cutback in program management (-$157,000) and increased pay cost requirements (+$134,000).

2/ Represents a comparative transfer from "Health Services" appropriation.

Analysis by Activities

	Amount Available 1974	Amount Available 1975	Estimate 1976	Increase (+) Decrease (-)
Patient Care	$116,680,918 2/	$134,176,000	$150,223,000	+$16,047,000
Preventive Health and Ambulatory Care	84,688,843	102,186,000	115,971,000	+ 13,785,000
Program Management	2,989,260	3,062,000	3,347,000	+ 285,000
Sub-Total Obligations	204,359,021 3/	239,424,000 3/	269,541,000	+ 30,117,000
Unobligated Balance Lapsing ..	186,270	---	---	
Budget Authority	204,545,291 2/ 1/	239,424,000 1/	269,541,000 1/	+30,117,000

1. Patient Care

	Amount Available 1974	Amount Available 1975	Estimate 1976	Increase (+) Decrease (-)
(a) Hospital care Oper. of IHS Hospitals:				
Positions	3,791	3,906	3,982	+ 76
Amount	76,061,394	88,263,000	99,142,000	+10,879,000
(b) Contract care -				
Positions	40	40	40	
Amount	40,619,524	45,913,000	51,081,000	+ 5,168,000
Total Patient Care:				
Positions	3,831	3,946	4,022	+ 76
Amount	116,680,918	134,176,000	150,223,000	+16,047,000

1/Excludes reimbursements as follows: FY-1974 - $1,545,476; (PC $1,435,560; FH $109,916); FY-1975 - $1,715,000 (PC $1,602,000; FH $113,000); FY-1976 - $1,715,000 (PC $1,602,000; FH $113,000).

2/Reflects a 1975 Comparative Transfer +$205,000 "Office of Assistant Secretary for Health" for Commissioned Officer Personnel Functions; reflects a 1975 Comparative Transfer -$34,000 to "Departmental Management, Office of the Secretary".

3/Reflects a 1976 Comparative Transfer from the "Health Services" appropriation of +$3,752,000 for California Rural Indian Health Board, Red Lake Tribal Council and Alaska Federation.

NOTE: Reflects a transfer of positions and funds from the Patient Care activity to the Preventive Health and Ambulatory Care activity for (1) dental program currently funded from patient care and (2) Ambulatory Care (hospital outpatient department) currently funded from Patient Care.

1. Patient Care
Summary of Change

INCREASES	
Mandatory:	
Full-year cost of 1975 pay act	956,000
Full-year cost of 1975 health insurance	176,000
Full-year cost of 1975 wageboard increases	461,000
Within grade promotions	1,007,000
Increased cost of contractual services	1,263,000
Increased cost of supplies	1,171,000
Increased cost of maintenance and repair	762,000
Increased cost of medical care under contract	5,135,000
One extra paid day	198,000
Operation of newly constructed facilities:	
Staffing of Zuni, N.M. hospital (48 positions)	209,000
Staffing and operating Owyhee, Nev. hospital (7 positions)	86,000
Staffing and operating Philadelphia, Miss. hospital (21 positions)	274,000
Full-year cost of staffing of Tuba City, Arizona hospital appropriated in 1975	1,753,000
Increased requirements resulting from 1975 program increases for:	
Otitis Media	38,000
Increased payments for HSA service and supply fund, DHEW working capital fund, FTS, and BEC	179,000
Sub-Total, Mandatory Increases	13,668,000
Program:	
Patient care services	3,027,000
DECREASES	
Mandatory:	
Equipment for newly constructed facilities, appropriated in 1975-Zuni, N.M. hospital	-648,000
Net Increase (76 positions)	16,047,000

(a) HOSPITAL CARE

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
3,791	$76,061,394	3,906	$88,263,000	3,982	$99,142,000	+76	+$10,879,000

Need for Increase

The requested increase consists of:

Increases

Mandatory:

Full-year cost of 1975 pay act	948,000
Full-year cost of 1975 health insurance	172,000
Full-year cost of 1975 wageboard increases	461,000
Within grade promotions	988,000
Increased cost of contractual services	1,263,000
Increased cost of supplies	1,171,000
Increased cost of maintenance and repair	762,000
One extra paid day	196,000
Operation of newly constructed facilities:	
Staffing of Zuni, New Mexico hospital (48 positions)	209,000
Staffing of Owyhee, Nevada hospital (7 positions)	86,000
Staffing of Philadelphia, Mississippi hospital (21 positions)	274,000
Full-year cost of staffing of Tuba City, Arizona hospital appropriated in FY 1975	1,753,000
Increased requirements resulting from 1975 program increases for:	
Otitis media	38,000
Increased payments for HSA service and supply fund, DHEW working capital fund, FTS, and BEC	179,000
Sub-Total Mandatory Increases	8,500,000

Program

Patient Care Services	3,027,000

Decreases:

Equipment for newly constructed facilities, appropriated in 1975 - Zuni, New Mexico hospital	-648,000
NEW INCREASE (76 positions)	10,879,000

Patient Care Services - Program Increase $3,027,000

Hospital Care

The direct patient care program provides a full range of inpatient hospital care and services to 507,000 American Indians and Alaska Natives

through the operation of 51 hospitals ranging in size from 6 to 191 beds. Indian Health Service hospitals are experiencing a continued increase in the demand for services. During Fiscal Year 1974, Indian Health Service hospital admissions were 73,402 (excluding births). The projected number of hospital admissions for Fiscal Years 1975 and 1976 are 76,000 and 78,000 respectively. The leading cause for hospitalization in Indian Health Service facilities is childbirth, complications of pregnancy and puerperium which corresponds with one of the Indian Health Service's highest priorities - the provision of maternal and child health services. The increase in resources will strengthen the Indian Health Service inpatient care program thereby positively affecting the quality of health services provided to Indian and Alaskan Native people; and, to the degree feasible, to support contracts, with emphasis on tribal organizations, for the provision of supplementary support services to Indian Health Service hospitals.

Laboratory Service

The Laboratory Improvement Program represents a planned effort to completely upgrade the IHS Clinical Laboratory Program, and to enable it to meet the standards set by the Clinical Laboratory Improvement Act of 1967. The increase will be used to replace obsolete laboratory equipment, purchase mechanized, semi-automated and automated instruments which will speed up procedures, improve manpower utilization by reducing technician time, provide better quality control in methodology, and to train technicians in the newer techniques and methodologies for quality laboratory procedures.

Otitis Media

The Otitis Media Program of the IHS is directed at the most prevalent reportable disease affecting American Indians. Eighty-four percent of those affected are children 15 years of age and under. Otitis media is a disease affecting the middle ear which, left untreated, results in ear perforation and hearing loss which represents a significant handicap to learning, social adaptation, and future employability. The increase will be used to establish otitis media programs in areas that currently do not have such programs and to expand presently existing otitis media programs to the point where case finding services will be available on a regular basis to 65% of the population served compared to the current level of 50%. Expanded program emphasis will be placed on the prevention of chronic otitis media and non-surgical remedial programs for those affected by this disease. This will be achieved by enlarging the number of Indian audiometric technicians and furthering the training of those currently engaged in early identification and intervention programs and community health education activities. Services of these technicians will be provided by contracts with tribes and educational institutions. In addition, programs for improving the skills of general medical staff in the identification and treatment of acute otitis media will be expanded. Programs for remedial services (including speech and language) will be established on a limited basis in selected areas, and the present hearing aid distribution program will be doubled, making hearing aids available to 20% of those currently in need.

Plan of Work

The provision of high quality comprehensive inpatient hospital services remains one of the Indian Health Service's highest priorities. To date, 25 of the 51 Indian Health Service hospitals are accredited by the American Hospital Association's Joint Commission on Hospital Accreditation (JCHA). Emphasis will continue to be placed on attaining and maintaining the standards provided by the JCHA. Three replacement hospitals are scheduled for completion in Fiscal Year 1976 (Zuni, New Mexico, Owyhee, Nevada, and Philadelphia, Mississippi) and will operate during a portion of the year at a higher

service level. The Tuba City, Arizona hospital, completed in Fiscal Year 1975, will operate throughout Fiscal Year 1976.

The 76 additional positions included in this request will be located at newly constructed facilities at Zuni, New Mexico hospital, Owyhee, Nevada hospital, and Philadelphia, Mississippi hospital.

Expected workloads for the hospital program are shown on the following table. The 1975 and 1976 Average Daily Patient Census reflect a continuation of long range trends offset by opening of new facilities in 1976.

INDIAN HEALTH SERVICE HOSPITALS

	WORKLOAD DATA 1/			
Workload Category	1974 Actual	1975 Estimate	1976 Estimate	Increase (+) Decrease (-)
Average Daily Patient Census (Excluding Newborns)	1,376	1,357	1,367	+ 10
Total Admissions (Excl. Births)	73,402	76,000	78,000	+ 2,000
Average Length of Stay (days)	6.8	6.5	6.4	-.1
Total Births-All Indian Health Service Hospitals	9,690	9,600	9,500	-100

(b) CONTRACT CARE

Actual Obligation 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
40	$40,619,524	40	$45,913,000	40	$51,081,000	-	+$5,168,000

Need for Increase

The requested increase consists of:

Increases

Mandatory:

Full-year cost of 1975 pay act	$ 8,000
Full-year cost 1975 health insurance	4,000
Within Grade promotions	19,000
Increased cost of medical care under contract	5,135,000
One extra paid day	2,000
Total Increases	5,168,000

1/ Hospital outpatient visits included under "Ambulatory Care" sub-activity.

An analysis of the rates negotiated in agreements with the various hospitals, clinics, physicians, and dentists with which the Indian Health Service has current formal contracts, indicates a continuing upward trend. In order to provide the same level of services in 1976 as was provided in 1975, an increase of $5,135,000 is requested for these rising costs.

Plan of Work

The request of $51,081,000 is for the purchase of medical care through contractual arrangements and is an essential element of the Indian Health Service program. Formal agreements are entered into with community hospitals, private physicians and clinic groups, dentists and providers of ancillary health services to assure that quality care is obtained. Through this mechanism health services are practically and effectively provided for the widely scattered and small groups of Indians and Alaska Natives who urgently need such services. In addition, the use of contract services makes possible special diagnostic and therapeutic services which many small and intermediate-sized Indian Health Service hospitals cannot provide. Emergency hospital and medical care services, frequently required at locations not readily accessible to health facilities directly operated by the Indian Health Service, are acquired with these funds.

The table on the following page indicates the distribution of funds under the various items requested for the 1976 program. It also shows how 1974 funds were obligated and the plan for funding for 1975. The actual experience of average daily patient loads are reported for 1974 together with expected levels for 1975 and 1976.

As noted on this table, the average patient load for neuropsychiatric hospitalization is expected to decline to zero in 1975. This decline is the result of state programs assuming more responsibility for neuropsychiatric hospitalization.

With continued emphasis on medical care to reduce the unmet health care needs, the average daily patient load for general hospitalization is estimated to increase by 33 in FY 1975. At the beginning of FY 1975, the Indian Health Service had identified $21.8 million primarily in unmet surgery needs, such as ear surgery, abdominal hernia repairs, gallbladder and bile duct surgery, and extraction of cataract of the eye. This unmet need at the end of FY 1976 will be $11.8 million (based on 1976 price) as a result of program increases received in 1974 and 1975 and continued in 1976.

INDIAN HEALTH SERVICE
Contract Care

	1974 Actual	1975 Estimate	1976 Estimate
Hospitalization:			
General:			
Average Daily Patient Load	445	478	478
Per Diem Rate	$109.48	$124.81	$142.28
Amount	$17,782,411	$21,776,000	$24,892,000
Neuropsychiatric:			
Average Daily Patient Load	19	--	--
Per Diem Rate	$38.14	--	--
Amount	$264,523	--	--
Sub-Total Hospitalization:			
Average Daily Patient Load	464	478	478
Amount	$18,046,934	$21,776,000	$24,892,000
Patient and Escort Travel	1,839,498	2,115,000	2,432,000
Professional Field Supv.	776,860	814,000	847,000
Physician Services	11,527,612	13,265,000	14,407,000
Dental Services	3,796,069	2,943,000	3,240,000
Other Services	4,632,551	5,000,000	5,263,000
TOTAL	$40,619,524	$45,913,000	$51,081,000

ITEMIZATION OF ESTIMATE

Patient Care

Obligations by Object	Actual 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
11 Personnel Compensation	$43,832,768	$48,007,000	$51,930,000	+$3,923,000
12 Personnel Benefits	6,526,743	9,280,000	9,959,000	+ 679,000
21 Travel and Transportation of Persons	3,292,680	2,545,000	3,603,000	+ 1,058,000
22 Transportation of Things	1,033,179	1,041,000	1,080,000	+ 39,000
23 Rent, communication, and utilities	3,414,487	4,986,000	5,167,000	+ 181,000
24 Printing and reproduction .	370,560	220,000	220,000	---
25 Other services .	46,170,489	56,886,000	65,111,000	+ 8,225,000
26 Supplies and materials	8,590,302	9,716,000	11,796,000	+ 2,080,000
31 Equipment	3,162,493	1,977,000	1,839,000	- 138,000
32 Lands and structures ...	766,768	---	---	---
42 Insurance, claims, and indemnities	2,641	---	---	---
Subtotal ...	117,163,110	134,658,000	150,705,000	+16,047,000
Deduct quarters and subsistance charges	-482,192 1/2/3/	-482,000 1/3/	-482,000 1/	---
Net obligations .	116,680,918	134,176,000	150,223,000	+16,047,000

1/Excludes reimbursements as follows: FY 1974 - $1,435,560; FY 1975 - $1,602,000; FY 1976 $1,602,000

2/ Reflects a 1975 comparative transfer of $+92,000 from "Office of Assistant Secreatry for Health", for CO Personnel Functions; reflects a 1975 Comparative Transfer of -$34,000 to "Departmental Management, Office of the Secretary"

3/ Reflects a 1976 Comparative Transfer from the "Health Services" Appropriation of $687,000 for California Rural Indian Health Board.

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2. Preventive Health and Ambulatory Care
(Dollars in Thousands)

	Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
	Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
(a) Sanitation...	469	$7,968	476	$8,629	481	$9,077	+ 5	+$ 448
(b) Dental.....	477	8,183	504	8,997	515	9,579	+ 11	+ 582
(c) Public Health Nursing.....	278	3,980	283	4,504	289	4,853	+ 6	+ 349
(d) Health Ed. ..	99	1,778	100	1,963	102	2,113	+ 2	+ 150
(e) Field Medical Services....	414	24,571	424	30,160	424	36,579	--	+ 6,419
(f) Ambulatory Care 1/...	2,055	38,209	2,247	47,933	2,331	53,770	+ 84	+ 5,837
TOTAL ..	3,792	84,689	4,034	102,186	4,142	115,971	+108	+ 13,785

Increases

Mandatory:

Full-year cost of 1975 pay act	$ 956
Full-year cost of 1975 health insurance	165
Full-year cost of 1975 wage board increases	204
Within grade promotions	929
Increased cost of contractual service	1,437
Increased cost of supplies	1,059
Full-year cost of 250 CHR's trained in 1975	2,841
Increased contractual level of 968 CHR's employed in 1975	623
Increased cost of 250 CHR's in training in 1976	96
Increased level of 185 ANCHAT's employed in 1975	152
One extra paid day	198
Operation of newly constructed facilities:	
Staffing of Zuni, N. M. hospital (43 positions)	186
Staffing of Owyhee, Nevada hospital (15 positions)	172
Staffing of Philadelphia, Miss. hospital (29 positions)	366
Staffing of Lame Deer, Montana clinic (16 positions)	100
Staffing of Tohatchi, New Mexico clinic (3 positions)	50
Staffing of Riverside, Calif. clinic (2 positions)	40
Full-year cost of staffing of Tuba City, Ariz. hospital appropriated in 1975	1,445
Increased Requirements Resulting from 1975 Program Increases for:	
Community Health Medic	15
Operation of Health Center at White Eagle, Oklahoma	221
Total Increases Mandatory	11,255

Program

Preventive health services (Ambulatory Care)	1,695
Tribal Programs	1,000
Total Increases	2,695

Decreases

Mandatory:

Non-recurring increases appropriated in 1975 for:	
Study of Unmet Needs of STOWW	-100
Operation of Isleta Clinic (Equipment)	- 65
Total Decreases	-165
NET INCREASE (108 positions)	13,785

1/ Hospital outpatient Departments and Field Clinics.

(a) SANITATION

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
469	$7,968,410	476	$8,629,000	481	$9,077,000	+5	+$448,000

Need for Increase

The requested increase consists of:

Increases	
Mandatory:	
Full-year cost of 1975 pay act	$101,000
Full-year cost of 1975 health insurance	18,000
Within grade promotions	122,000
Increased cost of contractual services	31,000
Increased cost of supplies	24,000
One extra paid day	24,000
Operation of newly constructed facilities:	
Staffing of Zuni, New Mexico hospital (2 positions)	9,000
Staffing of Owyhee, Nevada hospital (1 position)	17,000
Staffing of Philadelphia, Miss. hospital (2 positions)	15,000
Full-year cost of staffing of Tuba City, Arizona hospital appropriated in FY 1975	61,000
Increased requirements resulting from 1975 program increases for:	
Operation of health center at White Eagle, Oklahoma	26,000
Total Increases	448,000

The physical environment of the American Indian and Alaska Native in most locations throughout the United States is characterized by severe climatic conditions, rough, often treacherous geographical setting, and extreme isolation. Survival under these conditions attests to the ingenuity, adaptability and self-determination of these people.

This harsh environment, coupled with decades of economic deprivation and the resulting lack of basic environmental amenities, has contributed greatly to the exceptionally high incidence of disease, and premature deaths, particularly among infants. Since the passage of P.L. 86-121 in 1959, the Indian Health Service has been constructing sanitation facilities for Indian and Alaska Native homes and communities. Provision of sanitation facilities, together with the growing accomplishments of housing programs of other Federal agencies, has done much to improve the environment of these people. However, many families still lack basic facilities and are subject to the serious health hazards associated with such

environmental deficiencies. Other environmental conditions which result from improper sanitation, including insect and wild rodent vectors, continue to result in sporadic epidemics on Indian reservations.

To combat these and other environmentally related problems, the staff of the environmental health program provides a wide range of environmental health services and engineering and technical support in the implementation of sanitation facilities projects, including those undertaken in coordination with Federal and tribal housing agencies.

Basic Environmental Health Activities

A continuing program of consultations and services is made available to Indian and Alaska Native families and communities to assist them in implementing a comprehensive environmental health program. These consultations and services help the Indian and Alaska Natives to identify and correct environmental conditions which are detrimental to their health status, and to assure sustained improvement in the quality of their lives. While still encompassing the traditional environmental concerns of the past, the services presently provided by IHS are very expansive particularly with regard to consultative and technical services in connection with existing tribal enterprises and planned economic and community development projects. Services of an occupational health and safety nature are also being expanded. An essential element of these services is the emphasis on community guidance of program activities. This will permit the integration of those activities into the total health, social, and economic structure of Indian and Alaska Native communities.

In addition to the foregoing, the basic environmental health activities incorporate a consultative service to assure that a high level of environmental sanitation is maintained in Federal and other facilities serving Indians, particularly those of the Bureau of Indian Affairs and the Indian Health Service.

In the provision of these basic sanitation services, the Indian and Alaska environmental health aides/technicians are key members of the staff who help bridge the gap of cultural differences to bring modern environmental health practices to Indian communities and groups. These aides/technicians are trained by the Indian Health Service in the basic elements of environmental health and they, in turn, impart this knowledge to their own people. A number of Indian Environment Health technicians have been selected for long term training which will provide them with necessary knowledge and technical skills to qualify for professional sanitarian positions. A few have already achieved this status. The Service is also initiating a plan to train Tribal Health Workers to perform certain environmental health services under contractual arrangements with their Tribes.

Sanitation Facilities Construction Activity

The sanitation facilities construction activity complements the basic environmental health activity by providing tangible support in those situations where the need for facilities exceeds the available resources of the Indian people. The Indian Health Service is authorized to provide this assistance under Public Law 86-121, the Indian Sanitation Facilities Construction Act. The activity employs a coordinated Tribal-Federal attack to correct gross deficiencies in individual sanitation facilities. Staffing to implement this work is supported under the Preventive Health and Ambulatory Care program of the budget.

In the construction activity, Indians participate in project planning and construction and, after being equipped and trained by the Indian Health Service, assume responsibility for the operation and maintenance of the completed facilities. In addition, Indian families, Tribes, housing authorities, and groups make contributions toward the project in the form of labor and materials to the extent deemed equitable and practicable.

Plan of Work

It is estimated that 155,000 basic and special environmental health services will be provided during 1976. This compares with a level of 150,000 services in 1974 and 153,000 services in 1975. In addition, projects will be initiated to serve 9,500 homes and sanitation facilities in FY 1975. Of these, 8,000 will be new or improved homes being constructed under Federal or Tribal housing programs, and 1,500 existing homes within or adjacent to housing project sites. This compares with a 1974 level of 11,321 homes and a 1975 level of 13,025 homes.

The 5 additional environmental health positions provided for in this request will be located at new facilities at Zuni, New Mexico, Owyhee, Nevada, and Philadelphia, Mississippi.

(b) Dental

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
477	$8,182,660	504	$8,997,000	515	$9,579,000	+11	+$582,000

Need for Increase

The requested increase consists of:

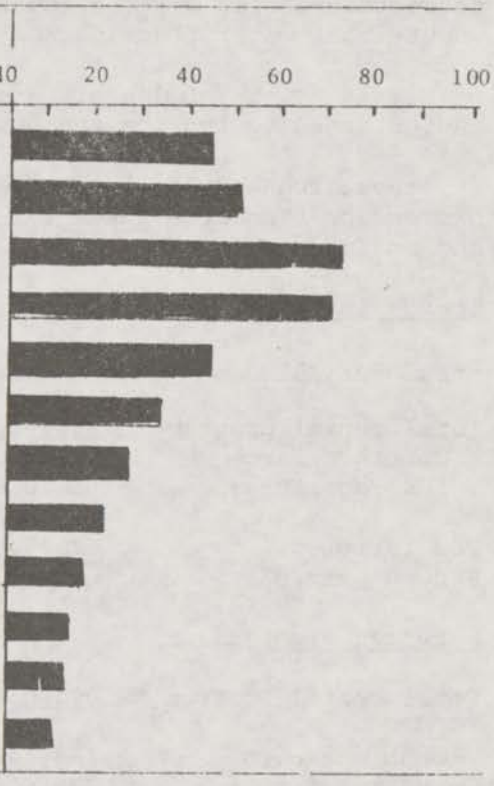
Increases	
Mandatory:	
Full-year cost of 1975 pay act	$ 99,000
Full-year cost 1975 health insurance	10,000
Within grade promotions	81,000
Increased cost of contractual services	23,000
Increased cost of supplies	83,000
One extra paid day	23,000
Operation of newly constructed facilities:	
Staffing of Zuni, New Mexico hospital (4 positions)	16,000
Staffing of Philadelphia, Miss. hospital (2 positions)	15,000
Staffing of Lame Deer, Mont. clinic (2 positions)	4,000
Staffing of Tohatchi, New Mexico clinic (3 positions).	50,000
Full-year cost of staffing of Tuba City, Arizona hospital appropriated in FY 1975	122,000
Increased requirements resulting from 1975 program increases for:	
Operation of health center at White Eagle, Oklahoma	56,000
Total increases (11 positions)	582,000

The dental program of the Indian Health Service emphasizes preventive, educational and corrective services to school age children. In Fiscal Year 1974, 42.2 percent of the total estimated need for dental services was provided.

The following table and graph illustrate the proportion of needed dental services that the Indian Health Service was able to provide in Fiscal Year 1974. The chart clearly points up the program emphasis placed upon dental care to the young to achieve the greatest preventive result. Most adults receive only emergency services.

PERCENT OF DENTAL SERVICES REQUIRED THAT WERE PROVIDED
IN INDIAN HEALTH SERVICE IN FY 1974 BY AGE GROUP

Age Group of Patients	Services Required*	Services Provided	Percent Provided
ALL AGES	2,198,853	927,701	42.2
Under 5	104,587	52,306	50.0
5-9	372,954	265,710	71.2
10-14	320,072	224,218	70.1
15-19	291,347	123,741	42.5
20-24	172,343	62,939	36.5
25-34	292.851	85,499	29.2
35-44	255,688	52,343	20.5
45-54	184,703	32,480	17.6
55-64	123,182	17,627	14.3
65-74	59,778	8,439	14.1
75+	21,348	2,399	11.2



*Estimates applied to 55 percent of the American Indian and Alaska Native population

Program Accomplishments in 1974 and early 1975

Between 1973 and 1974, the number of people served increased 4.7 percent, and the services provided increased 7.5 percent, all dental resources considered (in IHS facilities and under contract).

The quality of dental care evaluation system continued to be used for all dental clinicians in the IHS. The system provided opportunities for improving the quality of clinical work, record keeping, patient management, and community services.

Plan of Work - 1976

Basic preventive and corrective services will continue with emphasis on maintaining and expanding services among the young. A gradual shift from a school controlled to a family oriented program will occur as the program becomes capable of providing more than emergency care to adults. College students and parents will receive primary attention among adults.

The water fluoridation surveillance system will continue with dental and environmental health staff working together to monitor Indian community water systems which have fluoridation equipment installed. Systems not functioning properly will be identified and corrective action will be taken, with Indian community leaders, to ensure that water fluoridation systems are operated properly.

The quality of dental care evaluation system will be refined and enlarged to include the evaluation of dentists under contract.

Research and development will continue for establishing profession standards in dental program efficiency, effectiveness and staff development.

Trends in Clinical Services

Persons Treated	1973	1974	1975 est.	1976 est.
Total dental program	186,913	195,615	202,000	203,000
Contract care	30,865	34,950	36,000	36,000
IHS facilities	156,048	160,665	166,000	167,000
Population	476,349	488,839	498,000	508,000
Percent served	39.0%	40.0%	40.6%	40.0%
Services Provided				
Total Dental Program	863,057	927,701	955,000	959,000
Contract care	134,148	151,954	166,000	166,000
IHS facilities	728,909	775,747	789,000	793,000
Services required	2,100,042	2,199,000	2,100,000	2,090,000
Percent provided	41.1%	42.2%	45.5%	45.9%

The 11 additional positions contained in this request will be located at the following newly constructed facilities: Zuni, N. M. hospital; Philadelphia, Miss. hospital; Lame Deer, Mont. clinic, and Tohatchi, N. M. clinic.

(c) Public Health Nursing

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
278	$3,979,652	283	$4,504,000	289	$4,853,000	+6	+$349,000

Need for Increase

The requested increase consists of:

Increases

Mandatory:

Full-year cost of 1975 pay act	80,000
Full-year cost of 1975 health insurance	15,000
Within grade promotions	61,000
Increased cost of contractual services	69,000
Increased cost of supplies	17,000
One extra paid day	14,000
Operation of Newly Constructed Facilities:	
Staffing of Zuni, New Mexico hospital (2 positions)	9,000
Staffing of Owyhee, Nev. hospital (2 positions)	14,000
Staffing of Lame Deer, Mont. Clinic (2 positions)	6,000
Full-year cost of staffing of Tuba City, Arizona hospital appropriated in FY 1975	51,000
Increased Requirements Resulting from 1975 Program Increases for:	
Operation of health center at White Eagle, Oklahoma	13,000
Total Increase (6 positions)	349,000

Public Health Nursing is the core of any public health program. The activities of the public health nurse include case finding, health teaching, counseling, and follow-up services to provide continuity of care in the home, school, hospital, and clinic. These services are essential to an effective community generalized public health program. The public health nurse's unique contribution is through her first hand knowledge of the families and their home situations, and through the impact of the nurse-family relationship as a therapeutic and teaching force. This places emphasis on the importance of sustained contact and on the inter-personal facets of nursing practice. The public health nurse's effectiveness is largely dependent upon establishing and maintaining a relationship of mutual trust and respect with the families served.

With the increasing number of the various types of indigenous auxiliary workers now being utilized, better distribution of professional and non-professional functions and greater teamwork are possible, but more of the professional public health nurse's time and effort is involving coordination of the "team effort," and supervision and guidance of the non-professional staff.

In addition, some public health nurses with additional special educational preparation are evolving into the new role of Family Nurse Practitioner, taking over some primary care functions formerly carried out only by the physician, thus further extending the services of the physician by freeing him for those services that truly require his skill and knowledge.

Plan of Work

Program efforts will be concentrated on coordination of team effort both within the public health nursing group and with other health personnel, particularly the Community Health Representatives, maternal and child health aides, and other indigenous auxiliary workers. Efforts will be further intensified in the following:

1. Expanding and strengthening of the public health nursing program in the newly constructed facilities at Tuba City, Zuni, Owyhee, Lame Deer, and White Eagle.

2. Follow-up of "high risk" families.

3. Strengthening of health teaching in homes, hospitals, clinics, schools, and the community, with the goal of preventing disease or retarding its progress; reducing the ill effects of unavoidable disease; teaching a member of the family to give nursing care to the non-hospitalized sick and handicapped; development of and practice of habits conducive of health; and increasing the capability of families, groups, and communities to cope with health problems that arise and with problems of daily living.

4. Provision of counseling and guidance in health and family living to teenagers and young adults.

5. Prevention of complications of pregnancy and improvement of the general health status of expectant mothers and their infants by getting them under care early in pregnancy, and through family planning education.

6. Further reduction of infant morbidity and mortality through early visits to new infants, and by giving highest priority to infants in high risk families.

7. Prevention of infectious disease in infants and children by achieving and maintaining a high level of immunization.

In FY 1976, it is estimated that public health nursing services will be provided to approximately 27,800 families as compared with 26,720 in 1974 and 27,200 in 1975. This constitutes about 29% of Indian families estimated to be needing the services, (90% of all families).

The 6 additional positions contained in this request will be located at the following newly constructed facilities: Zuni, New Mexico hospital; Owyhee, Nevada hospital, and Lame Deer, Montana clinic.

(d) Health Education

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
99	$1,777,789	100	$1,963,000	102	$2,113,000	+2	+$150,000

Need for Increase

The requested increase consists of:

Increases

Mandatory:

Full-year cost of 1975 pay act	$ 46,000
Full-year cost of 1975 health insurance	15,000
Within grade promotions	36,000
Increased cost of contractual services	2,000
Increased cost of supplies	12,000
One extra paid day	7,000
Operation of newly constructed facilities:	
Staffing of Zuni, New Mexico hospital (1 position)	4,000
Staffing of Philadelphia, Miss. hosp. (1 position)	15,000
Full-year cost of staffing of Tuba City, Arizona hospital appropriated in FY 1975	13,000
Total increase (2 positions)	150,000

The health education program of the Indian Health Service is designed to assist the Indians and Alaska Natives to assume greater individual, family, and community responsibility in health matters through involvement and participation in community and health related activities.

The aims of the program is to provide all patients in medical care facilities with specific and organized health education activities to prevent recurrence and spread of diseases and to provide Indian populations with health education experiences designed to reduce the risk from disease and injury.

Plan of Work

In 1976 emphasis will continue to be placed on efforts to achieve greater involvement of the Indian and Alaska Natives in their own health affairs in order, to enhance:

1. the development of Indian leadership in the assumption of responsibility for health matters, and to involve more completely other agencies that have potentials for contributing to improving the health of Indian population.

2. community acceptance and use of health care services and preventive resources.

3. the development of decision-making skills among the Indian and Alaska Natives.

4. opportunities for use of educational potentials in health program planning and operation.

5. coordination of activities to incorporate health instruction in the curriculum of schools - encourage the health instruction concept among teachers - tie in community education programs in school health projects to increase knowledge of wholesome living conditions.

The 2 additional positions contained in this request will be located at Zuni, New Mexico hospital and Philadelphia, Mississippi hospital.

(e) FIELD MEDICAL SERVICES

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
414	$24,571,356	424	$30,160,000	424	$36,579,000	--	+$6,419,000

Need for Increase

The requested increase consists of:

Increases

Mandatory:

Full-year cost of 1975 pay act	$ 96,000
Full-year cost 1975 health insurance	16,000
Full-year cost of 1975 wageboard increases	19,000
Within Grade promotions	100,000
Increased cost of contractual services	843,000
Increased cost of supplies	67,000
Full-year cost of 250 CHR's trained in 1975	2,841,000
Increased contractual level of 968 CHR's employed in 1975	623,000
Increased cost of 250 CHR's in training in FY 1976	96,000
Increased contractual level of 185 ANCHAT's employed in 1975	152,000
One extra paid day	21,000
Sub-Total Mandatory Increases	4,874,000

Program:

Preventive health services	645,000
Tribal programs	1,000,000
Sub-Total Program Increases	1,645,000

Decreases:

Non-recurring increases appropriated in 1975 for: Study of unmet needs of STOWW	-100,000
Net Increase	6,419,000

Preventive Health Services - Program Increase $645,000

Eye Care

The increase will be used to expand existing programs and to provide eye care services in areas not currently served, and for the training and equipping of ancillary health personnel in eye care screening procedures.

Mental Health

The 1976 increase will permit the Indian Health Service Mental Health Program to increase and extend the availability of essential mental health services, through the use of contract consultants, to an additional 6% of the Indian population thereby reaching a total of 72% of the population that will have access to essential mental health services. Emphasis will continue on preventive services and to high risk groups such as children and youth.

Tribal Programs - Program increase - $1,000,000

An integral part of the Indian Health Service program is to provide Indians and Alaska Natives with opportunities for maximum involvement in defining and meeting their own health needs. This will be carried out in a number of ways; (a) through Tribal Development contracts, in which Tribes are provided funds and technical assistance in order to organize and develop their own health institutions; (b) by funding tribal health projects such as the 16 Indian Health corporations which comprise the California Rural Indian Health Board (CRIHB) to assist them in developing clinics, in outreach work through employment of community health aides, and other phases of comprehensive health planning; and (c) by leasing clinic facilities from Alaska Native groups where no Federal facilities exist. Funds are also provided to equip these facilities and provide the necessary supplies and utilities so that Alaska Native health aides and itinerant IHS staff can effectively deliver quality health services to Alaska Natives. In urban settings, Federal health services are usually unavailable and the Indian family is at a loss as to how and where to obtain health services. Nine Pilot Urban Health Projects have therefore been established and are actively identifying community resources that are available to Indian people in the community. These projects identify gaps between the health resources available and the expressed needs of the people and recommend to the resource agencies methods of extending health services and programs to meet these needs.

In all of these categories, the common denominator is that of providing the Indian people with the wherewithal to develop their capabilities to cope and to encourage their increased involvement in managing their health affairs. This assistance may be in terms of direct funding, education and technical assistance, leased space,

or in the case of urban projects, the provision of assistance to urban Indian groups so that they can more effectively utilize community health resources.

The increased resources for tribal operations and technical assistance will permit approximately ten (10) percent (or five projects) of the existing tribal health delivery programs that are currently in the developmental phase, to become operational in Fiscal Year 1976. It will also fund that portion of ten (10) existing projects that has become operational, and increase their technical assistance capabilities.

Plan of Work

The Field Medical Services program provides medical support to the field health program, which extends health services into the community and homes, providing counseling and other health information and services to residents of the locale being served. It also supports the hospital program by providing post-hospitalization after care to recently discharged patients. This program functions through a system of 86 centers (including 26 school health centers), and several hundred smaller health stations and satellite clinics. It provides a full range of preventive care, and public health services to the Indian and Alaska Native people. In addition, the field medical program provides specialized clinics for the communities in such activities as immunization programs, well-baby clinics, and pre- and post-natal clinics, as well as programs for otitis media, trachoma, venereal diseases, diabetes, family planning, and mental health services, etc.

The major thrust will continue to be the provision of access to high quality health care, with a strong emphasis on provision of community based services.

The growing participation of Indian and Alaska Native people in all phases of planning, operation and evaluation of the Indian Health Service health delivery system will be continued in 1976

A very close rapport has developed between the Indian and Alaska Native people and the Indian Health Service field medical team. This rapport has been reinforced by the Community Health Representatives and Alaska Community Health Aides. These Indian people are, in many instances, a major link between health needs and health resources. In Alaska they are the only people with health training in residence.

The function of Community Health Representatives is to act as liaison betwen community residents, existing health resources, and community health activities; to promote local participation in health programs; locate new health resources; devise innovative and more effective ways to utilize resources that are available; and to

carry out other tribally defined, high priority health functions. Trained by the Indian Health Service, they work in their communities for their respective tribes who are under contractual arrangement with the Indian Health Service. The 1976 budget provides for the employment of 1,218 representatives serving Indian people in the contiguous United States, and an additional 250 to be trained during the year. There will also be 185 Alaska Native Community Health Aides delivering services to residents to 156 isolated villages in Alaska. These health aides are trained to perform a wide range of medical services under professional supervision received via short-wave radio or telephone. For the last three years, the physician-health aide communication has been via satellite for fourteen villages in the Tanana Service Unit. In addition, on an experimental basis, a video capability has been provided between two villages, the Tanana Hospital and the Anchorage Medical Center under the experimental ATS-6 satellite. This experiment is being funded by other sources.

In 1976 there will be continued emphasis on tribally operated programs. Efforts will be intensified to purchase services from the tribes wherever possible.

Eight other Pilot Urban Health Projects are now established modeled after the Minneapolis Plan which has been in operation since FY 1972. These projects are designed to identify and seek solutions for health problems in metropolitan areas.

(f) Ambulatory Care

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
2,055	$38,208,976	2,247	$47,933,000	2,331	$53,770,000	+84	+$5,837,000

Need for Increase

The request increase consists of:

Increases

Mandatory:

Full-year cost of 1975 pay act	$534,000
Full-year cost of 1975 health insurance	91,000
Full-year cost of 1975 wageboard increases	185,000
Within grade promotions	529,000
Increased cost of contractual services	469,000
Increased cost of supplies	856,000
One extra paid day	109,000
Operation of newly constructed facilities:	
Staffing of Zuni, New Mexico hospital (34 positions)	148,000
Staffing of Owyhee, Nevada hospital (12 positions)	141,000
Staffing of Philadelphia, Miss., hospital (24 positions)	321,000
Staffing of Lame Deer, Montana clinic (2 positions)	90,000
Staffing of Riverside, California clinic (2 positions)	40,000
Full-year cost of staffing of Tuba City, Arizona hospital in 1975	1,198,000
Increased requirements resulting from 1975 program increases for:	
Community Health Medics	15,000
Operation of Health Center at White Eagle, Okla.	126,000
Sub-Total Mandatory Increases	4,852,000

Program:

Preventive health services (ambulatory care)	1,050,000

Decreases:

Non-recurring increase appropriated in 1975 for: Operation of Isleta Clinic (Equipment)	-65,000
NET INCREASE (84 positions)	5,837,000

Preventive Health Services (Ambulatory Care) - Program Increase-$1,050,000

An increase of $1,050,000 is requested for ambulatory patient care. Ambulatory care refers to the full range of outpatient health services provided at Indian Health Service Hospitals, health centers and field clinics. Within the Indian Health Service comprehensive health program, the ambulatory care program is the vital entry point for the delivery of primary medical care and preventive services. Patients requiring more definitive or extensive care are referred to the hospitals and medical centers. Post-hospitalization follow-up care is provided by the ambulatory care program. The preventive aspect of ambulatory care includes a vast range of activities such as pre-natal and post-natal care, maternal and child health services, well-child clinics, care of high risk mothers and babies, school health programs, prevention and control of communicable diseases including immunization, screening and follow-up of cases and contact e.g., tuberculosis, venereal diseases, and trachoma, and early detection and treatment of chronic conditions such as diabetes, arthritis, otitis media, orthopedic conditions and heart disease. The ambulatory care program is the vital link to improving the health of Indian and Alaska Native people.

Plan of Work

The Ambulatory Patient Care program functions through a system of 51 hospital outpatient departments, 86 health centers (including 26 school health centers), and several hundred smaller health stations and satellite clinics. It provides a full range of ambulatory medical care, preventive care, and provides medical support to the field health program, which extends health information and services to residents of the locale being served. The number of outpatient visits for health services at the hospitals, health centers and health stations is estimated at 2,499,000 for 1976. This compares with an estimated 2,436,000 in 1975 and 2,361,654 actual in 1974.

The provision of comprehensive community health services has not only become more complex, but it has also produced a significant change in the inpatient and outpatient workloads. A significant trend in the Indian Health program has been the increased utilization of ambulatory services. Increased emphasis on preventive rather than curative medicine has also been a factor resulting in substantial increases in the outpatient workload in the past few years. Although Indian Health Service hospital inpatient admissions (excluding births) increased 1.7 times, from 42,762 to 73,402 during the period FY 1955 through FY 1974, outpatient visits increased 5.2 times during the same period.

Advances made in the delivery of routine diagnostic, curative, and preventive services coupled with the increased acceptance by the Indians of the program have resulted in a substantial increase in the number of ambulatory services provided at the hospital and field clinics. The partnership for health that has evolved between the Indian Health Service and the Indian communities it serves has contributed significantly to the increased use of Indian Health services. This partnership has been evidenced by joint planning and evaluation of health service, by Indian groups building and leasing health facilities to the Indian Health Service, and the assumption by Indians of the management of many aspects of their health programs. Indian community concern is further evidence by the National Tribal Chairmen's Association (NTCA) and the National Indian Health Board's (NIHB) placement of the need for ambulatory care services as their top priority.

The increasing number of outpatient visits and the increasing number of services per visit have impacted heavily on the Indian Health Service's ability to provide the quality and quantity of ambulatory services required by the Indian communities served. The addition of $1,050,000 for FY 1976 to the Indian Health Service budget will assist in providing these additional services needed by the Indian people. The Indian Health Service's major thrust in 1976 will continue to be the provision of high quality health care, with a strong emphasis on provision of ambulatory patient care services.

ITEMIZATION OF ESTIMATE

Preventive Health and Ambulatory Care

Obligations by Object	Actual 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
11 Personnel compensation	$41,607,077	$48,606,000	$52,735,000	+$4,129,000
12 Personnel benefits	6,352,702	9,658,000	10,288,000	+ 630,000
21 Travel and transportation of persons	4,034,888	3,777,000	4,199,000	+ 422,000
22 Transportation of things	1,419,184	1,409,000	1,418,000	+ 9,000
23 Rent, Communications and utilities	2,918,882	3,594,000	3,765,000	+ 171,000
24 Printing and reproduction	60,455	143,000	143,000	---
25 Other services	18,911,663	26,049,000	33,987,000	+ 7,028,000
26 Supplies and materials	6,284,815	6,576,000	8,048,000	+ 1,482,000
31 Equipment	3,226,144	1,777,000	1,691,000	-86,000
32 Lands and structures	173,394	---	---	---
42 Insurance, claims, and indemnities	2,700	---	---	---
Subtotal	84,991,904	102,489,000	116,274,000	+13,785,000
Deduct quarters and subsistence charges	-303,061 1/2/3/	-303,000 1/2/3/	-303,000 1/	---
Net obligations	84,688,843	102,186,000	115,971,000	+13,785,000

1/ Excludes reimbursements as follows: 1974 - $109,916; 1975 - $113,000; 1976 - $113,000

2/ Reflects a 1975 comparative transfer: +$111,000 from "Office of Assistant Secretary for Health", for CO Personnel functions.

3/ Reflects a 1976 comparative transfer from the "Health Services" Appropriation of +$3,065,000 for Red Lake Tribal Council and Alaska Federation.

3. Program Management

Actual Obligations 1974		Amount Available 1975		Estimate 1976		Increase (+) Decrease (-)	
Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
128	$2,989,260	128	$3,062,000	128	$3,347,000	---	+$285,000

Need for Increase

The requested increase consists of:

Mandatory

Increases:

Full-year cost of 1975 pay act	$ 35,000
Full-year cost 1975 health insurance	9,000
Within grade promotions	51,000
Increased cost of contractual services	20,000
Increased cost of supplies	3,000
One extra paid day	10,000
Restoration of 1975 cut-back in program management	157,000
Total Increase	285,000

The Indian Health Service headquarters staff which is required to effectively direct a widely dispersed and extremely complex health service program, is funded under this activity. This staff includes (1) positions specializing in the field of curative and preventive health, (2) staff engaged in such specialized fields as nutrition, medical social work, statistics, financial management, program planning, and general services.

The 1976 estimate of $3,347,000 for the program management activity provides for a continuation of operation in 1976 comparable to that of 1975.

ITEMIZATION OF ESTIMATE

Program Management

		Actual 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
11	Personnel compensation	$2,106,138	$2,421,000	$2,623,000	$ +202,000
12	Personnel benefits	272,241	311,000	365,000	+ 54,000
21	Travel and transportation of persons	137,487	78,000	78,000	---
22	Transportation of things	7,877	4,000	10,000	+ 6,000
23	Rent, communications, and utilities	82,447	87,000	87,000	---
24	Printing and reproduction	1,501	1,000	1,000	---
25	Other services	351,148	136,000	156,000	+ 20,000
26	Supplies and materials	16,283	16,000	19,000	+ 3,000
31	Equipment	14,138	8,000	8,000	---
	Subtotal	2,989,260	3,062,000	3,347,000	+285,000
	Deduct quarters and subsistence charges	----	---	---	---
	Net obligations	2,989,260 1/	3,062,000	3,347,000	+285,000

1/ Reflects a 1975 comparative transfer: -$2,000 from "Office of Assistant Secretary for Health", for Commissioned Officer Personnel Functions.

ITEMIZATION OF ESTIMATE
Department of Health, Education, and Welfare
Health Services Administration
Activity Title: Indian Health Services

	Actual 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
Obligations	$204,359,021	$239,424,000	$269,541,000	$+30,117,000
Unobligated balance lapsing	186,270	---	---	
Budget Authority	204,545,291	239,424,000	269,541,000	+30,117,000
Transferred to operating expenses, public building service, GSA	+105,709	...	...	...
Comparative transfer to "Departmental Management, Office of the Secretary"	+34,000	...	...	...
Comparative transfer from "Office of Assistant Secretary for Health", for Commissioned Officer's Personnel Functions	-205,000	...	...	...
1974 Transfer for Increased Pay Cost	-9,854,000	-9,455,000	...	+9,455,000
1974 Supplemental for CMC, ANCHAT and Ambulatory Care	-6,591,000	...	...	
Comparative transfer from the "Health Services" Appropriation	-3,752,000	-3,752,000	...	+3,752,000
Appropriation	184,283,000	226,217,000	269,541,000	+43,324,000
11 Personnel compensation	87,434,983	99,034,000	107,288,000	+ 8,254,000
12 Personnel benefits ...	13,262,686	19,249,000	20,612,000	+ 1,363,000
21 Travel and transportation of persons .	7,465,055	6,400,000	7,880,000	+ 1,480,000
22 Transportation of things...	2,460,240	2,454,000	2,508,000	+ 54,000
23 Rent, communications, and utilities ..	6,415,816	8,667,000	9,019,000	+ 352,000
24 Printing and reproduction	432,516	364,000	364,000	...
25 Other services	65,433,300	83,971,000	99,254,000	+15,283,000

	Actual 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
26 Supplies and materials	$ 14,891,400	$ 16,308,000	$ 19,863,000	+$3,555,000
31 Equipment ...	6,402,775	3,762,000	3,538,000	- 224,000
32 Lands and structures	940,162	...	...	...
42 Insurance, claims, and indemnities	5,341	...	...	...
Sub-Total	205,144,274	240,209,000	270,326,000	+30,117,000
Deduct quarters and subsistence charges	-785,253	-785,000	-785,000	...
Total Obligations	1/2/3/ 204,359,021	1/ 3/ 239,424,000	1/ 269,541,000	+30,117,000

1/ Excludes reimbursements as follows: 1974 - $1,545,476; 1975 - $1,715,000; 1976 - $1,715,000.

2/ Reflects a 1975 comparative transfer + $205,000 from "Office of Assistant Secretary for Health", for Commissioned Officer Personnel Functions; reflects a 1975 Comparative Transfer: -$34,000 to "Departmental Management, Office of the Secretary"

3/ Reflects a 1976 Comparative Transfer from the "Health Services" appropriation of $3,752,000 for California Rural Indian Health Board, Red Lake Tribal Council and Alaska Federation.

Summary of Positions and Average Employment

Positions

Activity	1974	1975	1976
Patient Care:			
Hospital Care	3,791	3,906	3,982
Contract Care	40	40	40
Total	3,831	3,946	4,022
Preventive Health and Ambulatory Care:			
Sanitation	469	476	481
Dental	477	504	515
Public Health Nursing	278	283	289
Health Education	99	100	102
Field Medical Services	414	424	424
Ambulatory Care	2,055	2,247	2,331
Total	3,792	4,034	4,142
Program Management	128	128	128
Total	7,751 1/	8,108 1/	8,292 1/

Average Employment

Patient Care:			
Hospital Care	3,685	3,755	3,889
Contract Care	35	36	36
Total	3,720	3,791	3,925
Preventive Health and Ambulatory Care:			
Sanitation	413	414	423
Dental	450	475	491
Public Health Nursing	246	247	253
Health Education	91	95	96
Field Medical Services	361	363	375
Ambulatory Care	1,995	2,116	2,232
Total	3,556	3,710	3,870
Program Management	115	122	122
Total	7,391 2/	7,623 2/	7,917 2/

1/ Excludes reimbursable positions as follows: 1974-54; 1975-54; 1976-54.

2/ Excludes reimbursable average employment as follows: 1974-48; 1975-54; 1976-54.

APPROPRIATION TITLE: Indian Health Services

	1974 actual	1975 estimate	1976 estimate
		PERSONNEL SUMMARY	
Total number of permanent positions	7,751	8,108	8,292
Full-time equivalent of other positions	186	170	170
Average paid employment	7,391	7,623	7,917
Average GS grade	6.2	6.2	6.2
Average GS salary	$10,899	$11,058	$11,243
Average salary of ungraded positions ...	$10,576	$10,478	$10,394

Analysis by Activities

FY 1976 Estimate and July 1 - Sept. 30 Period
Indian Health Services

Activity	FY 1976 Estimate	Estimate July - Sept. 30, 1976
1. Patient Care	$150,223,000	$40,655,000
2. Preventive Health and Ambulatory Care	115,971,000	31,519,000
3. Program Management	3,347,000	854,000
Total Budget Authority	$269,541,000	$73,028,000

[INDIAN HEALTH SERVICES]

For expenses, not otherwise provided for, necessary to carry out the Act of August 5, 1954 (68 Stat. 674), and titles III and V of the Public Health Service Act, including hire of passenger motor vehicles and aircraft; purchase of reprints; payment for telephone service in private residences in the field, when authorized under regulations approved by the Secretary, [$226,217,000] $310,999,000 of which $41,458,000 shall be for acquisition of sites and portable structures, construction (including quarters for personnel) and equipment of facilities to remain available until expended

[INDIAN HEALTH FACILITIES]

[For construction, major repair, improvement, and equipment of health and related auxiliary facilities, including quarters for personnel; preparation of plans, specifications, and drawings; acquisition of sites; purchase and erection of portable buildings; purchase of trailers; and provision of domestic and community sanitation facilities for Indians, as authorized by section 7 of the Act of August 5, 1954 (42 U.S.C. 2004a), $57,431,000, to remain available until expended.]

For "Indian health" for the period July 1, 1976, through September 30, 1976, $84,112,000 of which $11,084,000 shall be for acquisition of sites and portable structures, construction (including quarters for personnel) and equipment of facilities, to remain available until expended: Provided, That funds contained herein may be used for hire of passenger motor vehicles and aircraft, purchase of reprints, and payment for telephone service in private residences in the field, when authorized under regulations approved by the Secretary. (Department of the Interior and Related Agencies Appropriation Act, 1975.)

PROGRAM AND FINANCING - Transition Period

Identification code 09-15-0390-0-1-551	July 1 - Sept. 30, 1976
Program by activities:	
Direct program:	
1. Patient care	$40,655,000
2. Preventive Health and Ambulatory Care	31,519,000
3. Program management	854,000
Total, direct program	73,028,000
Reimbursable program:	
1. Patient care	401,000
2. Preventive Health and Ambulatory Care	28,000
Total, reimbursable program	429,000
Total program costs, funded	73,457,000
Change in selected resources (undelivered orders)	---
10 Total obligations	73,457,000
Financing:	
Receipts and reimbursements from:	
11 Federal funds	-394,000
14 Non-federal sources	-35,000
40 Budget authority (appropriation)	73,028,000
Relation of Obligations to Outlays:	
71 Obligations incurred, net	73,028,000
72 Obligated balance, start of period	51,090,000
74 Obligated balance, end of period	-54,714,000
90 Outlays	69,404,000

Justification for Transition Period

Indian Health Services

Patient care $40,655,000

An estimate of $40,655,000 is requested for the period July 1, 1976 - September 30, 1976. This amount was computed on the basis of 25% of the FY 1976 President's Budget request plus mandatory cost increases.

Preventive Health and Ambulatory Care $31,519,000

An estimate of $31,519,000 is requested for the period July 1, 1976 - September 30, 1976. This amount was computed on the basis of 25% of the FY 1976 President's Budget request plus mandatory cost increases.

Program Management $854,000

An estimate of $854,000 is requested for the period July 1,1976 - September 30, 1976. This amount was computed on the basis of 25% of the FY 1976 President's Budget request plus mandatory cost increases.

Indian Health
Construction

Highlight Statement

Successful operation of the Indian Health program, serving approximately 507,000 Indian and Alaska Natives requires high quality health care facilities and provision of sanitation facilities. To meet this need the Indian Health Service operates a health care delivery system that includes 51 hospitals and 86 outpatient health centers where a broad range of health care is provided. In addition, sanitation facilities are provided for homes and public buildings of the Indian. Such facilities have been found to have a positive effect on the health status of these people. Despite the investments already made, many of the Indian facilities are not adequate. However the Indian Health Service continues in its effort to provide the the highest quality of care possible. The effort to provide acceptable facilities is evidenced by construction activities either initiated or planned. For example, a new 125-bed hospital at Tuba City, Arizona will open in May 1975. Contracts have been awarded and construction is underway for replacement hospitals at Zuni, New Mexico, Philadelphia, Mississippi, Owyhee, Nevada and Claremore, Oklahoma. Planning is completed for a new facility at Acoma-Laguna-Canoncito, New Mexico. Contract design drawings are either completed or underway for new or modernized hospitals at Shiprock, New Mexico, Whiteriver, Arizona, Santa Fe, New Mexico, and Bethel, Alaska,while a completed master plan study is being evaluated for Browning, Montana,hospital. Master plan studies recently completed for Rosebud, South Dakota, Sacaton, Arizona, and Red Lake, Minnesota,recommended replacement facilities in lieu of modernization.

Much of the comprehensive health program is carried out in field clinics usually located in remote areas and often the only source of medical service in the area. In 1975 construction contracts will be let for health centers at Riverside, California, and Lame Deer, Montana, and alterations to the Tohatchi, New Mexico, clinic.

The 1976 program request includes 13 units of quarters to house the additional staff that will be required to operate the medical facility currently under construction at Owyhee, Nevada. Also included are funds to purchase equipment for newly constructed facilities at Owyhee, Nevada, Philadelphia, Mississippi, Claremore, Oklahoma and Tuba City, Arizona.

The scarcity of water and the lack of adequate facilities for the disposal of human and other household wastes is another major deterrent to good health for Indians and Alaska Natives. The lack of these facilities contributes to the spread of micro-organisms responsible for diarrhea and dysentery, insect and rodent infestations in both Indian homes and communities, and to the contamination of foods and water supplies. However, a combined Federal-Tribal effort is being waged to overcome as much of this deficiency as possible. Through 1975 approximately 59,000 existing Indian and Alaska Native homes will have been included in projects to provide new or improved sanitation facilities. In addition, facilities will

have been constructed to serve approximately 44,000 new and improved homes built under Federal or Tribal housing programs.

The 1976 request provides funds for the provision of sanitation facilities for: (1) 8,000 housing units being constructed or improved by the Department of Housing and Urban Development, the Bureau of Indian Affairs, and Indian Tribes; (2) approximately 1,500 existing homes located within or adjacent to these housing program sites; and (3) provision of sanitation facilities for Indian ceremonial areas; engineering investigations; and correction of emergency problems.

Indian Health Facilities

Summary of Increases and Decreases

Appropriation, 1975		$57,431,000
Unobligated balance from prior years		5,919,359
Total available for obligation		63,350,359
Decreases:		
Hospitals	$15,338,138	
Outpatient care facilities	1,382,149	
Community facilities	1,079	
Sanitation facilities	38,563,993	
Personnel quarters	5,225,000	60,510,359
Carried into 1976		2,840,000
Increases (1976 appropriation request):		
Hospitals		2,190,000
Outpatient care facilities		0
Sanitation facilities		38,554,000
Personnel quarters		714,000
Total available for obligation		44,298,000

ANALYSIS BY ACTIVITY

AMOUNTS AVAILABLE FOR OBLIGATION

	Amount Available 1975	Fiscal Year 1976 Unobligated Balance From Prior Years	Fiscal Year 1976 1976 Budget Request	Fiscal Year 1976 Estimated Total Available	Total Available 1976 compared to Total Available 1975
Hospitals	$15,816,138	$ 478,000	$2,190,000	$2,668,000	$-13,148,138
Outpatient care facilities	1,444,149	62,000	0	62,000	- 1,382,149
Community facilities	1,079	...	...	...	- 1,079
Sanitation facilities	40,588,993	2,025,000	38,554,000	40,579,000	- 9,993
Personnel quarters	5,500,000	275,000	714,000	989,000	- 4,511,000
Total	63,350,359	2,840,000	41,458,000	44,298,000	-19,052,359

Obligations by Activity

	1974 Actual	1975 Estimate	1976 Estimate	Increase(+) Decrease(-)
Hospitals	$10,377,439	$15,338,138	$2,668,000	$-12,670,138
Outpatient care facilities	336,495	1,382,149	62,000	- 1,320,149
Community facilities	530,000	1,079	...	- 1,079
Sanitation facilities	38,230,473	38,563,993	38,651,000	+ 87,007
Personnel quarters	13,834	5,225,000	966,000	- 4,259,000
Total	49,488,241	60,510,359	42,347,000	-18,163,359

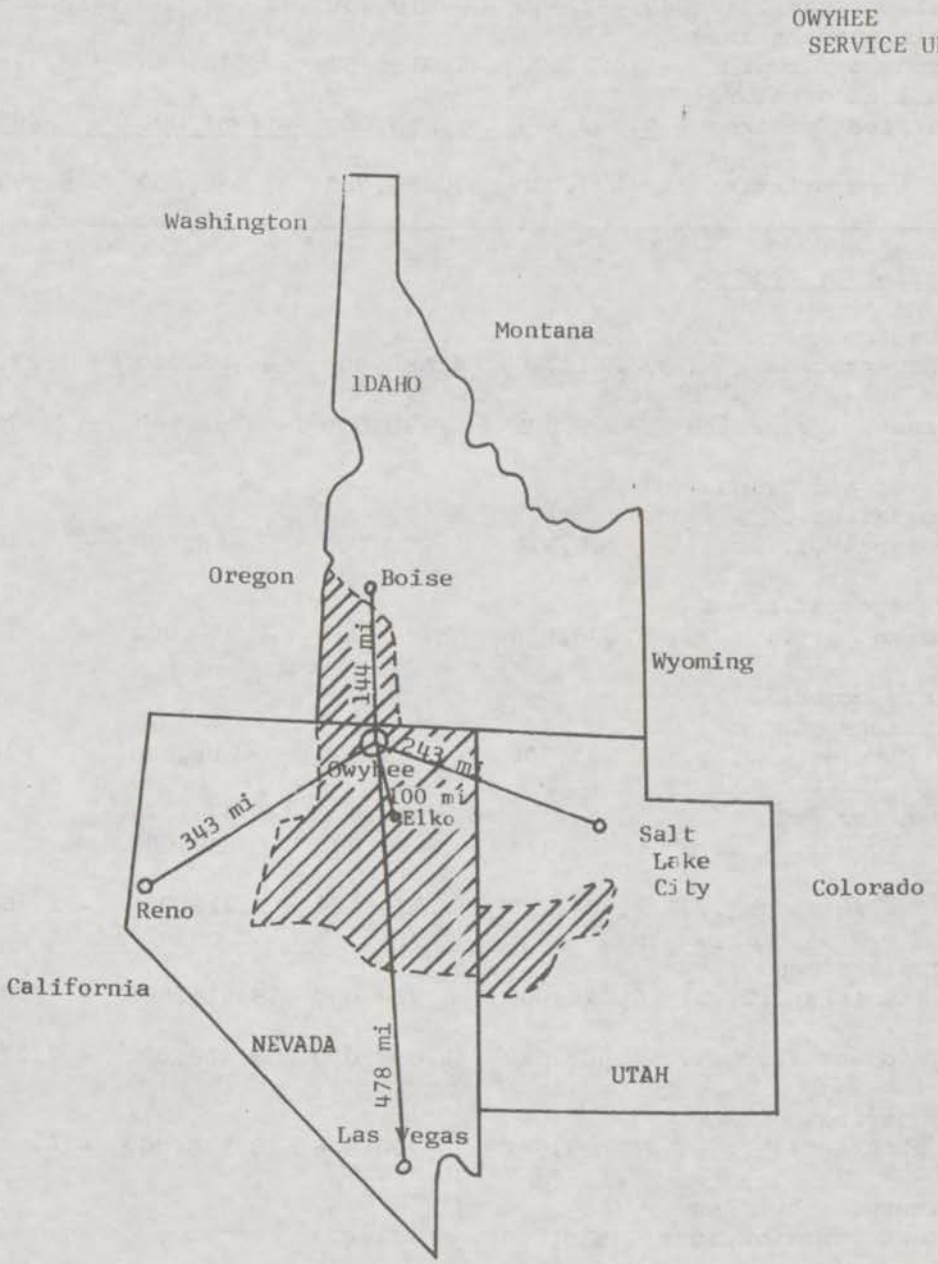
ITEMIZATION OF ESTIMATE

	Actual 1974	Estimate 1975	Estimate 1976	Increase (+) Decrease (-)
Program and Financing				
Total obligations	$49,488,241	$60,510,359	$42,347,000	$-18,163,359
Unobligated balance brought forward	-5,480,600	-5,919,359	-2,840,000	+ 3,079,359
Unobligated balance carried forward	+5,919,359	+2,840,000	+1,951,000	- 889,000
Appropriation	49,927,000	57,431,000	41,458,000	-15,973,000
Obligation by Objects				
11 Personnel compensation	3,881,716	4,565,000	4,785,000	+ 220,000
12 Personnel benefits	179,605	228,000	263,000	+ 35,000
21 Travel and transportation of persons	246,911	220,000	368,000	+ 148,000
22 Transportation of things	1,048,810	1,050,000	1,030,000	- 20,000
23 Rent, communications, and utilities	235,706	235,000	211,000	- 24,000
24 Printing and reproduction	26,114	30,000	30,000	...
25 Other services ...	7,434,709	7,079,304	5,318,000	- 1,761,304
26 Supplies and materials	6,328,909	6,300,000	5,916,000	- 384,000
31 Equipment	1,383,627	1,097,000	3,468,000	+ 2,371,000
32 Lands and structures	28,189,842	39,704,976	20,958,000	-18,746,976
41 Grants, subsidies and contributions	530,000	1,079	...	-1,079
42 Insurance claims and indemnities	2,292	...	...	...
Total obligations	49,488,241	60,510,359	42,347,000	-18,163,359

Owyhee Quarters

Owyhee, Nevada $466,000

Construction of 13 Units of Personnel Quarters



Thirteen units of personnel quarters are requested in 1976 for the purpose of providing housing for additional staff that will be required to operate the new Owyhee Health Facility.

Project Background

Design and construction funds have been appropriated and apportioned for a replacement health facility at Owyhee, Nevada, and construction is now underway. The facility consists of a 15-bed inpatient area and space for outpatient, field health, dental and diagnostic facilities for a total comprehensive health service program.

The Owyhee Service Unit encompasses three large counties in northeastern Nevada, plus parts of six other counties in Nevada, Idaho and Utah. Owyhee is a community located on the Duck Valley Reservation. The Service Unit boundaries include about 1,700 Paiute-Shoshone Indians widely scattered throughout this region.

Existing Units

There are 17 existing quarters units. One of these is sub-standard and will be demolished upon availability of additional units.

The distance from Owyhee to an established community (Elko, Nevada) is approximately 100 miles. Private housing for rent or purchase is not available other than at Elko. There are no other quarters available at Owyhee other than Federally constructed quarters. Private financing for housing is practically non-existent. Public transportation is not available. Therefore, for the purpose of recruitment and retention of the necessary health staff thirteen additional housing units are required.

Fifty-nine people will be employed by the new hospital. An analysis of the personnel quarters requirement follows:

Staff:	Total	59	
	Less Local Hire	30	
Total Quarters Needed		29	29
Quarters:	Existing	17	
	Less Substandard	1	
Adequate Housing Available			16
Additional Housing Needs			13

Equipment Requirements (Groups II and III)

Prior Year Construction Projects $2,438,000

Funds are requested for equipment requirements for construction projects funded prior to F.Y. 1976. Following is the amount by location and the fiscal year the project was funded.

Location	Fiscal Year Construction Funds Appropriated	Amount
Owyhee, Nevada - replacement hospital	1974	$350,000
Philadelphia, Mississippi - replacement hospital	1974	560,000
Claremore, Oklahoma - replacement hospital	1975	1,280,000
Tuba City, Arizona - 207 units of quarters	1975	248,000
TOTAL		2,438,000

SANITATION FACILITIES - 1976 Request $38,554,000

Provision of essential sanitation facilities for Indian communities and homes is vital in the prevention of environmentally related diseases and is basic to the improvement of health. During the past 15 years the Indian Health Service has worked with Indians and Alaska Natives in a cooperative effort to correct the gross insanitary conditions existing in their communities and homes. Substantial progress has been made which has contributed to a reduction in the infant mortality and the gastroenteritis death rates; however, the lack of safe available water supplies and waste disposal facilities continues to be a significant deficiency in the Indian environment. This condition is in large measure responsible for the high incidence of preventable disease that still prevails among Indians and Alaska Natives.

Public Law 86-121 enables the Indian Health Service to help alleviate the substandard environmental conditions which exists in Indian and Alaska Native homes and communities. This law authorizes construction of domestic water supplies, waste disposal facilities and other essential sanitation facilities for Indian homes, communities, and lands.

Projects include one or more of the following features:

Water - source development, treatment, storage facility, distribution systems

Waste - (liquid and solid) - collection system, sewage treatment, disposal facility

Household appurtenances - flush toilet or sanitary pit privy, kitchen sink, lavatory, all with connecting plumbing

Maintenance organizations - establishment and equipping of tribal operation and maintenance organizations

The Indian Health Service administers the program with the participation of Indian tribes, Alaska Native groups, and State and local health agencies. Participation by the Indians in project execution is stressed and tribes are equipped, trained and assisted to assume responsibility for continued operation and maintenance of completed community sanitation facilities. Education and training activities are also conducted for Indian householders to assure utilization, protection, and maintenance of household sanitation facilities. Completed facilities are transferred to the participating Indian householders, tribes or communities.

ACCOMPLISHMENTS

Since the inception of this program in 1960 through fiscal year 1974, 1,957 sanitation facilities projects have been undertaken. These include 728 regular projects to serve existing Indian homes and communities and 923 which were associated with Federal and Tribal housing programs. In addition 306 engineering investigations, emergency works, and other special projects were undertaken. With the completion of the above work and the projects to be initiated during fiscal year 1975, approximately 59,000 existing Indian and Alaska Native homes will have been provided new or improved sanitation facilities. In addition, facilities will have been constructed or provided for approximately 44,000 new, replacement or rehabilitated homes built under Federal or Tribal housing programs.

FISCAL YEAR 1975

The fiscal year 1975 appropriation of $40,521,000 for sanitation facilities construction included $33,046,000 for facilities to serve 8,000 new or renovated housing units built under Federal and Tribal housing programs and approximately 1,500 existing homes located within or adjacent to housing project sites. Also included in the fiscal year 1975 appropriation are: $7,000,000 for projects to construct facilities for approximately 3,525 existing homes at other locations and $475,000 for emergency works and special projects.

FISCAL YEAR 1976

Sanitation Facilities for New or Renovated Housing Constructed by Other Agencies and Existing Homes at the Same Locations

The request for sanitation facilities of $38,554,000 includes $38,003,000 to assist Federal (HUD and BIA) and Tribal housing programs during FY 1976 which will permit the Indian Health Service to participate in the provision of sanitation facilities for approximately 8,000 new or renovated housing units and approximately 1,500 existing homes within or adjacent to housing project sites. In accordance with a mutual agreement with the Department of Housing and Urban Development, and the Bureau of Indian Affairs, the Indian Health Service is responsible for funding the construction of all off-site facilities required to serve the housing units. The Indian Health Service is responsible for conducting site investigations, soil-tests, and providing construction inspection of sanitation facilities for all new housing built by housing authorities. The agency responsible for house construction provides interior fixtures and plumbing. Sanitation facilities located on the house lot and within the housing project site boundaries are funded by local housing authorities when the housing project comes under programs of the Department of Housing and Urban Development. In most instances these funds are contributed to the Indian Health Service for coordinated construction of the site facilities. Except for interior plumbing, the Indian Health Service provides all facilities for homes constructed or improved by the Bureau of Indian Affairs.

In the event that various Indian housing programs are unable to initiate the total number of anticipated housing unit starts during FY 1975 and 1976, it is planned to use the unrequired funds for projects to provide sanitation facilities for an equivalent number of existing Indian and Alaska Native homes or for needed capital improvements to existing Tribal community water or sewer systems.

Special Projects

The request further includes $551,000 to provide for: construction of sanitation facilities for Indian ceremonial areas and for tribal buildings used for community gatherings; investigation and planning funds for urgently needed construction projects for which additional technical information is necessary before a solution can be recommended; correction of emergency problems related to Indian sanitation facilities such as occur from severe drought conditions, floods, failure of well casings and pumping equipment; and other unforeseen conditions which may require provision of materials, supplies and equipment for completing the construction or maintenance and repair of sanitation facilities serving Indians and Alaska Native communities.

The following table reflects the number of homes included in projects for FY 1974 - 1976:

Number of Indian Homes Benefitted

	Fiscal Year Program		
	1974 Actual	1975 Estimate	1976 Estimate
Projects to assist Federal and Tribal Indian housing programs:			
(a) New and improved homes (HUD, BIA, Tribal and other)	4,098	8,000	8,000
(b) Existing homes served in conjunction with housing programs	870	1,500	1,500
Sub Total	4,968	9,500	9,500
Regular Projects for existing homes and communities:			
Water, waste or both and/or improved facilities or service	6,353	3,525	-
Total	11,321	13,025	9,500

1976 REQUEST SUMMARY

Projects to assist Federal and Tribal Housing Programs for Indians 8,000 new or improved housing units and 1,500 existing homes located within or adjacent to housing project sites.	$38,003,000
Special projects for engineering investigations, emergency works, Tribal buildings and ceremonial grounds, supplies and equipment and unforeseen conditions.	551,000
Total	38,554,000

Analysis by Activities

FY 1976 Estimate and July 1 - Sept. 30 Period
Indian Health Facilities

Activity	FY 1976 Estimate	Estimate July-Sept. 30, 1976
1. Hospitals:		
a. New and replacement	$2,190,000	$ 0
b. Modernization and repair	0	0
Total Hospitals	2,190,000	0
2. Outpatient care facilities	0	0
3. Community facilities	0	0
4. Sanitation facilities	38,554,000	11,084,000
5. Personnel quarters	714,000	0
Total Budget Authority	$41,458,000	$11,084,000

PROGRAM AND FINANCING - TRANSITION PERIOD

Identification Code 09-15-0391-0-1-554	July 1 - Sept. 30, 1976
Program by activities:	
1. Hospitals	
a. New and replacement	0
b. Modernization and repair	0
Total hospitals	0
2. Outpatient care facilities	0
3. Community facilities	0
4. Sanitation facilities	12,458,000
5. Personnel quarters	23,000
10 Total obligations	12,481,000
Financing:	
21 Unobligated balance available, start of year	-1,951,000
24 Unobligated balance available, end of year	554,000
40 Budget authority (appropriation)	11,084,000
Relation of obligations to outlays:	
71 Obligations incurred, net	12,481,000
72 Obligated balance, start of year	58,097,000
74 Obligated balance, end of year	-57,750,000
90 Outlays	12,828,000

Justification for Transition Period

Indian Health Facilities	$11,084,000
Sanitation Facilities	$11,084,000

An estimate of $11,084,000 is requested to fund programs under this activity for the period July 1, 1976 - September 30, 1976. That is about 29 percent of proposed funding at the FY 1976 budget estimate level of $38,554,000. This activity provides sanitation facilities, including domestic and community water facilities and sewage and waste disposal facilities for Indian homes, communities and lands. The estimate was computed on the basis of 25 percent of the funding level in 1976 with a 15 percent cost escalation factor included.

ADMINISTRATIVE PROVISIONS, HEALTH SERVICES ADMINISTRATION

SEC. 1001. Appropriations contained in this Act, available for salaries and expenses, shall be available for services as authorized by 5 U.S.C. 3109 but at rates not to exceed the per diem equivalent to the rate for GS-18.

SEC. 1002. Appropriations contained in this Act, available for salaries and expenses, shall be available for uniforms or allowances therefor as authorized by law (5 U.S.C. 5901-5902).

SEC. 1003. Appropriations contained in this Act, available for salaries and expenses, shall be available for expenses of attendance at meetings which are concerned with the functions or activities for which the appropriation is made or which will contribute to improved conduct, supervision, or management of those functions or activities. (Department of the Interior and Related Agencies Appropriation Act, 1975).

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education

Indian Education

HIGHLIGHT STATEMENT

OVERVIEW

In recognition of the special educational needs of American Indians and Alaskan Natives, in 1972 the Congress passed the Indian Education Act (P.L. 92-318, Title IV) creating new educational opportunities for Native American children and adults. The 1972 Act authorized the operation of three different programs designed to address the unmet needs of Indians from the pre-school to the graduate level. In keeping with a policy of Indian self-determination, parental and community participation in program development and implementation are required for all projects.

Through its service, demonstration and training activities under the Indian Education Act, the Office of Education strives to assist the educational system in strengthening its capacity to provide an equal education for Indian students. Federal assistance provided under the Act is supplementary to those funds intended to benefit Native Americans from other Office of Education programs such as Impact Aid (P.L. 874), services to educationally deprived children (Elementary and Secondary Education Act, Title I), and education for the handicapped, as well as education programs administered by other Federal agencies such as the Bureau of Indian Affairs. Indian Education funds are used to complement these services and to initiate benefits in areas of unmet need.

In pursuing its goal of an equal education for all American citizens, the Office of Education recommends $42,055,400 in FY 1976 for activities under the Indian Education Act. The 1976 request for Indian education is the same level of funding as provided in the 1975 appropriation.

To directly address the needs of the approximately 330,000 (more than 80 percent) Indian children attending public elementary and secondary schools, Part A of the Indian Education Act provides authorization to develop and carry out supplemental elementary and secondary school programs for Indian children. Financial assistance in the form of an entitlement determined by the number of Indian students enrolled in the school district, is provided to each eligible local educational agency, (LEA). In FY 1976, approximately 278,000 Indian students in about 1,500 school districts will benefit from Part A grants which will support bicultural/bilingual enrichment activities, including the development of cultural awareness curricula; teacher and teacher aide training in basic skills areas of reading and mathematics; and supportive services such as guidance and counseling and transportation. To continue the substantial progress made in these areas, $25,000,000 is requested for Part A in FY 1976 to build on past achievements by designing pilot programs to test the effectiveness of new learning materials and implementation models developed under this activity.

In addition to the amount allocated to the LEA's, ten percent of this amount is reserved for Indian schools on or near reservations which are not local educational agencies or have not been LEA's for more than three years. Under the non-LEA set-aside in FY 1976, an estimated 40 projects will be conducted in curriculum development, bilingual education, and cultural awareness.

In FY 1976, $12,000,000 is requested under Part B, Special Programs for Indian Children, to support two strategies. The first is a capacity building approach which will continue the development of exemplary programs which involve Indian parents and communities in the education process; curriculum development projects

utilizing Indian cultural and historical materials; programs to train Indian educational personnel; and community-based early childhood programs. A second strategy is to provide basic services such as counseling and tutoring which will address those needs that are not being met by other programs intended for Indian children. In FY 1976, approximately 135 grants will be awarded under Part B to benefit an estimated 90,000 Indian children.

Part C of the Indian Education Act is similar to Part B except that it is designed to meet the needs of adult Indians. In FY 1976, $3,000,000 is requested for Part C to continue the planning and implementation of adult education projects, particularly in the two critical areas of basic literacy and high school equivalency training. Projects to be funded under Part C include the development of models which combine basic education with social support skills, such as literacy through legal and consumer education; models that test service delivery mechanisms; English as a second language; and literacy equivalency testing. An estimated 10,000 Indian adults will receive benefits from about 35 grants under Part C in FY 1976. In the awarding of grants under both Parts B and C of the Act, priority is given to Indian tribes, organizations, and institutions.

To insure that the educational views of the Indian community are represented, Part D of the Indian Education Act provides for the establishment of the Office of Indian Education within the Office of Education to administer the project authorities of the Act under the direction of a Deputy Commissioner for Indian Education. The National Advisory Council on Indian Education was also established under Part D to provide policy direction and guidance. The law stipulates that the Council be comprised of 15 persons who are Indians or Alaska Natives and are appointed by the President from nominations submitted by Indian tribes and organizations. The 1976 budget recommends $2,055,400 for program administration and for the National Council.

Statistics and Special Problems

Toward its goal of providing equal education opportunities for American Indians, the Office of Education will focus on the following concerns:

-- The average educational level for all Indians is 8.4 years. Dropout rates for Indian students, grades 8-12, as shown in two separate studies of public, Federal, and private schools in the Southwest and Northwest, are about 48 percent and 39 percent respectively. Recent reports indicate that an increasing number of Indian students are completing school.

--The 1966 Coleman Report (Equality of Educational Opportunity) studied such achievement measures as reading comprehension, mathematics, verbal ability, non-verbal ability, and general information in a large national sample of sixth, ninth, and twelfth grades. The results established that the American Indian (like other minority groups studied) scores significantly lower at every grade level than does the average white pupil. Further, the degree of lag was greater at the twelfth grade than at the first, indicating that Indian children lose ground the longer they stay in school.

--Reading and mathematical development are serious problems. One study sample showed that 38 percent of second and fourth graders and 34 percent of sixth graders read below grade level. The proportion of Indian children with special needs in mathematics rises from 32 percent in the second grade to 41 percent in the fourth grade to 46 percent in the sixth grade.

--It is estimated that 25 percent of all Indian children come to school unable to speak English. This means that over 80,000 Indian children need bilingual education.

--Thirty-six percent of the parents of Indian children surveyed in a 1970 study did not continue beyond grade school. Participation of these parents in their children's education programs was minimal. In nearly 40 percent

of the cases surveyed, no teacher-parent interaction relative to pupil progress occurred and nearly 70 percent of the parents had no contact with teachers regarding their child's behavior. Since the enactment of the Indian Education Act in 1972, substantial progress has been made in involving Indian parents in their children's education. Parental participation will continue to be a primary objective in 1976.

These statistics take on particular importance in light of the fact that of the total Indian population which is estimated at 793,000, over half are 24 years or younger. The impact of these statistics is further illustrated by the low standard of living for all Indians. About 63 percent of Indian families report incomes not exceeding $6,000. Unemployment for Indians runs about 40 percent with approximately 19 percent in seasonal or temporary employment.

Priorities in Fiscal Year 1976

Office of Education priorities for FY 1976 to improve the quality of education for the Indian population include the development and implementation of a comprehensive service network to insure maximum effectiveness and efficiency in the delivery of education services to Native Americans. Specifically, this will involve reviewing services for Indians provided by 44 other OE programs and developing administrative strategies for the coordination of these programs. Further, funds provided under the Indian Education Act in FY 1976 will be targeted at meeting those needs not addressed by these other programs in order to insure that services are provided where gaps now exist in the educational process. This approach will enable the Indian community to maximize benefits to be derived from all programs directed towards their needs.

Another priority in FY 1976 will be to provide technical assistance to school districts and parent advisory committees. This assistance will be aimed at defining a matrix of needs and developing strategies to resolve those needs through special educational programs, increased coordination among Office of Education programs supporting Indian education, and disseminating information resources and products developed through Part B pilot and demonstration projects.

Another major objective in Indian Education for FY 1976 is to develop a service and dissemination network to implement the findings of pilot, planning and demonstration projects in the school systems. This will include identifying successful educational practices in Part A and B projects which can then be replicated as models for implementation under Part A.

In FY 1976, the Office of Indian Education will develop a policy paper on the Federal role in Indian education to be used in formulating a set of legislative and administrative recommendations for increasing the effectiveness of funds from the many Federal education programs intended to benefit Indian children. In order to define that role, several studies are currently being undertaken. These include: a position paper defining the treaty and legislative basis for Federal support to Indian education; analyses of the current structure, administration and data flow for the 44 Office of Education programs supporting Indian education; and a joint Bureau of Indian Affairs/Office of Education study of the Federal funds to Indian education, specifically, Johnson-O'Malley, Impact Aid, Title I of the Elementary and Secondary Education Act, and the Indian Education Act. These studies will be reviewed with Indian leaders and educators at a series of seminars currently being held on a regular basis with the Office of Indian Education.

Appropriation, 1974	$40,000,000	
Comparative transfer from Office of Education "Salaries and Expenses", excluding amount withheld pursuant to P.L. 93-192 ($93,000)	+ 1,759,000	
Total amount available, 1974		41,759,000
Appropriation, 1975	42,000,000	
Proposed transfer from "Library Resources" for the October 1974 Federal pay raise	+ 34,300	
Total amount available, 1975		42,034,300

SUMMARY OF INCREASES AND DECREASES, 1976

Payments to Local Educational Agencies for Indian Education	
Net change	---
Special Projects	
Net change	---
Program Administration	
To provide for mandatory increases	+ 146,600
Program Decreases	- 125,500
Net change	+ 21,100
Net change, 1976	+ 21,100
Budget estimate, 1976	42,055,400

Analysis by Activities

Activity	Amount Available 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
Payments to Local Educational Agencies and Non-LEAs for Indian Education	$25,000,000	$25,000,000	$25,000,000	---
Special Projects:				
(a) Special projects for Indian children	12,000,000	12,000,000	12,000,000	---
(b) Special projects for Indian adults	3,000,000	3,000,000	3,000,000	---
Program Administration	1,264,700	2,034,300	2,055,400	+ 21,100
Sub-total - obligations	41,264,700	42,034,300	42,055,400	+ 21,100
Unobligated balance lapsing	494,300	---	---	---
Budget authority	41,759,000 1/	42,034,300 2/	42,055,400	+ 21,100

1/ Reflects a 1974 comparative transfer, -$1,759,000 from "Salaries and Expenses, Office of Education."

2/ Includes $34,300 to be transferred from "Library Resources" for the October 1974 Federal pay raise.

1. PAYMENTS TO LOCAL EDUCATIONAL AGENCIES FOR INDIAN EDUCATION (Part A)

	Amount Available 1974	Amount Available 1975	Estimate 1976
Payments to Local Educational Agencies	$23,809,524	$22,727,273 1/	$22,727,273 1/
Payments to Non-local Educational Agencies	1,190,476	2,272,727	2,272,727

Narrative

The 1976 budget requests $25,000,000 for this activity, the same level of funding as the 1975 appropriation.

Part A of the Indian Education Act is authorized to grant financial assistance to local educational agencies (LEA's) for elementary and secondary programs to meet the special educational needs of Indian children. Grants are made to applicant local educational agencies on an entitlement basis according to the number of Indian students enrolled multiplied by the state average per pupil expenditure. As a result of increased parental participation through the parent committees -- a requirement for Part A funding -- the number of eligible local school districts has grown from 2,621 in FY 1974 to an estimated 3,200 in FY 1976. As more LEA's have become eligible for Part A funding, the number of grants awarded has also increased from 854 in FY 1974 to an estimated 1,500 in FY 1976.

The majority of Indian children attend schools in districts having a low tax base, low concentration of services, a high degree of isolation, and a high cost for ancillary services such as transportation. Consequently, these districts are often unable to provide special programs for educational or cultural enrichment without additional funding.

In addition to the amount of the appropriation allocated for local educational agencies, a part of this amount is reserved for grants to Indian schools on or near reservations which are not local educational agencies or have not been LEA's for more than three years. This non-LEA set-aside was increased from 5% to 10% by the Education Amendments of 1974, P.L. 93-380. In FY 1974, 23 grants were awarded under the non-LEA portion of Part A primarily for service projects in cultural awareness, bilingual education, curriculum development, and remedial education. An estimated 40 grants will be made in FY 1976.

1/ Decrease in total amount available to local educational agencies is the result of an increase from five percent to ten percent in the set-aside for non-local education agencies mandated under the Education Amendments of 1974.

Plan of Work

In order to provide a more effective service program for Indian children, the requested appropriation for Part A in FY 1976 will be used for the following purposes:

1. To insure that program funds are focused on addressing the special educational needs of Indian children as specified in the legislation, a technical review of applications for both LEA's and non-LEA's will be conducted to insure compliance with the provisions of the law. In addition, as projects are funded, a monitoring system for insuring adequate management progress will be implemented. During the period of project performance, site visits will be made to selected project sites and technical assistance will be offered to projects requesting it. A series of conferences with grantees will also be held to insure the maximum dissemination of information relating to program characteristics and conditions.

2. To insure full participation of the Indian community in the planning, implementation, and evaluation of Part A LEA projects, a management reporting system will be instituted in which Indian parent committees will review and report on the management of Part A LEA grants. This objective will also be supported by the development of a "Part A Parent Committee Information Package" which will provide detailed information on the planning, development, and operation of programs under Part A.

3. To identify successful or promising educational practices, an extensive review will be conducted for both LEA's and non-LEA's of project cost and performance data in accordance with acceptable educational criteria.

4. To develop an information base for identifying Indian educational needs as influenced by the total educational environment, an analysis will be made of needs assessment data as they appear on project applications from both LEA's and non-LEA's, and data resulting from site visits, conferences and project monitoring efforts will be collected and reviewed.

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PART A - LEA's

	FY 1973 Actual	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate
No. Eligible Local School Districts 1/	2,565	2,621	3,088	3,200
No. Applications Received or Anticipated	553	1,098	1,500	1,750
No. Grants Awarded	435	854	1,200	1,500
Percentage of Eligible Districts Funded	17%	33%	39%	55%
No. States in Which Awards Are Made	31	36	38	40
No. Eligible Indian Students 2/	227,589	266,676	332,264	345,000
No. Indian Students Served or Anticipated	135,000	214,350	267,000	278,000
Percentage of Eligible Indian Students Served	59%	80%	80%	81%
Full Entitlement	$196,177,204	$232,240,000	$310,999,550	$387,090,000
Total Funds Obligated	$ 10,950,000	$ 23,809,524	$ 22,727,273 3/	$ 22,727,273 3/
Share of Entitlement	6%	10%	7.3%	5.9%
Average Cost of Awards	$ 25,172	$ 27,881	$ 18,939	$ 15,152
Average Grant Expenditure Per Child	$ 81	$ 111	$ 85	$ 82

1/Districts that enrolled no fewer than ten Indian pupils; or, if fewer than ten, the actual Indian enrollment constituted one-half or more of the districts' total enrollment.

2/Based on an annual survey by the Office of Indian Education of Indian enrollment in public school districts for purpose of allocating funds to districts under Part A. The figure excludes Indian students attending BIA and private schools.

3/Decrease in total amount available to local educational agencies is the result of an increase from five percent to ten percent in the set aside for non-local education agencies mandated under the Education Amendments of 1974.

PART A - Non-LEA's

	FY 1974	FY 1975	FY 1976
No. Applications received or Expected	35	50	55
No. of Grants Awarded or anticipated	23	30	40
Average Cost of Award	$51,760	$75,758	$56,818
Funds Obligated	$ 1,190,476	$2,272,727	$2,272,727
No. States in which Award is made	12	15	20
Average duration of Projects	1	1	1

DISTRIBUTION OF 1976 BUDGET BY REGION

Part A (LEA)

Region	1974	1975	1976
I Boston	$ 55,632	$ 53,182	$ 53,182
II New York	656,978	636,364	636,364
III Philadelphia	82,244	79,545	79,545
IV Atlanta	1,231,653	1,136,364	1,136,364
V Chicago	3,162,433	2,954,545	2,954,545
VI Dallas	6,548,991	6,363,636	6,363,636
VII Kansas City	324,168	318,182	318,182
VIII Denver	2,521,421	2,549,091	2,549,091
IX San Francisco	3,689,382	3,409,091	3,409,091
X Seattle	5,536,622	5,227,273	5,227,273
	$ 23,809,524	$ 22,727,273	$ 22,727,273

DISTRIBUTION OF 1976 BUDGET BY REGION

Part A (Non-LEA)

Region		1974	1975	1976
I	Boston	$ ---	$ ---	$ ---
II	New York	---	---	---
III	Philadelphia	---	---	---
IV	Atlanta	90,000	172,727	172,727
V	Chicago	67,058	127,272	127,272
VI	Dallas	120,000	227,272	227,272
VII	Kansas City	---	---	---
VIII	Denver	558,368	1,077,275	1,077,275
XI	San Francisco	290,050	545,454	545,454
X	Seattle	65,000	122,727	122,727
		$ 1,190,476	$ 2,272,727	$ 2,272,727

ITEMIZATION OF ESTIMATE
Payments to Local Education Agencies for Indian Education

Obligations by Object	Amount Available 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
41 Grants, subsidies and contributions	$25,000,000	$25,000,000	$25,000,000	---
	$25,000,000	$25,000,000	$25,000,000	---

2. SPECIAL PROJECTS
(Parts B and C)

	Amount Available 1974	Amount Available 1975	Estimate 1976
a. Special projects for Indian children	$12,000,000	$12,000,000	$12,000,000
b. Special projects for Indian adults	3,000,000	3,000,000	3,000,000

Narrative

(a) Special projects for Indian children (Part B)--The 1976 estimate of $12,000,000 provides the same level of funding as the 1975 appropriation.

Part B of the Indian Education Act authorizes grants to support: planning, pilot, and demonstration projects; educational services not otherwise available; exemplary educational programs; preservice and inservice training programs for educational personnel; and the dissemination of information and materials. Grants are made, upon receipt of timely filed applications and approval by the Commissioner of Education, to Indian tribes, organizations and institutions, State and local educational agencies, and Federally supported elementary and secondary schools for Indian children.

Plan of Work

In order to provide both capacity building programs and services in areas of unmet need, the requested appropriation under Part B for FY 1976 will be used for the following purposes:

1. To provide the Indian educational personnel necessary to meet the educational needs of Indian children, $1,250,000 will be used to train teachers, administrtors, and ancillary personnel.

2. To meet important Indian educational needs, particularly in the areas of public school drop-outs and Indian-controlled education, $1,250,000 will be used to support educational programs in "alternative schools" for Indian students. These schools are non-public Indian schools which are not on or near reservations and therefore, are not eligible for funding under the Part A, 10 percent set-aside for non-local educational agencies.

3. To improve the educational opportunities of Indian children through the utilization of materials and programs suited to their individual life-styles and identities, $1,000,000 will be used to fund culturally relevant curriculum development projects. Special emphasis will be placed on serving those children separated from a day-to-day exposure to their culture and heritage.

4. To improve the readiness of Indian children for school and to help meet the Indian Education Act goals of parent and community involvement in the educational process, $4,000,000 will be used to

support Parent/Community-based early childhood programs for Indian children through age five. Programs may operate in the home, community, and/or school.

5. To meet locally determined needs which are not being met in sufficient quantity and/or quality by the current programs in which Indian children participate, $4,000,000 will be used to support basic services such as counseling, tutoring, remedial programs, recreational activities, and culturally based programs.

6. To continue and expand successful efforts involving Indian parents and communities in the educational programs serving Indian children, $500,000 will be used to fund projects aimed at assisting local communities in the training of Part A parent committees.

The work plan includes support for some projects for more than one year on a case by case basis. Where assistance is provided for multiple year projects, grant awards will be made for grant periods of a single year's duration with continuation awards of second and third years subject to satisfactory performance and availability of funds in future fiscal years. Such applicants will be selected based on potential for success and evidence of past effectiveness in similar efforts.

SPECIAL PROJECTS FOR INDIAN CHILDREN
PART B

	FY 1974	FY 1975	FY 1976
No. Applications Received or Expected	438	445	450
No. Projects Funded	136	135	135
Average Cost of Award	$88,235	$88,889	$88,889
Funds Obligated	$12,000,000	$12,000,000	$12,000,000
No. States in which Award is made	28	28	28
Average Duration of Projects	1	1	1
Estimated Number of Children Served	80,000	90,000	90,000

FY 1974 PART B PROJECTS BY STATE

State	Number	Total Amount
Alaska	2	$ 253,000
Arizona	16	1,810,640
California	16	1,317,523
Colorado	3	327,000
Florida	2	111,000
Idaho	1	76,600
Illinois	1	60,000
Iowa	1	100,000
Maine	1	75,209
Massachusetts	2	185,000
Michigan	3	191,152
Minnesota	9	563,281
Mississippi	1	50,518
Montana	8	951,511
Nebraska	1	67,404
Nevada	3	180,063
New Mexico	9	897,205
New York	5	444,535
North Carolina	2	277,164
North Dakota	7	670,837
Oklahoma	12	963,620
Oregon	4	341,725
South Dakota	8	502,711
Texas	1	114,000
Washington	9	734,302
Washington, D. C.	1	95,000
Wisconsin	7	586,000
Wyoming	1	53,000
TOTAL	136	$12,000,000

DISTRIBUTION OF 1976 BUDGET BY REGION

Part B

Region		1974	1975	1976
I	Boston	$ 260,209	$ 250,000	$ 250,000
II	New York	444,535	450,000	450,000
III	Philadelphia	95,000	100,000	100,000
IV	Atlanta	438,682	425,000	425,000
V	Chicago	1,400,433	1,400,000	1,400,000
VI	Dallas	1,974,825	2,000,000	2,000,000
VII	Kansas City	165,404	150,000	150,000
VIII	Denver	2,505,059	2,500,000	2,500,000
IX	San Francisco	3,310,226	3,300,000	3,300,000
X	Seattle	1,405,627	1,425,000	1,425,000
		$ 12,000,000	$ 12,000,000	$ 12,000,000

	Amount Available 1974	Amount Available 1975	Estimate 1976
(b) Special Projects for Indian Adults (Part C)	$3,000,000	$3,000,000	$3,000,000

Narrative

(b) Special projects for Indian adults (Part C) -- The 1976 estimate of $3,000,000 provides the same level of funding as the 1975 appropriation.

Part C of the Indian Education Act supports projects designed to improve the employment and educational opportunities for adult Indians. Grants are made, upon receipt of timely filed applications and approval by the Commissioner of Education, to Indian tribes, organizations, and institutions, and State and local educational agencies.

Plan of Work

In order to improve the access of adult Indians to the economy and social structure, the requested appropriation for fiscal year 1976 will be used for the following purposes:

1. To improve the educational opportunities for Indian adults, $1,300,000 will be used to establish and operate Indian adult learning centers which will provide basic education training and programs to give the Indian adult the opportunity to qualify for a high school equivalency certificate.

2. To develop innovative and effective techniques for achieving the literacy and high school equivalency goals, $700,000 will be devoted to projects that stress curriculum development, teaching techniques, literacy equivalency testing models, consumer education, bilingual education, cultural education, and other learning activities meeting individual adult Indian needs. Such projects could include research and development and evaluation projects.

3. To assist in the development and implementation of coordinated efforts to serve Indian adults, $1,000,000 will be spent for projects that develop adult Indian educational services in Adult Basic Education and General Education Development in concert with other health, manpower and social programs designed to meet the comprehensive needs of citizens in a community.

The work plan includes support for some projects for more than one year on a case by case basis. Where assistance is provided for multiple year projects, grant awards will be made for grant periods of a single year's duration with continuation awards second and third years subject to satisfactory performance and availability of funds in future fiscal years. Such applicants will be selected based on potential for success and evidence of past effectiveness in similar efforts.

SPECIAL PROJECTS FOR INDIANS
PART C

	FY 1974	FY 1975	FY 1976
No. Applications Received or Expected	110	140	150
No. Projects Funded	42	35	35
Average Cost of Award	$71,429	$ 85,714	$ 85,714
Funds Obligated	$3,000,000	$3,000,000	$3,000,000
No. States in which Award is made	19	21	21
Average Duration of Projects	1	1	1
Estimated Number of Adults Served	8,000	9,000	10,000

FY 1974 PART C PROJECTS BY STATE

States	Number	Total Amount
Alaska	2	$ 191,434
Arizona	6	616,747
California	3	101,407
Idaho	1	70,000
Louisiana	2	66,924
Michigan	3	129,720
Minnesota	1	85,000
Montana	1	180,000
Nevada	1	19,711
New Mexico	5	388,768
North Dakota	1	45,000
Oklahoma	2	102,730
Oregon	1	91,166
South Dakota	1	64,000
Utah	2	185,000
Washington	5	319,393
Washington, D. C.	1	100,000
Wisconsin	2	130,000
Wyoming	2	113,000
TOTAL	42	$3,000,000

DISTRIBUTION OF 1976 BUDGET BY REGION

Part C

Region		1974	1975	1976
I	Boston	$---	$---	$---
II	New York	---	---	---
III	Philadelphia	100,000	100,000	100,000
IV	Atlanta	---	---	---
V	Chicago	344,720	350,000	350,000
VI	Dallas	558,422	550,000	550,000
VII	Kansas City	---	---	---
VIII	Denver	587,000	600,000	600,000
IX	San Francisco	737,865	725,000	725,000
X	Seattle	671,993	675,000	675,000
		$ 3,000,000	$ 3,000,000	$ 3,000,000

ITEMIZATION OF ESTIMATES

Special Projects

Obligations by Object	Amount Available 1974	Amount Available 1975	Estimate 1976	Increase(+) Decrease(-)
41 Grants, subsidies and contributions	$15,000,000	$15,000,000	$15,000,000	---
Net obligations	$15,000,000	$15,000,000	$15,000,000	---

FUNDING PATTERN FOR PARTS A, B & C

	1974			1975 Estimate			1976 Estimate		
	Number Applications Received	Number Grants Awarded	Total Funds Awarded	Number Applications Received	Number Grants Awarded	Total Funds Awarded	Number Applications Received	Number Grants Awarded	Total Funds Awarded
LEA's	1,098	854	$23,809,524	1,500	1,200	$22,727,273	1,750	1,500	$22,727,273
Non LEA's	35	23	1,190,476	50	30	2,272,727	55	40	2,272,727
Part B	438	136	12,000,000	445	135	12,000,000	450	135	12,000,000
Part C	110	42	3,000,000	140	35	3,000,000	150	35	3,000,000
TOTALS	1,681	1,055	$40,000,000	2,135	1,400	$40,000,000	2,405	1,710	$40,000,000

3. Program Administration

	Actual 1974	Amount Available 1975	Estimate 1976	Increase (+) Decrease (-)
Program Administration	$1,264,700	$2,034,300	$2,055,400	+21,100

The 1976 estimate of 54 positions and $2,055,400 provides an increase of $21,100 over 1975.

Need for increase

The requested increase consists of:

Mandatory	
Increases:	
Annualization of new positions funded for part of 1975	$132,100
Extra paid day in 1976	4,200
Cost of 1975 pay raise in 1976	18,800
Increase due to inclusion of Standard Level Usage Charge (SLUC) system	41,100
Total mandatory increase	196,200
Program	
Increases:	
Increased amount for travel	1,000
Total program increase	1,000
Total increase	197,200
Mandatory	
Decreases:	
Decrease in government services associated with start-up costs	-21,100
Decrease in working capital fund	-11,900
Decrease in automatic data processing charges	- 9,400
Decrease in agreements with other federal agencies	- 7,200
Total mandatory decrease	-49,600
Program	
Decreases:	
Decrease in support for temporary personnel	- 6,400
Decrease in planning and evaluation activities	-60,000
Decrease in other contractual services	-60,100
Total program decrease	-126,500
Net increase	21,100

Part D of the Indian Education Act refers to the General Education Provisions Act (Sections 400 (c), 411, and D) as authority for funds to operate the Office of Indian Education and the National Advisory Council on Indian Education. Funds appropriated for this activity support the salaries, travel, and other administrative expenses for the Office and the Council, as well as planning and evaluation studies necessary for program support.

Plan of Work

In order to improve the access of the Indian child to the existing school structure, the Office of Indian Education will perform the following activities:

1. Staff the Office of Indian Education at a level of 54 fulltime positions, which includes 4 fulltime positions for the National Advisory Council on Indian Education.

2. Develop a policy statement on the Federal role in Indian education. Specifically, this will include reviewing project data to determine the degree of overlap in services to Indians by the other 44 Office of Education programs, as well as developing and recommending administrative and legislative strategies for coordination and/or control of these programs to increase their effectiveness in serving Indian students.

3. Develop a comprehensive plan which may include coordination with Bureau of Indian Affairs, amendments to existing legislation and/or new legislation.

4. Develop a service and dissemination network to implement the findings of pilot, planning and demonstration projects in school systems. Specifically, this will include identifying successful educational practices in Parts A and B projects which when replicated can serve as models for projects that will improve the educational levels of Indian children whose educational needs have yet to be met.

5. Increase the effectiveness of monitoring and technical assistance provided to grantees under all parts of the Indian Education Act. Specifically, this will include establishing mechanisms and procedures to coordinate data collection; conducting a study to identify problems faced by Parent Advisory Committees and school districts in providing educational services for Indian children; developing an overall measure of project performance; and designating staff to provide specific technical assistance to projects identified as having major difficulties.

6. Fund the 15 member National Advisory Council on Indian Education. ($230,000)

ITEMIZATION OF ESTIMATE
Program Administration

Obligations by Object	Actual 1974	Amount Available 1975	Estimate 1976	Increase (+) Decrease (-)
11 Personnel compensation....	$ 186,900	$ 846,400	$ 984,200	+137,800
12 Personnel benefits.....	15,700	76,100	87,000	+ 10,900
21 Travel and transportation of persons.....	37,200	59,000	60,000	+ 1,000
22 Transportation of things.....	---	2,500	2,500	---
23 Rent, communications, and utilities...	---	77,200	97,200	+ 20,000
24 Printing and reproduction....	200	20,000	20,000	---
25 Other services....	1,018,200	944,100	795,500	-148,600
26 Supplies and materials.....	300	9,000	9,000	---
31 Equipment.....	6,200	---	---	---
Net obligations.	$1,264,700	$2,034,300	$2,055,400	+ 21,100

ITEMIZATION OF ESTIMATE
INDIAN EDUCATION

Obligations by Object	Actual 1974	Amount Available 1975	Estimate 1976	Increase (+) Decrease (-)
11 Personnel compensation...$	186,900	846,400	984,200	+137,800
12 Personnel benefits.....	15,700	76,100	87,000	+ 10,900
21 Travel and transportation of persons.....	37,200	59,000	60,000	+ 1,000
22 Transportation of things.....	----	2,500	2,500	---
23 Rent, communications, and utilities.....	---	77,200	97,200	+ 20,000
24 Printing and reproduction...	200	20,000	20,000	---
25 Other services...	1,018,200	944,100	795,500	-148,600
26 Supplies and materials.....	300	9,000	9,000	---
31 Equipment.....	6,200	---	---	---
41 Grants, subsidies, and contributions..	40,000,000	40,000,000	40,000,000	---
Net Obligations	$41,264,700	$42,034,300	$42,055,400	+ 21,100

Summary of Positions and Average Employment

Positions

Activity	1974	1975	1976
Payments to Local Educational Agencies for Indian Education	---	---	---
Special Projects:			
(a) Indian children	---	---	---
(b) Indian adults	---	---	---
Total Special Projects	---	---	---
Program Administration	50	54	54
Total	50	54	54

Average Employment

Payments to Local Educational Agencies for Indian Education	---	---	---
Special Projects:			
(a) Indian children	---	---	---
(b) Indian adults	---	---	---
Total Special Projects	---	---	---
Program Administration	12	46	53
Total	12	46	53

Analysis by Activities

FY 1976 Estimate and July 1 - Sept. 30 Period

Indian Education

Activity	FY 1976 Estimate	Estimate July - Sept. 30, 1976
1. Payments to local educational agencies for the education of Indian children	$25,000,000	
2. Special Projects:		
a. Special programs and projects to improve educational opportunities for Indian children	$12,000,000	
b. Special programs relating to adult education for Indians	$ 3,000,000	
3. Program administration	$ 2,055,400	$515,900
TOTAL	$42,055,400	$515,900

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education

INDIAN EDUCATION

For carrying out, to the extent not otherwise provided, Part A ($25,000,000), Part B ($12,000,000), and Part C ($3,000,000) of the Indian Education Act, and [$2,000,000 for] the General Provisions Act, [$42,000,000] *$42,055,400.*

For "Indian Education" for the period July 1, 1976 through September 30, 1976 $515,900.

Program and Financing - Transition Period
(in thousands of dollars)

Identification Code:
09-40-0204-0-1-501

		July 1 - Sept. 30, 1976
	Program by Activities:	
1.	Payments to local educational agencies for the education of Indian children.	---
2.	Special Projects:	
	a. Special programs and projects to improve educational opportunities for Indian children.	---
	b. Special programs relating to adult education for Indians.	---
3.	Program administration	516
10	Total Obligations	516
	Financing:	
40	budget authority (appropriation)	516
	Relation of obligations to outlays:	
71	Obligations incurred net	516
72	Obligated balance, start of period	48,041
74	Obligated balance, end of period	38,464
90	Outlays	10,093

Justification for Transition Period

Indian Education $515,900

1. Payments to local educational agencies for the education of Indian children . . . . . ---

No funds are requested in this activity for the transition period July 1, 1976-September 30, 1976. Obligation of funds for all programs under the Indian Education Act are made in the fourth quarter of the fiscal year for expenditure in the following school year. For example, the FY 1975 Indian appropriation will fund grants for the school year 1975-1976 and the FY 1976 appropriation will fund grants covering the 1976-1977 school year. Therefore, program operations during the transition period are provided for by the FY 1976 appropriation and no new funds are required for this period.

2. Special Projects:

a. Special programs and projects to improve educational opportunities for Indian children . . . . . ---

No funds are requested in this activity for the transition period July 1, 1976-September 30, 1976. Obligation of funds for all programs under the Indian Education Act are made in the fourth quarter of the fiscal year for expenditure in the following school year. For example, the FY 1975 Indian appropriation will fund grants for the school year 1975-1976 and the FY 1976 appropriation will fund grants covering the 1976-1977 school year. Therefore, program operations during the transition period are provided for by the FY 1976 appropriation and no new funds are required for this period.

b. Special programs relating to adult education for Indians . . . . . ---

No funds are requested in this activity for the transition period July 1, 1976-September 30, 1976. Obligation of funds for all programs under the Indian Education Act are made in the fourth quarter of the fiscal year for expenditure in the following school year. For example, the FY 1975 Indian appropriation will fund grants for the school year 1975-1976 and the FY 1976 appropriation will fund grants covering the 1976-1977 school year. Therefore, program operations during the transition period are provided for by the FY 1976 appropriation and no new funds are required for this period.

3. Program Administration $515,900

An estimated $515,900 is requested for the period July 1-September 30, 1976 to fund salaries, travel, and other administrative expenses of the Office of Indian Education and the National Advisory Council on Indian Education. The requested amount is 25 percent of the proposed funding for this activity as stated in the 1976 budget estimates. Funds for planning and evaluation studies in areas of concern to Indian education are included in this amount. These studies will include the development of a policy statement on the Federal role in Indian education, the development of a service and dissemination network, and the development of a monitoring and technical assistance program for grantees funded under the Indian Education Act.

OBJECT CLASSIFICATION (in thousands of dollars)

		July 1-Sept 30, 1976	
	Personnel compensation:		
11.1	Permanent positions	231	
11.3	Positions other than permanent	15	
11.5	Other personnel compensation	2	
11.8	Special personal services payments	---	
	Total personnel compensation	248	
	Personnel benefits:		
12.1	Civilian	22	
13.0	Benefits for former personnel	---	
21.0	Travel and transportation of persons	15	
22.0	Transportation of things	1	
23.0	Rent, communications, and utilities	24	
24.0	Printing and reproduction	5	
25.0	Other services	199	
26.0	Supplies and materials	2	
31.0	Equipment	---	
32.0	Lands and structures	---	
33.0	Investments and loans	---	
41.0	Grants, subsidies, and contributions	---	
42.0	Insurance claims and indemnities	---	
43.0	Interest and dividends	---	
44.0	Refunds	---	
99.0	Total obligations	516	

INDIAN CLAIMS COMMISSION

JUSTIFICATION OF 1976 BUDGET

Requirements for FY 1976. The Indian Claims Commission is requesting an appropriation of one million four hundred and twenty thousand dollars, of which $1,226 thousand is for personnel costs and $194 thousand is for other purposes.

Establishment and Adjudicatory Duties of the Commission. The Indian Claims Commission is an independent quasi-judicial agency, created by the Indian Claims Commission Act of August 13, 1946, (60 Stat. 1049), codified as Section 70 of Title 25, United States Code. The Commission consists of five members appointed by the President by and with the advice and consent of the Senate. It is responsible for the hearing and adjudication of claims existing up to and including August 13, 1946, as defined under Section 2 of the Act.

Status of Work. A total of 613 claims of Indian Tribes, bands or other identifiable groups of American Indians have been docketed. On December 31, 1974, 436 dockets had been finally disposed of, and 177 dockets were pending.

OBJECT CLASSIFICATION STATEMENT

11. Personnel Compensation. It is estimated that $1,127 thousand will be required for personnel compensation. The increase of $57 thousand over FY 1975 will cover the full-year cost of the October 1974 general salary increase and provide for essential individual increases.

12. Personnel Benefits. It is estimated that $99 thousand, an increase of $9 thousand, will be required to cover the Government's contribution, in accordance with existing legislation, to employees' group life insurance, group health benefits, retirement, and FICA taxes.

21. Travel and Transportation of Persons. The Commission may require up to $14 thousand for travel, principally for the conduct of hearings in the field. This amount is unchanged from FY 1975.

23. Rent, Communications, and Utilities. It is anticipated that $113 thousand, an increase of $21 thousand, will be required for these expenditures. Rent has been increased by $18 thousand; and an estimated additional $3 thousand is needed for increased costs of telephone service including FTS, telegraph service and penalty mail.

24. Printing and Reproduction. It is estimated that $1 thousand will again be required for this object to cover the cost of obtaining stationery and other material printed or bound outside the Commission.

25. Other Services. It is estimated that $53 thousand, an increase of $8 thousand, will be required for this object to cover such costs as court reporting services; xerox rental; maintenance of office machines; and other administrative services.

26. Supplies and Materials. It is anticipated that $12 thousand will be required to cover the cost of miscellaneous office supplies. This represents an increase of $1 thousand.

31. Equipment. It is estimated that $1 thousand will be needed for replacement of obsolescent office machines. This amount is unchanged from FY 1975.

SALARIES AND EXPENSES

Appropriation FY 1974	$1,164,000
Appropriation FY 1975	1,324,000
Budget Estimate FY 1976	1,420,000

REQUIREMENTS FOR FISCAL YEAR 1976

The estimate for funds allowed by the Office of Management and Budget to operate the Indian Claims Commission in fiscal year 1976 is $1,420,000.

SUMMARY OF INCREASES, 1976
(in thousands of dollars)

Personnel Compensation	+57
Personnel Benefits	+9
Travel	0
Rent, Communications and Utilities	+21
Printing and Reproduction	0
Other Services	+8
Supplies and Materials	+1
Equipment	0
	+96

PERSONNEL COMPENSATION
(dollar amounts in thousands)

	1974 Actual	1975 Estimate	1976 Estimate	Change in 1976 from 1975
1. Number of permanent positions	42	42	42	0
2. Number of other positions	2	2	2	0
3. Salary cost of permanent positions	$1,056	$1,134	$1,198	+$64
4. Salary cost of other positions	$23	$26	$28	+$2
Total personnel services	$1,079	$1,160	$1,226	+$66

PERSONNEL SUMMARY

	1974 Actual	1975 Estimate	1976 Estimate
Total number of permanent positions	42	42	42
Full-time equivalent of other positions	2	2	2
Average paid employment	44	44	44
Average GS-grade	11.8	12.4	12.4
Average GS-salary	$21,697	$23,159	$23,497

OBJECT CLASSIFICATION
(in thousands of dollars)

		1974 Actual	1975 Estimate	1976 Estimate	Change in 1976 from 1975
11.	Personnel Compensation	$ 998	$1,070	$1,127	+57
12.	Personnel Benefits	81	90	99	+9
21.	Travel	7	14	14	0
23.	Rent, Comm. and Utilities	14	92	113	+21
24.	Printing and Reproduction	1	1	1	0
25.	Other Services	51	45	53	+8
26.	Supplies	9	11	12	+1
31.	Equipment	2	1	1	0
	Total Obligations	$1,163	$1,324	$1,420	+$96

ANALYSIS BY ACTIVITIES
(in thousands of dollars)

Activities	Amount Available 1974	Amount Available 1975	Estimate 1976	Change in 1976 from 1975
Hearing and adjudication of claims	$1,163	$1,324	$1,420	+96
Unobligated balance no longer available	1	-	-	-
Total	$1,164	$1,324	$1,420	+96

Analysis by Activities

FY 1976 Estimate and July 1-Sept. 30 Period

Salaries and Expenses

Activity	FY 1976 Estimate	Estimate July - Sept. 30, 1976
Salaries and Expenses	$1,420,000	$355,000

NOTE: The amount requested for the transition period is 25% of the FY 1976 estimate. No changes in positions or programs are proposed for the transition period.

SALARIES AND EXPENSES

For expenses necessary to carry out the purposes of the Act of August 13, 1946 (25 U.S.C. 70), as amended (86 Stat. 115), creating an Indian Claims Commission, [$1,324,000,] of which not to exceed [$15,000] shall be available for expenses of travel.	$1,420,000 $14,000

For "Salaries and expenses" for the period July 1, 1976, through September 30, 1976, $355,000.

Department of the Interior and Related Agencies Appropriation Act, 1975. Additional authorizing legislation to be proposed.

SMITHSONIAN INSTITUTION

FISCAL YEAR 1976 ESTIMATES OF APPROPRIATIONS

GENERAL STATEMENT

Organization and Performance

Founded in 1846, the Smithsonian Institution is an independent establishment devoted to public education, basic research, and national service in the arts, sciences, and history. Centered on the Mall in Washington, D. C., it also operates major facilities and activities elsewhere in Washington, across the country, and overseas.

One of the world's leading research centers, the Smithsonian is also the world's largest museum complex, attracting, with the Zoo, approximately sixteen million visitors yearly as well as additional millions who view traveling exhibits. As custodian of the National Collections, it possesses more than seventy million objects and specimens, only a few percent of which are on public display while the rest are available for scholarly research by Smithsonian staff and many hundreds of visiting students, scientists, and historians each year.

The Smithsonian complex consists of ten major exhibition buildings in the fields of science, history, technology, and art; a zoological park and an animal conservation and research center near Front Royal, Virginia; a preservation and storage facility at Silver Hill, Md.; a conference center at Elkridge, Md.; two natural preserves, in Panama and on the Chesapeake Bay; the innovative Anacostia Neighborhood Museum which operates in a low-income area of the city in cooperation with the local community; an oceanographic sorting center in Tunisia, whose work parallels the programs of the Institution's oceanographic center in Washington; an observatory at Mt. Hopkins, Ariz.; and supporting administrative, laboratory, and storage areas.

A wide range of programs is conducted in cooperation with other institutions, universities, and government agencies here in the United States and on every continent. Many of the research projects in nations abroad are funded through the use of excess foreign currencies. More than 1,000 research publicatons, exhibit catalogues, education pamphlets, information leaflets, etc. were prepared in the past year. Other communication activities include radio, television, motion picture programs, the successful magazine, Smithsonian, which now has almost 700,000 subscribers, the Archives of American Art Journal, and the recently acquired Art Quarterly.

In FY 1976 major efforts are being directed toward completion of collections restoration and exhibits preparation required for the Institution's participation in the Washington, D. C. Bicentennial effort as well as for its contribution to commemorative activity across the Nation. A major element of the Institution's Bicentennial program is the opening of the National Air and Space Museum on July 4, 1976. In addition, high priority is being given to continuing phased implementation of the Master Plan for the improvement of the National Zoological Park's animal and visitor facilities.

Management Planning and Organizational Effectiveness

The second Belmont Conference was held in February 1974 to define goals and priorities for the coming year. Priorities established by the Conference include exhibits production (including traveling exhibits); collections acquisition and collections management, including conservation and restoration of objects; and the growth needs of the Zoo. Scientific research will also continue as a high priority of the Institution with particular importance being directed towards fellowships, distinguished curators, and project research. Other efforts have been made to strengthen and improve the information flow and decision-making processes among

administrators and program and support managers. Significant among these efforts has been the creation of the Council of Directors and Administrative Officers Conference.

During FY 1974 and FY 1975, several important changes to the internal organization alignment of the Institution have been accomplished. These actions are designed to use current resources more effectively by aligning related or complementary functions or by strengthening the ability of certain major museums and galleries to administer directly key aspects of their programs. Manpower and dollar resources which are involved continue to be used for the purposes for which they were appropriated. Among the major changes are the following:

--Transfer of exhibits design, production, and associated personnel and related resources from the Office of Exhibits Programs to the museums and galleries in order to unify and strengthen the exhibit presentation function with the equally important collections management and research functions of these museums and galleries. This transfer was begun in FY 1974 and completed in FY 1975. A small Office of Exhibits Central has been retained to serve the needs of units with no exhibits capability and to provide certain specialized services for all the museums.

--Allocation among the units of printing funds formally centralized in the Smithsonian Institution Press. This will result in (1) each unit establishing the priorities for its manuscripts to be printed and (2) printing costs being shown as a function of program activity. Printing funds for certain Institution-wide publications were left with the Press.

--Transfer of custodial and minor-maintenance personnel and associated resources from the Office of Plant Services to museums, galleries, and laboratories. These transfers will give to museum, gallery, and laboratory directors responsibility for the cleanliness and appearance of their buildings and give these essential employees a closer feeling of involvement with the public service programs they are helping to support.

--Transfer of shipping funds formerly centralized in the Office of the Registrar to the units. Non-registration functions are being removed from the Office of the Registrar. This move recognizes the fact that shipping is an integral function of each museum's borrowing and lending programs and will result in the costs being shown as a function of program activity.

--Transfer of personnel and associated resources from the Office of Elementary and Secondary Education to the museums and galleries. These transfers, begun in FY 1974, and completed in FY 1975, reflect that the development of public education programs goes hand-in-hand with the planning and presentation of exhibits. This transfer will also result in the costs being shown as a function of the program activity. A small central education office will continue to coordinate the education programs in the bureaus. This central office will also serve as a liaison with local school systems and will develop special outreach projects.

--Transfer of funding for postage indicia from the Office of the Treasurer to the Office of Plant Services in order to combine all mail services in one office.

--Transfer of personnel and associated resources for the Oceanographic Sorting Centers from the Office of International and Environmental Programs to the National Museum of Natural History in order that all natural science, collection-based activities be administered by a single bureau.

--Transfer of positions and associated resources from the National Armed Forces Museum Advisory Board to the Museum of History and Technology to align the work of the Board with that of the recently established Eisenhower Institute, whose activities will center on the contributions that the Armed Forces of the U. S. have made to American society and culture.

Establishment of Position Ceiling

Over the past several years, inflation, in virtually all areas of expense, has gradually eroded the Institution's ability to fund positions for Congressionally approved programs. Additional positions have remained unfilled as program emphasis has changed or as a particular project has been completed. For the Office of Plant Services additional funds are requested in this budget to support positions which fall into the former category. In a further attempt to reflect more accurately the existing employment situation, the Institution has established the FY 1975 position total at 3,050.

For FY 1976 the Institution is requesting the following appropriations:

	1975 Appropriations	Requested 1975 Supplemental	Requested 1976 Increase	1976 Estimates
Salaries and Expenses	$67,789,000	$2,917,000	$8,702,000	$79,408,000
Science Information Exchange	1,755,000	50,000	70,000	1,875,000
Special Foreign Currency Program	2,000,000	-0-	-0-	2,000,000
Construction and Improvements, National Zoological Park	9,420,000	-0-	130,000	9,550,000
Restoration and Renovation of Buildings	1,490,000	-0-	- 23,000	1,467,000
Construction (Appropriation to liquidate contract authority)	7,000,000	-0-	- 4,000,000	3,000,000
Totals	$89,454,000	$2,967,000	$4,879,000	$97,300,000

Highlights of the budget requests are as follows:

A. Salaries and Expenses

1974 Appropriation	1975 Estimate	1976 Estimate
$58,868,000	$70,706,000	$79,408,000

This appropriation provides for the regular operating programs in the museums, galleries, zoological park, research laboratories, and other program units; for special programs of an Institution-wide nature (such as the American Revolution Bicentennial program); and for program support activities. This funding is allocated by major groups as follows: (Organizational allocation appears on pages A-2 and A-3.)

	1975 Base	Requested Increase	1976 Estimate
Science	$26,774,000	$3,202,000	$29,976,000
History and Art	11,484,000	824,000	12,308,000
Public Service	2,102,000	134,000	2,236,000
Museum Programs	5,329,000	423,000	5,752,000
Special Programs	5,186,000	599,000	5,785,000
Administrative and Support Activities	19,831,000	3,520,000	23,351,000
Totals	$70,706,000	$8,702,000	$79,408,000

The FY 1976 budget request continues to give high priority to the effort begun last year to strengthen support staffs. This budget also addresses high priority program needs--an area for which, excluding Bicentennial commitments, no additional resources were requested for FY 1975. The effects of inflation and the importance of the program activities, both in developing a better understanding of contemporary problems (i.e. environmental and energy-related issues) as well as in fulfilling the Institution's responsibilities to basic research and public education, strongly recommend their selective strengthening.

Major purposes to be served by the requested funding increase include:

1. Program Increases (Other than Bicentennial Related): $4,551,000

--Research - to support on-going and important new programs in the areas of tropical biology, high energy astrophysics, optical and infrared astronomy, regulatory and environmental biology, ecosystem and land-use research, and anthropology. ($410,000)

--Collections Acquisitions - to maintain a minimum acquisition program to supplement continued and active efforts to acquire gifts to the National Collections. Purchase funds are essential to acquire particular objects to establish fully representative reference collections or to display in new exhibitions. ($110,000)

--Collections Management - to provide additional assistance for the care of the collections which grow at a substantial rate and are utilized increasingly, and to develop and maintain programs of animal care and propagation for the living collections at the Zoo. ($207,000)

--Exhibition - to permit refurbishment and redesign of exhibit halls as well as animal habitats at the Zoo, aimed at increasing their educational usefulness, and to expand production capability of small but innovative exhibit programs. ($143,000)

--Education and Orientation - to provide improved tour, orientation, and other information services to museum visitors, and to relate more effectively performing arts presentations to the museums and their collections. ($105,000)

--Conservation - to improve the capability for specialized treatment, and analytical services required to prevent deterioration and loss of the collections. ($42,000)

--Libraries - to permit the acquisition and processing of library materials as well as the preservation and conservation of rare and valuable materials in order to serve increasing research and exhibit efforts. ($238,000)

--Automatic Data Processing - to reduce backlogs in the application of computer technology in the scientific research, collections management, and administrative areas. ($26,000)

--Photography - to improve production and management control of photographic services including the filing and retrieval of valuable negatives and transparencies. ($19,000)

--Archives - to fund an oral history program designed to document the history of the Institution and to improve capabilities for processing and preparing a rapidly growing collection of documentary material on American art. ($41,000)

--Protection - to provide adequate protection and security of buildings, exhibits, collections, and visitors. ($775,000)

--Buildings and Facilities Management - to fund custodial, maintenance, and transportation requirements, meet increased postage costs, and improve the capability for facilities planning and costing of construction projects ($2,273,000)

--General Administration - to provide assistance in accounting, personnel, auditing, property administration, and supportive clerical work. ($162,000)

2. Program Increases (Bicentennial Related): $1,641,000

--To meet the temporary need for increased maintenance, cleaning, protection, and visitor orientation services required by the larger visitor numbers and extended hours for buildings not previously open in the evenings. ($400,000)

--To assist in the preparation and installation of exhibits for the new National Air and Space Museum. ($1,241,000)

3. Uncontrollable Increases: $2,510,000

--To fund the projected higher cost of current employees caused by legislated pay raises, within-grade step increases, extra work day, and Workmen's Compensation payments. ($1,873,000)

--To assist in funding very large rate increases for steam and electricity. ($617,000)

--To meet the increase in shipping rates for the international exchange of literary, scientific, and cultural publications. ($20,000)

Included in the above program increases is an amount of $166,000 for additional travel costs. Special attention is being drawn to this area because of its important relationship to the accomplishment of related program efforts. The purchasing power of travel funds in the base has continued to be eroded as a result of fare increases. Careful review is given to all travel requests and only that travel considered to be of the highest priority is approved. Purposes of travel include: 1) the accompaniment of rare objects loaned to the Institution by owners who would not lend otherwise, as well as the accompaniment of animals being temporarily relocated either for breeding purposes or due to Master Plan construction at the Zoo; 2) the management of traveling exhibitions; 3) the need to meet personally with prospective donors to review and/or encourage gifts to the National Collections; 4) regular on-site review and administration of bureaus located outside the Washington area; 5) participation in national and international conferences, lectures, and training sessions which enable participants to remain current on recent developments in their respective fields as well as to contribute to the diffusion of knowledge; 6) travel necessary to the conduct of certain research projects; and 7) review of contract performance of companies outside the Washington area (for example, the contracted exhibits production effort related to the opening of the National Air and Space Museum). One factor, in particular, has added to the rise in requested travel funds for FY 1976. That is the cost of participant travel associated with the Festival of American Folklife. It is anticipated that there will be as many as forty-five hundred participants.

It is requested that special consideration be given to increasing travel authority for the Institution to $831,000.

B. Science Information Exchange (SIE)

1974 Appropriation	1975 Appropriation	1976 Estimate
$1,695,000	$1,805,000	$1,875,000

The Science Information Exchange acquires, processes, stores, and provides information on research projects in progress as a service to the research community. A funding increase of $70,000 will be used to develop and implement further the SIE machine-assisted indexing system, thereby improving input and processing time in subject areas of critical concern, and to expand efforts to encourage and provide for new state and local input into the Science Information Exchange system.

C. Special Foreign Currency Program

1974 Appropriation	1975 Appropriation	1976 Estimate
$4,500,000	$2,000,000	$2,000,000

This appropriation will provide level funding to continue a program of grants to United States institutions for field research in those countries where "excess" local currencies are available. Research will be performed in the following general areas of Smithsonian Institution interest and competence: archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and museum programs. In addition, funds are included for the third of four annual payments, each of $1,000,000 equivalent in "excess" Egyptian pounds, to UNESCO's international campaign to preserve archeological monuments in Nubia.

D. Facilities Planning, Renovation, Restoration, and Construction

1974 Appropriation	1975 Appropriation	1976 Estimate
$21,860,000	$17,910,000	$14,017,000

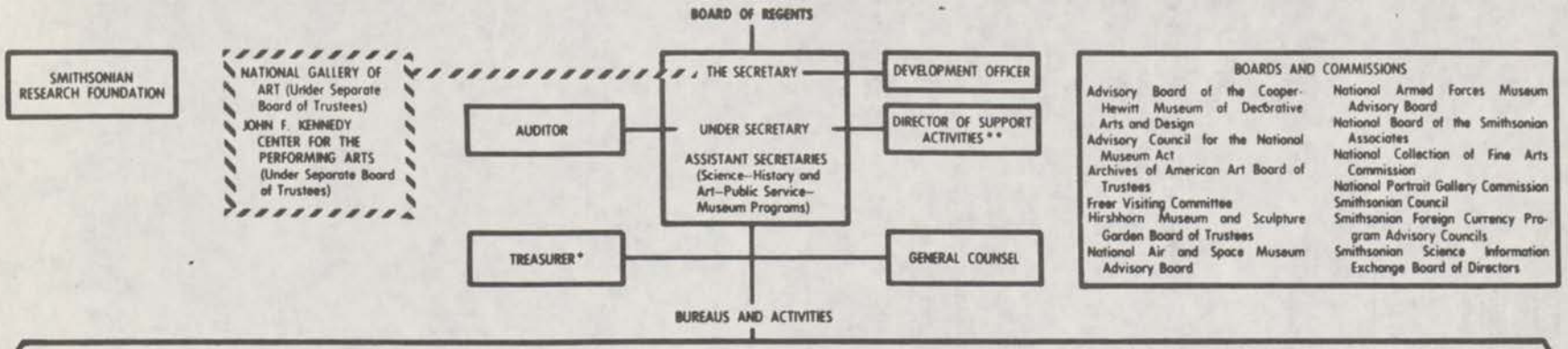
--Construction and Improvements, National Zoological Park ($9,550,000) - Continued phased implementation of the approved Master Plan by completion of the service facility and the construction and rehabilitation of bear exhibits; continued planning for the beaver, otter, seal, sea lion, and wolf exhibits; and design and installation of exhibit, orientation, and education graphics and street furniture. In addition, a program of repairs, renovation, and preventive maintenance of Zoo facilities in Rock Creek and at Front Royal, Virginia will continue.

--Restoration and Renovation of Buildings ($1,467,000) - Continue projects such as road improvements at the Mt. Hopkins, Arizona, Observatory, the installation of fire detection and suppression systems, renovation of the Arts and Industries Building and the south yard area, planning for a sixth floor library and research center addition to the History and Technology Building, and general repairs and improvements to buildings and facilities.

--Construction ($3,000,000) - Appropriation to liquidate contract authority for the completion of the National Air and Space Museum.

Details on each of these operating and construction programs appear in the following sections of this budget.

SMITHSONIAN INSTITUTION



WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS
(Under Separate Board of Trustees)

SCIENCE

- Center for the Study of Man
- Chesapeake Bay Center for Environmental Studies
- Fort Pierce Bureau
- National Air and Space Museum
- National Museum of Natural History
- National Zoological Park
- Office of International and Environmental Programs
  - Center for Short-Lived Phenomena
  - Smithsonian Oceanographic Sorting Center
- Radiation Biology Laboratory
- Smithsonian Astrophysical Observatory
- Smithsonian Science Information Exchange, Inc.
- Smithsonian Tropical Research Institute

HISTORY AND ART

- Archives of American Art
- Cooper-Hewitt Museum of Decorative Arts and Design
- Freer Gallery of Art
- Hillwood Museum
- Hirshhorn Museum and Sculpture Garden
- Joseph Henry Papers
- National Armed Forces Museum Advisory Board
- National Collection of Fine Arts Renwick Gallery
- National Museum of History and Technology
- National Portrait Gallery
- Office of Academic Studies
- Office of American Studies

PUBLIC SERVICE

- Anacostia Neighborhood Museum
- Division of Performing Arts
- Office of Elementary and Secondary Education
- Office of Public Affairs
- Office of Seminars
- Smithsonian Associates
- Smithsonian Institution Press
- Smithsonian Magazine

MUSEUM PROGRAMS

- Conservation Analytical Laboratory
- National Museum Act Programs
- Office of Exhibits Central
- Office of Museum Programs
- Office of the Registrar
- Smithsonian Archives
- Smithsonian Institution Libraries
- Smithsonian Institution Traveling Exhibition Service

*** FINANCIAL SERVICES**

- Accounting
- Business Management
  - Belmont Conference Center
  - Product Program
  - Smithsonian Museum Shops
- Grants and Insurance Administration
- Investments
- Programming and Budget

**** SUPPORT ACTIVITIES**

- Contracts
- Equal Opportunity
- Facilities Planning and Engineering Services
- Information Systems (ADP)
- International Exchange Service
- Management Analysis
- Personnel Administration
- Plant Services
- Printing and Photographic Services
- Protection Services
- Supply Services
- Travel Services

Approved June 13, 1974

S. Dillon Ripley
Secretary

1669

SMITHSONIAN INSTITUTION

SALARIES AND EXPENSES

Summary of Increase FY 1976

Appropriation, FY 1975	$67,789,000
Proposed Pay Supplemental	2,527,000
Proposed Program Supplemental (Utility rate increase)	390,000
Base, FY 1975	$70,706,000
FY 1976 Request	79,408,000
Requested Increase	$ 8,702,000

Transition Period Estimate

Transition Period Request	$22,010,000

"Salaries and Expenses"
Summary of the 1974 Appropriation and the 1975 and 1976 Estimates

(Dollars in thousands)

Unit	1974 Actual Pos.	1974 Actual Amount	1975 Estimate Pos.	1975 Estimate Amount	1975 Estimate Supplemental	1975 Estimate Total	1976 Estimate Pos.	1976 Estimate Amount	Analysis of Increase Uncontrollable Pos.	Analysis of Increase Uncontrollable	Analysis of Increase Program
Science											
Assistant Secretary for Science	7	168	7	289	5	294	7	338	-	7	37
National Museum of Natural History	430	8,399	461	9,169	334	9,503	480	10,030	19	267	260
Astrophysical Observatory	57	3,207	64	3,341	61	3,402	69	3,716	5	45	269
Tropical Research Institute	58	1,002	60	1,110	71	1,181	64	1,332	4	46	105
Radiation Biology Laboratory	48	1,426	48	1,498	44	1,542	48	1,631	-	55	34
Internat'l & Environmental Programs	46	910	25	555	16	571	25	586	-	15	-
Chesapeake Bay Center	15	344	18	429	14	443	22	539	4	14	82
National Air and Space Museum	114	2,632	165	3,949	85	4,034	230	5,537	65	73	1,430
Center for the Study of Man	14	293	11	304	18	322	12	385	1	14	49
National Zoological Park	286	4,564	294	5,084	398	5,482	304	5,882	10	220	180
Subtotal Science	1,075	22,945	1,153	25,728	1,046	26,774	1,261	29,976	108	756	2,446
History and Art											
Ass't Secretary for History & Art	11	242	11	249	8	257	11	267	-	10	-
Museum of History and Technology	248	4,333	259	4,948	191	5,139	266	5,395	7	136	120
National Collection of Fine Arts	94	1,778	100	1,980	94	2,074	103	2,247	3	69	104
National Portrait Gallery	60	1,246	71	1,485	59	1,544	74	1,686	3	38	104
Hirshhorn Museum & Sculpture Garden	54	1,326	83	1,505	52	1,557	83	1,625	-	44	24
Freer Gallery of Art	24	274	27	381	29	410	28	458	1	15	33
Archives of American Art	12	238	12	285	9	294	16	337	4	5	38
Nat'l Armed Forces Museum Advis Bd	6	108	-	-	-	-	-	-	-	-	-
Cooper-Hewitt Museum	9	174	11	200	9	209	16	293	5	4	80
Subtotal History and Art	518	9,719	574	11,033	451	11,484	597	12,308	23	321	503
Public Service											
Ass't Secretary for Public Service	8	181	10	202	7	209	10	215	-	6	-
Anacostia Neighborhood Museum	21	317	19	414	9	423	21	469	2	11	35
International Exchange Service	9	175	9	181	6	187	9	212	-	25	-
Division of Performing Arts	10	422	10	362	9	371	11	402	1	8	23
Office of Public Affairs	14	396	15	296	11	307	15	317	-	10	-
Smithsonian Institution Press	26	800	27	584	21	605	27	621	-	16	-
Subtotal Public Service	88	2,291	90	2,039	63	2,102	93	2,236	3	76	58

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Unit	1974 Actual		1975 Estimate				1976 Estimate		Analysis of Increase		
	Pos.	Amount	Pos.	Amount	Supplemental	Total	Pos.	Amount	Pos.	Uncontrollable	Program
Museum Programs											
Ass't Secretary for Museum Programs	45	494	63	838	97	935	64	1,005	1	46	24
Office of the Registrar	17	231	16	195	7	202	16	212	-	10	-
Conservation-Analytical Laboratory	19	319	21	546	15	561	23	606	2	13	32
Smithsonian Institution Libraries	65	1,165	86	1,552	38	1,590	90	1,868	4	40	238
Office of Exhibits Central	51	960	50	939	33	972	50	1,007	-	35	-
Traveling Exhibition Service	5	72	6	90	2	92	6	96	-	4	-
Smithsonian Archives	7	157	10	169	6	175	10	191	-	6	10
National Museum Act	3	884	3	800	2	802	3	767	-	2	-37
Subtotal Museum Programs	212	4,282	255	5,129	200	5,329	262	5,752	7	156	267
Special Programs											
American Rev Bicentennial Program	2	1,745	2	3,827	20	3,847	2	4,256	-	9	400
Environmental Sciences Program	8	190	2	185	4	189	2	193	-	4	-
Major Exhibition Program	-	103	-	80	-	80	-	260	-	-	180
Academic and Educational Programs	10	642	11	614	6	620	11	626	-	6	-
Research Awards Program	-	450	-	450	-	450	-	450	-	-	-
Subtotal Special Programs	20	3,130	15	5,156	30	5,186	15	5,785	-	19	580
Administrative & Support Activities											
Office of the Secretary	30	654	29	724	29	753	29	779	-	26	-
Office of the General Counsel	11	277	11	295	11	306	11	331	-	11	14
Office of the Treasurer	36	915	34	703	19	722	36	871	2	103	46
Office of Personnel Administration	33	535	33	615	23	638	33	658	-	20	-
Office of Audits	8	170	7	170	7	177	8	197	1	6	14
Office of Equal Opportunity	5	114	5	104	5	109	7	170	2	4	57
Printing and Photographic Services	37	779	39	792	24	816	40	858	1	23	19
Information Systems Division	18	381	23	442	19	461	25	502	2	15	26
Office of Supply Services	23	437	25	479	13	492	25	504	-	12	-
Management Analysis Office	11	190	10	207	8	215	10	222	-	7	-
Office of Protection Services	400	4,356	443	5,369	177	5,546	534	6,539	91	218	775
Facilities Planning & Eng Services	20	393	24	554	20	574	26	628	2	16	38
Office of Plant Services	335	7,300	280	8,250	772	9,022	320	11,092	40	721	1,349
Subtotal Admin & Support Act	967	16,501	963	18,704	1,127	19,831	1,104	23,351	141	1,182	2,338
Total	2,880	58,868	3,050	67,789	2,917	70,706	3,332	79,408	282	2,510	6,192

FY 1976 UNCONTROLLABLE INCREASES

The following additional funds are requested for costs that are beyond the control of the Smithsonian Institution. These increases result from law, from prevailing practices of wage setting, or from utility and shipping rate increases. A total of $2,510,000 is required for the following increased costs.

Necessary Pay and Related Benefits	$1,873,000
Utility Rate Increases	617,000
Shipping Rate Increases	20,000
	$2,510,000

NECESSARY PAY AND RELATED BENEFITS - An increase of $1,873,000 is required for personnel compensation and personnel benefits for the projected higher costs in FY 1976 of FY 1975 staff. These increases accrue to employees because of: legislated pay raises and within-grade step increases; an additional paid work day; and Workmen's Compensation payments. These costs are calculated on a position-by-position analysis taking into consideration approved new hires in the current year and savings from promotions, turnover, and filling of vacancies at lower grades where possible. Absorption of these costs from currently available funds seriously hurts approved program activity. First, for every $12,000 that goes to these costs from funds already in salaries and benefits, one man-year of employment is lost. Second, if other object class funds must be applied to these costs, productive employees are left without the supplies, tools, and equipment they need to do their jobs well. Since inflation in the costs of these materials already is taking its toll, pay cost absorption would be crippling. These additional costs are divided among the following:

(1) Annualization of Legislated Pay Raises ($827,000) - The requested essential FY 1975 pay supplemental appropriation amounts to $2,527,000. Necessary pay of $827,000 is required to annualize funding in FY 1976. This includes funds for the following legislated General Schedule and Wage pay raises:

--$618,000 for the General Schedule pay raise effective on October 14, 1974 (E.O.11811, issued pursuant to P.L. 91-656) to cover the period of costs from July 1, 1975, through October 13, 1975. Over 2,300 employees are affected by this raise which was 5.5 percent over the previous pay scale. The full-year cost of this raise in FY 1976 is calculated at $2,054,000. Necessary pay of $618,000 is requested to annualize funding in FY 1976 for the period July 1, 1975-October 13, 1975. (Estimated total cost $2,054,000 minus FY 1975 supplemental of $1,436,000 = $618,000.)

--$209,000 for several FY 1974-75 Washington, D. C. and other locale Wage pay raises. Prevailing practices call for the Wage pay scales in various geographical areas to be reviewed by a local Wage Fixing Authority to see how the wages paid by the U.S. Government compare to wages paid similar employees by the private sector in those geographic areas. In recent years, this comparison has been made at least yearly and several times more often. Some 623 Smithsonian Wage employees in Washington, D. C. received a 6 percent pay increase on October 27, 1974, granted under 5 U.S.C. 5341. Other Wage employees of the Institution, working in Maryland, Virginia, Arizona, New York, and the Panama Canal Zone, also received wage increases of various amounts at different times of the year. The proposed supplemental appropriation will meet the current year costs of these actions. The full-year cost of these raises in FY 1976 is estimated at $1,300,000. Necessary pay funding of $209,000 is sought to annualize funding in FY 1976 for the balances of the effective periods. (Estimated total cost $1,300,000 minus FY 1975 supplemental of $1,091,000 = $209,000.)

The distribution of the requested FY 1975 pay supplemental appropriation by organization unit is shown on pages A-2 and A-3. Certain of these units also are requesting utility supplemental funds as explained on page A-6. Total Uncontrollable Increases are included on pages A-2 and A-3.

(2) Step Increases ($801,000) - Necessary pay funding of $801,000 is required in FY 1976 for General Schedule and Wage within-grade and periodic step increases. For GS employees, such increases are required by P.L. 88-426, the Government Employees Salary Reform Act of 1964. Wage employees are covered by law and prevailing practices. Such increases must be granted if employees are performing at acceptable levels of competence. The requested increase will fund the annualization of such increases granted in FY 1975 and part-year cost of new increases granted in FY 1976. Calculated on an individual position basis, in FY 1975 it is estimated that 1,776 employees will be granted periodic steps. In FY 1976 the Institution will have to annualize these costs ($420,000) and fund the costs of 1,888 new periodic steps ($381,000). Offsets have been made to the requested increase for turnover and promotions.

The General Schedule portion of this request amounts to $608,000. There are over 2,300 General Schedule positions with 1,485 scheduled to receive a new within-grade in FY 1976. The Wage portion of this request is $193,000. There are approximately 750 employees in Wage positions, of whom 403 will receive new within-grades in FY 1976.

(3) Extra Day ($160,000) - The annual pay scale in effect in the Federal government is based on 260 paid days. FY 1976 will have 262 paid work days. Since funds are already in the base for one additional work day in FY 1975, the request is for funding for one more day.

(4) Workmen's Compensation ($85,000) - Section 8147(b) of Title 5, United States Code, provides for payments to be made to employees for injuries and to their families in case of death. These payments are determined and made by the U.S. Department of Labor's Office of Workers' Compensation Programs. Each August, the Department of Labor bills agencies the cost incurred by their employees for the previous fiscal year. These bills are payable the next July. The Institution has placed emphasis on a safety program. One of the functions of the Office of Protection Services is to make and enforce safety regulations in the Institution. Even though various prevention activities have taken place, with the increase in employees the number of cases in FY 1974 increased to 78 as compared to 66 in FY 1973. The bill for FY 1974 (payable in FY 1976) is $182,773. With the $98,000 that is in the base for FY 1975, an additional $85,000 is needed to finance this bill.

The distribution of the FY 1976 Necessary Pay components by organization units is shown on page A-8.

UTILITY RATE INCREASES - An FY 1975 supplemental appropriation of $390,000 is requested to help cope with dramatic increases in the costs of steam for heating (supplied primarily by the General Services Administration) and electricity purchased from the Potomac Electric Power Company and similar companies in other locales of Smithsonian operations. These cost increases in FY 1975 are attributed almost entirely to substantial rate hikes, not increased usage. Energy conservation and mild winter weather in 1973-1974 and so far in 1974-1975 have helped to hold down costs. Even so, significant cost absorption will be required in FY 1975 despite the supplemental--if appropriated. This cost absorption will force the deferral to FY 1976 of essential supply replenishment, the replacement of worn-out equipment, and necessary plant maintenance. Since Smithsonian consumers of utilities may have to assist in funding their costs this year, the Institution's capability for pay cost funding is further limited.

The table on page A-9 shows the Smithsonian's Office of Plant Services expenses. This office funds utility services for buildings on and near the Mall. These figures are closely representative, however, of the similar funding problems being faced by those Institution bureaus outside of this geographical area, which budget for their own utility services. This table shows that while projected FY 1975 use of steam will increase only about 6 percent over FY 1973, costs will be up almost 87 percent. Similarly, electricity use is up about 13 percent over the same period, but costs are well over 100 percent more.

The $390,000 will be distributed as follows:

Office of Plant Services	$363,000
National Zoological Park	17,000
Other units	10,000
	$390,000

These amounts are included in the FY 1975 supplemental column pages A-2 and A-3.

For FY 1976, an additional $617,000 is requested to close the gap between current funding and the costs of current use and to help meet new rate increases. This amount by organization unit is shown on the "Other Uncontrollable" line in the FY 1976 justifications for those bureaus and offices affected. Other than certain new requirements separately justified, for the new National Air and Space Museum and National Zoological Park building spaces, the FY 1976 budget does not provide for increased use. Strict energy conservation measures will be continued.

SHIPPING RATE INCREASES - An amount of $20,000 is requested to help meet shipping rate increases. The International Exchange Service is the official exchange bureau in the United States for international exchange of literary, scientific, and cultural publications. In addition, 14 Stat. 573, as amended, provides that the exchange of the United States Government publications shall be made through the Smithsonian. The major cost to this program, besides salaries, is shipping charges. Shipping rates have gone up drastically for ocean freight and shipping to the docks. Comparing the first six months of FY 1974 and 1975 shows that the cost per pound of such shipping has increased about 25 percent.

July-December	Pounds Shipped	Cost	Cost Per Pound
FY 1974	246,313	$26,800	$0.11
FY 1975	225,967	30,700	0.14

While improved packing methods helped to offset rate increases in prior years, additional funds are now needed to avoid curtailing the exchange of important publications.

Necessary Pay
FY 1976
(Dollars in Thousands)

Unit	Within Grades	Annual GS Raise	Annual Wage Raises	Extra Day	Total
Assistant Secretary for Science	2	4		1	7
National Museum of Natural History	114	115	11	27	267
Smithsonian Astrophysical Observatory	16	20	3	6	45
Smithsonian Tropical Research Institute	20	10	6	3	39
Radiation Biology Laboratory	13	7	4	3	27
Internat'l & Environmental Programs	7	6		2	15
Chesapeake Bay Center	4	9		1	14
National Air and Space Museum	30	36	1	6	73
Center for the Study of Man	3	10		1	14
National Zoological Park	75	29	58	14	176
Assistant Secretary for History and Art	6	3		1	10
National Museum of History & Technology	63	44	17	12	136
National Collection of Fine Arts	25	35	5	4	69
National Portrait Gallery	17	14	5	2	38
Hirshhorn Museum and Sculpture Garden	18	19	4	3	44
Freer Gallery of Art	7	6	1	1	15
Archives of American Art	1	3		1	5
Cooper-Hewitt Museum	2	1		1	4
Assistant Secretary for Public Service	2	3		1	6
Anacostia Neighborhood Museum	6	4		1	11
International Exchange Service	2	2		1	5
Division of Performing Arts	3	4		1	8
Office of Public Affairs	4	5		1	10
Smithsonian Institution Press	7	8		1	16
Assistant Secretary for Museum Programs	14	3	27	2	46
Conservation-Analytical Laboratory	6	6		1	13
Office of Exhibits Central	13	19		3	35
Office of the Registrar	5	4		1	10
Smithsonian Institution Libraries	21	15		4	40
Smithsonian Traveling Exhibition Service	2	1		1	4
National Museum Act	1			1	2
Smithsonian Archives	3	2		1	6
American Revolution Bicentennial Program	1	8			9
Environmental Sciences Program	1	3			4
Academic and Educational Programs	3	3			6
Office of the Secretary	11	12		3	26
Office of the General Counsel	7	3		1	11
Office of the Treasurer	10	7		1	18
Office of Personnel Administration	9	9		2	20
Office of Audits	2	3		1	6
Office of Equal Opportunity	1	2		1	4
Office of Printing and Photo Services	11	8	2	2	23
Information Systems Division	6	8		1	15
Office of Supply Services	6	5		1	12
Management Analysis Office	3	3		1	7
Office of Protection Services	120	78	1	19	218
Facilities Planning & Eng. Services	6	8		2	16
Office of Plant Services	92	11	64	16	183
Total	801	618	209	160	1788*

* Excludes the Workmen's Compensation payment of $85 which is not charged to bureaus. The bill is paid by the Office of the Treasurer. Total request for Necessary Pay is $1,873.

Use-Millions of KWH for electricity and lbs. of steam
Rate in dollars (per KWH and per thousand lbs. of steam)
Cost in thousands of dollars

OFFICE OF PLANT SERVICES [1]

Use and Costs of Steam and Electricity

Utility	FY 1973 Actual			FY 1974 Actual			FY 1975 - 1976 Estimate				
	Use	Average Rate ($)	Cost ($000s)	Use	Average Rate ($)	Cost ($000s)	Use	Average Rate ($)	Cost ($000s)	Budget ($000s)	Deficit ($000s)
GSA steam for heating	247.4	$2.61	$646	219.6[2]	$2.96	$650	261.6[3]	$4.61[4]	$1,206	$900	$306
PEPCO Electricity	56.5	0.016+	912	53.3[2]	0.022+	1,183	64.1[3]	0.03+	1,925	1,400	525
Total Costs			$1,558			$1,833			$3,131	$2,300[5]	$831[6]

1/ Funds steam and electricity for Smithsonian museums, galleries, and other space on and near the Mall. Cost increases resulting largely from rate hikes are closely representative, however, of similar experience of Institution activities outside of this geographical area who must fund their own utilities.

2/ Reduction from FY 1973 reflects primarily an unusually mild winter with some contribution from energy conservation measures.

3/ Increase reflects anticipated more normal winter temperatures than FY 1974 and operations of Hirshhorn Museum and Sculpture Garden.

4/ Rate announced by GSA in November 1974 but retroactive to July 1, 1974 without notice.

5/ Office of Plant Services started FY 1975 with budget of about $2,100,000 as compared with FY 1974 actual of $1,800,000. Additional $200,000 reflects further absorption effort to meet needs. Note that FY 1976 costs are estimated to be $1,300,000 over FY 1974 actual.

6/ This shortfall of funding to be met in FY 1975 by the requested supplemental (if appropriated) and by deferring to FY 1976 essential supply replenishment, replacement of worn-out equipment, and necessary plant maintenance and other program needs. This deficit in FY 1976 will be met by this office's share of the FY 1975 supplemental ($363,000) continuing in the base plus its share of the FY 1976 Uncontrollable amount ($538,000). Total funding of $901,000 by these actions allows for token contribution to new rate increases. FY 1976 use and cost figures do not include new National Air and Space Museum building for comparability. The budget request for this building is presented separately.

OFFICE OF THE ASSISTANT SECRETARY FOR SCIENCE

1974 Actual.....$168,000
1975 Estimate.....$294,000
1976 Estimate.....$338,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	7	0	7
11 Personnel Compensation.....	138	25	163
12 Personnel Benefits.....	12	2	14
21 Travel & Trans. of Persons...	16	5	21
22 Transportation of Things.....	4	2	6
25 Other Services.....	87		87
26 Supplies and Materials.....	17	5	22
31 Equipment.....	20	5	25
TOTAL	294	44	338
Analysis of Increase			
Necessary Pay.....		7	
Program Funds.....		37	

ABSTRACT - This office is responsible for overall planning, coordinating, and reviewing the progress of the thirteen science bureaus and programs within the Institution. The International Environmental Program is administered from this office. A program increase is being sought for this office in the amount of $37,000. Necessary pay in the amount of $7,000 is being sought for existing staff.

PROGRAM - I. Immediate Office of the Assistant Secretary for Science with 7 positions and $208,000 advises and assists the Secretary in planning, implementing, and reviewing the progress of Smithsonian science programs. The Bureaus reporting to the Assistant Secretary for Science are the National Museum of Natural History, the Radiation Biology Laboratory, the Tropical Research Institute, the National Zoological Park, the National Air and Space Museum, the Astrophysical Observatory, the Office of International and Environmental Programs, the Chesapeake Bay Center for Environmental Studies, the Center for the Study of Man, the Science Information Exchange, and the Fort Pierce Bureau. This office is also responsible for the administration of the Research Awards, the Environmental Sciences, and the International Environmental Program.

II. International Environmental Program (IEP) - With $130,000 transferred from the Office of International and Environmental Programs, the Office of the Assistant Secretary for Science administers the International Environmental Program. IEP is an interbureau, interdisciplinary effort aimed at studying various ecosystems in the tropics and subtropics. Each project is designed to be long-term (between 5 and 15 years) so that a sufficient body of all-important phenological and systematic data can be accumulated and at the same time the host nation can prepare to take over full responsibility for the project's management. Special attention is given to studying endangered species and their habitats. Nationals of the country where the research is being carried out are being involved to the fullest extent possible and every effort will be made to translate results as soon as possible into applications for the effective conservation and management of the ecosystem being studied.

The major sites chosen for work are (1) the marine ecosystem of the Galapagos Islands, Ecuador, (2) the Fly River region of Papua, New Guinea, (3) the Amazonian region surrounding Manaus, Brazil, (4) savanna and forest sites south of Maracay, Venezuela, and (5) Chitawan National Park in the Terai of Nepal. Field staff will be predominately

Smithsonian researchers from the National Museum of Natural History, the National Zoological Park and the Smithsonian Tropical Research Institute in Panama. In addition to the foreign nationals already involved, an increasing number of scientists from American universities and other research organizations are expected to participate.

JUSTIFICATION OF $37,000 INCREASE (Research) - Term scientists (appointments limited from one to three years) as well as Smithsonian scientists will be used to pursue the studies at the various locations chosen for the International Environmental Program. Funds are requested to support this important interbureau, interdisciplinary research. An increase of $37,000 is requested for this program.

NATIONAL MUSEUM OF NATURAL HISTORY

1974 Actual.....$ 8,399,000
1975 Estimate.....$ 9,503,000
1976 Estimate.....$10,030,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	461	19	480
11 Personnel Compensation.....	7,423	439	7,862
12 Personnel Benefits.....	639	37	676
21 Travel & Trans. of Persons...	103	2	105
22 Transportation of Things.....	21		21
23 Rent, Comm. & Utilities.....	23		23
24 Printing and Reproduction....	182		182
25 Other Services.....	703	19	722
26 Supplies and Materials.....	132	9	141
31 Equipment.....	277	21	298
TOTAL	9,503	527	10,030
Analysis of Increase			
Necessary Pay.....		267	
Program Funds.....		260	

ABSTRACT - The National Museum of Natural History (NMNH) serves as a center for the natural sciences. It maintains large reference collections and conducts programs of identification and documentation, research, collections management, exhibits, and education--including collaborative projects with universities and other institutions of learning. An increase of 19 positions and $260,000 is requested for FY 1976 to meet the following support requirements: (1) Collections Management - 11 museum technicians ($110,000) to provide additional assistance for the care of the collections which grow at a substantial rate and are utilized increasingly each year; (2) Exhibitions - 3 exhibits technicians ($64,000) and additional funding of $36,000 to provide for the phased modernization of exhibit halls to enhance their educational value; and (3) Buildings and Facilities Management - 2 laborers and 3 janitors ($50,000) to provide more adequate building labor and cleaning services. An additional amount of $267,000 is sought for necessary pay.

PROGRAM - This Museum serves as a national and international center for the natural sciences. It maintains the largest reference collections in the nation (over 60 million objects) and has the legal responsibility (20 U.S.C. 59) to serve as the ultimate Federal repository of all collections and objects of natural history, archeology, and ethnology made by agencies of the government when no longer needed by those agencies for investigations in progress. Additionally, the NMNH is the repository for numerous extremely valuable collections obtained from other sources, such as the scientific community and academic institutions, as well as many private individuals.

The scientists at the Museum conduct a broad program of basic research on man, plants, animals, fossil organisms, rocks, minerals, sediments, and materials from outer space. Their fundamental studies in systematics and biology are providing new information required for the solution of major problems of conservation, pollution, food production, improvement of medical knowledge, and for planning national and international programs leading to predictive ecology and environmental management. Scientific and technical results which flow from this scientific research are made available to others by an active and large publications program. Additionally, the Oceanographic Sorting Center in Washington, D.C., recently reassigned to the Museum, prepares and distributes animal and plant materials to scientists from 200 agencies around the world who are concerned with marine pollution, ocean dumping, pollution monitoring, environmental prediction, and systematics studies.

Over three million people visit the Museum each year, including many thousands of school children attracted by the exhibits. A major program of exhibit improvement began in FY 1974 with the creation of the new exhibit, "Ice Age Mammals and the Emergence of Man", and the very successful Discovery Room, an area in which visitors may handle exhibits and collections. In FY 1975 major exhibits effort is being directed to the preparation of the Bicentennial exhibit "Our Changing Land" and to a new hall of ecological archeology dealing with South America titled "A Continent and its Cultures." As a part of its education program, the Museum provides assistance for elementary and secondary school groups. In addition, many members of the scientific staff participate in joint educational programs with universities by teaching courses, training graduate students, and conducting science seminars. The Museum also provides leadership in the improvement of museum techniques and collections management, especially through the application of computer technology. The cafeteria, Museum Shop, and classroom facilities now under construction in the Museum's West Courtyard with non-appropriated funds will provide major new public service opportunities.

JUSTIFICATION OF $260,000 INCREASE:

Collections Management - Beginning in FY 1972 the Museum undertook a long-range program designed to correct the inefficient operations resulting from the shortage of support personnel and meager operating funds available to the scientific staff. With the support of the Office of Management and Budget and the Congress significant improvements have been made but the current status is still far short of the original objective of an average of 3 support personnel for each NMNH scientist. For the past 3 years an interim target ratio of 2 to 1 has been set. Increased funding ($110,000) for 11 museum technicians requested in this budget will achieve a ratio of 1.80 to 1.00 bringing the Museum closer to this interim goal (see table). These additional technicians will provide laboratory and research assistance to NMNH scientists such as cleaning and collecting specimens, preparing thin sections, and dissecting animals, thereby improving the efficiency and productivity of the scientific staff. In addition, the new employees would be used to help care for the rapidly growing collections at the Museum. Real damage and loss is occurring to valuable specimens because of slowly evaporating preservative fluids, crumbling labels, and deteriorating containers. Care of these collections is of the utmost importance in order that they may be preserved for study and exhibit purposes.

Ratios of Man-Years of Effort Between Support and Professionals /1

Fiscal Year	Support Staff	Scientists	Ratio
1974 actual	175	111	1.58:1.00
1975 estimate	189	111	1.70:1.00
1976 estimate	200	111	1.80:1.00

/1 Ratios apply only to personnel assigned directly to science support. They exclude personnel in ADP applications, exhibits, education, and the director's office. The table also excludes Sorting Center personnel for whom data are unavailable prior to FY 1975.

Exhibitions - The Museum has planned a long-range exhibits program aimed at developing a better understanding of man's relationships to and dependence upon all other life. Most exhibits in the Museum are presently organized by scientific disciplines and thus fail to establish properly the interrelationships between man, animals, plants, and the inorganic world. The plan to redesign and refurbish the more than 30 exhibit halls, integrating the scientific content of the halls in accordance with modern scientific practices, is projected to extend over a period of 20 years. This anticipates a design and production period of 1 1/2 to 2 years per exhibit and completion of 1 1/2 major halls a year.

During the first two years, work on the following new exhibits is planned: a hall of lunar geology which will illustrate man's new understanding of the geology of the moon, as exemplified by the rock and soil samples returned in the Apollo Program; a hall featuring living insects which will illustrate their interrelationship with animals and plants and their interactions with man; an exhibit examining origins of western civilization, focusing upon the domestication of animals and plants and the development of metallurgy in Asia Minor; and finally, an exhibit which examines the processes of organic change in the living world.

Using past experience as a guide, most halls should cost in the range of $350,000 to $450,000. The present exhibits base of about $500,000, insufficient to meet anticipated costs of the new program, must also be used, in part, to continue general maintenance and upgrading of existing exhibits. An additional $100,000 and 3 exhibits technicians are requested to create a sufficient level of funding in the base for this long-range exhibits program.

Buildings and Facilities Management - In FY 1976, the Bicentennial year, the National Museum of Natural History expects an approximate doubling in its number of visitors. An increase to 6 million visitors per year will place an exceedingly heavy burden on an already understaffed building management force. A study determined that the force should include a minimum of 78 positions to provide adequate service for public and employee use of the building. Even with increased resources in FY 1975, the buildings management staff will not exceed 61. The requested sum of $50,000 will be used to employ 5 additional custodial personnel and purchase necessary supplies and materials to improve this situation and to provide cleaner and better maintained facilities for visitors and employees.

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

1974 Actual..... $3,207,000
1975 Estimate..... $3,402,000
1976 Estimate..... $3,716,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	64	5	69
11 Personnel Compensation.....	1,682	133	1,815
12 Personnel Benefits.....	145	12	157
21 Travel & Trans. of Persons...	71		71
22 Transportation of Things.....	55		55
23 Rent, Comm. & Utilities.....	286		286
24 Printing and Reproduction....	21		21
25 Other Services.....	311	69	380
26 Supplies and Materials.....	95	15	110
31 Equipment.....	229	85	314
32 Lands and Structures.....	507		507
TOTAL	3,402	314	3,716

Analysis of Increase	
Necessary Pay.....	45
Program Funds.....	269

ABSTRACT - The goal of the Smithsonian Astrophysical Observatory (SAO) is to increase and diffuse knowledge about the Earth and the astronomical universe. Heavy emphasis is placed on both observational and theoretical research in astronomy, based on the principles of physics and chemistry. In addition to its headquarters and laboratories at Cambridge, Massachusetts, SAO facilities include a multi-purpose observatory at Mt. Hopkins, Arizona; a world-wide network of associated field stations which observe artificial satellites and comets; and a network of automatic stations in the midwestern United States which photograph meteors.

An increase of 5 positions and $269,000 is requested for FY 1976 to meet scientific program needs and to provide general administrative and support services. Specifically: (1) Research - $125,000 for laboratories and $44,000 for the visiting scientist and postdoctoral programs; and (2) General Administration - 5 positions and $100,000 for field, personnel, payroll, and property management purposes are requested. An additional $45,000 is sought for necessary pay.

PROGRAM - Two scientific problems drive the research program at SAO. One is the evolution of matter, starting with the explosive beginnings of the universe 20 billion years ago. After the formation of galaxies and stars, some matter collapses into unusual objects, like quasars, neutron stars, and black holes. The extreme physical conditions found in these objects test fundamental principles of physics, including Einstein's Theory of Relativity and modern theories of elementary particles. By studying the evolution of stars and galaxies, SAO contributes to basic physical theory.

The other problem concerns cosmic matter that has cooled to the point that molecules and solid particles form. The condensation of materials accompanying the formation of a star like the Sun results in the formation of planets and, ultimately, in the emergence of life. By studying the Earth, the solar system, and cool matter in space, SAO contributes to an understanding of the processes leading to the origin of life in the universe.

Progress toward the solution of these problems is achieved by a variety of different approaches. Study of matter under extreme conditions can be approached through high-energy astrophysics, optical and infrared astronomy, and solar and stellar physics, while the study of molecules and solid particles can be approached through optical and infrared astronomy, radio astronomy, planetary sciences, and geoastronomy. Atomic, molecular, and radiation physics, as well as theoretical astrophysics, underlie both approaches. Each approach requires specific research tools. For example, high-energy astrophysics is based on obervations made by rocket, balloon, and satellite-borne telescopes to detect x-rays and gamma rays from space, while atomic, molecular, and radiation physics are studied by using ground-based laboratories and computers. In addition to its headquarters and laboratories at Cambridge, Massachusetts, SAO facilities include a multi-purpose observatory at Mt. Hopkins, Arizona; a world-wide network of associated field stations which observe artificial satellites and comets; and a network of automatic stations in the midwestern United States which photograph meteors.

The Observatory is now completing its second year of operation as a partner, together with the Harvard College Observatory, in the Center for Astrophysics. The Center comprises a number of research divisions, which emphasize the different approaches described above. The Center has conducted a study of its operations in FY 1974 and is pursuing a development plan for the five years 1975 to 1979. The budget request is based on that plan. The Center's plan emphasizes an increase in the collaboration between Harvard and Smithsonian, which in the past has enhanced the effectiveness of SAO by bringing talented students and young scientists from physics, astronomy, chemistry, and geology into the research program.

The plan requires that specific objectives be met - i.e., the development of laboratories and research capabilities that meet critical deficiencies in the current program. In each case, the objective is to provide a resource, either in instruments or in personnel, that will increase the effectiveness of research efforts already underway by filling an important gap. A number of programs that have achieved their objectives are being phased out in order to free additional resources toward this end.

While it is impossible to predict beforehand the specific results of research, one can plan the programs (including manpower, equipment, and operations) necessary to give significant scientific results and, through the conduct of periodic reviews, determine the effectiveness of the Observatory's programs and operations. SAO has adopted the establishment and operation of these programs as its management objectives.

In the course of this review, a number of programs have been phased out, in order to provide additional resources to higher priority programs. However, some of the resources released by this action have been required to cover increased costs in rent, utilities, and communications.

JUSTIFICATION OF $269,000 INCREASE (Research and General Administration):

High Energy Laboratory - As a fundamental part of its objective of maintaining a nationally significant program in high energy astrophysics to permit studies of matter under extreme conditions in the cosmos, it is essential that SAO establish a laboratory for the conduct of experimental research in high energy astrophysics. Although x-ray astronomy is based on space-borne telescopes, a laboratory is critically needed to facilitate the development, testing, and calibration of instruments for rocket and satellite missions. The laboratory will also be used to conduct research on critical materials and for the development of x-ray detectors. Funds ($80,000) sought in FY 1976 will permit the design, development, and construction of the x-ray source; the design and development of x-ray detectors; and the design and evaluation of a 70-foot long vacuum pipe.

Optical and Infrared Laboratory - SAO must expand its laboratory capabilities in support of its two major goals in optical and infrared astronomy. SAO, in collaboration with the University of Arizona, is developing a unique facility in the large multimirror telescope (MMT) and has demonstrated a strong capability to utilize a balloon-borne infrared telescope in collaboration with Harvard University and the University of Arizona. These telescopes as well as SAO's existing ground-based instruments require the continuing development of new detectors and instrumentation in order to realize their full scientific potential. Funds ($45,000) sought will be used for electronic and optical equipment required in the assembly and testing of optical and infrared instruments.

Visiting Scientist and Postdoctoral Programs - In order to strengthen the scientific programs at SAO and, at the same time, to increase the availability to the entire scientific community of the specialized facilities of the Observatory, a program of visiting scientists and postdoctoral fellows is being developed in cooperation with Harvard College Observatory (HCO). Participants are chosen on the basis of their scientific excellence, their ability to utilize the Center's resources, and their contribution to its objectives. Out of more than 250 postdoctoral candidates, the Center was able to support 6 (4 by HCO and 2 by SAO). Ultimately, the Center will have about 6 visiting scientists and 12 postdoctoral fellows at one time, supported equally by HCO and SAO. In FY 1976, $44,000 is requested to support 2 additional postdoctoral fellows and 1 or 2 visiting scientists, depending on the length of their stay at the Center.

General Administrative and Support Services - In FY 1975, the first step was taken to correct the imbalance that has developed over the past several years between SAO's Federally funded and grant and contract funded general administrative and support activities. About $100,000 were approved for this purpose. This was approximately half the amount requested and is far short of what is needed to correct the

imbalance and thus provide adequate administrative and support personnel for Federally funded research programs. In total, approximately 25 positions and $500,000 are required. As a further step towards solving this problem, 5 additional positions and $100,000 are requested in FY 1976. Trained and capable administrative and support personnel, now supported by grant and contract funding, will be hired to fill these positions. These positions include: 2 positions and $52,000 for facilities management at the Mt. Hopkins Observatory (a field manager and a support supervisor); and 3 positions and $48,000 for general administration, which include a personnel assistant, payroll administrator, and property administrator.

Highlights of SAO Research Results

FY 1974

--Publication of Blanketed Model Atmospheres for Early Type Stars, a companion volume to the previously published Celescope Catalog, representing an analysis of the Celescope data as applied to stellar theory.

--Publication of 1973 Smithsonian Standard Earth (III), the latest calculation of the earth's shape and size with respect to gravitational variation and a uniform network of geodetic postions.

--The first identification of a probable "black hole" in the constellation Cygnus.

--Detection by means of radio observations of the basic organic hydrocarbon radical, methylidyne, in the tail of Comet Kohoutek. (Jointly discovered with astronomers from the Harvard College Observatory who were supported in part by the National Science Foundation.)

--Development of two separate but related theories concerning the creation and evolution of the moon which involves the probable breakup, capture, and later recombination of the primoridal lunar body by the earth.

--Recognition and description of the peculiar orbital properties of the Mariner 10 spacecraft which allowed a second fly-by mission to the planet Mercury.

FY 1975

--First publication of major results from the ultraviolet and x-ray experiments aboard Skylab by Harvard and Smithsonian scientists revealing, among other new findings, the presence of coronal holes.

--Discovery of a second probable "black hole" in the constellation Circinus.

--Discovery by means of radio observations of molecular ethanol in interstellar space. (Jointly discovered with astronomy groups at the University of Maryland, National Radio Astronomy Observatory, National Bureau of Standards, in Australia, and at the University of Chicago. The SAO effort was cooperative with Harvard College Observatory astronomers supported in part by the National Science Foundation.)

--Completion of the telescope mount for the Multiple Mirror Telescope.

--Co-sponsorship of International Astronomical Union Colloquium 26: "On Reference Coordinate Systems for Earth Dynamics", Torun, Poland, which attracted more than 100 scientists from 20 countries.

--Flight aboard a joint American-Dutch satellite of an x-ray experiment designed to map and study x-ray sources.

--Confirmation, through precise orbital determinations, that a newly discovered object near Jupiter is actually the 13th Jovian satellite.

--Discovery of a second celestial source of high-energy gamma rays in the constellation of Centaurus.

--Development of a new theory of the molecules observed in comets, based on rapid chemical reactions.

--Begin construction of the MMT telescope shelter atop Mt. Hopkins.

FY 1976 (Expected)

--Flight of a rocket probe experiment to test the equivalence principle of Einstein's Theory of Relativity.

--Flight of a spacecraft-to-spacecraft doppler tracking experiment aboard the Apollo-Soyuz space mission that is intended to study small-scale structures in the earth's gravitational field.

--Begin installation of the MMT telescope atop Mt. Hopkins, Arizona.

--Preparation of the x-ray experiments designed to fly aboard the High Energy Astronomy Observatory satellite series.

--Participation by the Smithsonian's world-wide satellite tracking network in NASA's Earth and Ocean Applications Program.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

1974 Actual.....$1,002,000
1975 Estimate.....$1,181,000
1976 Estimate.....$1,332,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	60	4	64
11 Personnel Compensation.....	835	90	925
12 Personnel Benefits.....	112	16	128
21 Travel & Trans. of Persons...	35	12	47
22 Transportation of Things.....	6	2	8
23 Rent, Comm. & Utilities.....	36	12	48
24 Printing and Reproduction....	1	2	3
25 Other Services.....	85	1	86
26 Supplies and Materials.....	49	16	65
31 Equipment.....	22		22
TOTAL	1,181	151	1,332
Analysis of Increase			
Necessary Pay.....		39	
Other Uncontrollable.....		7	
Program Funds.....		105	

ABSTRACT - The Smithsonian Tropical Research Institute (STRI) conducts advanced studies in ecology, behavior, and evolution of tropical organisms and manages related programs in the areas of education and conservation. The tropics contain the greatest diversity of life on this planet; as such they offer the biologist the best natural laboratory for studying the interrelationships of life on earth. Panama further offers its unique zoogeographic characteristics--a landbridge between the terrestrial life forms of the two continents and a barrier to the marine life of two oceans.

In FY 1976, four additional positions and increased funding of $105,000 are sought to meet the following requirements: (1) Research - a resident naturalist ($21,000) to be responsible for environmental monitoring and coordination of scientific activity on Barro Colorado Island; two positions, a biochemical population geneticist and a laboratory technician ($40,000) to continue the gradual development of the Institute as a primary center for tropical studies; and funds in the amount of $14,000 to fund increased support and travel expenses and (2) Buildings and Facilities Management - a janitor/guard position ($7,000) and an additional $23,000 to provide maintenance and protection for the newly occupied Tivoli building, fund associated moving costs, and cover inflationary cost increases. An additional requirement of $39,000 for necessary pay costs and $7,000 for utility costs is requested in the Uncontrollable Section.

PROGRAM - The Institute provides a base of operations and an intellectual center for advanced basic studies of ecology, behavior, and evolution in the tropics. Because of the diversity of tropical organisms and the complexity of their relationships, the tropics represent one of the most interesting but poorly understood biological regions of the world. Many of the developing nations and those with the most rapidly growing populations are within the tropics, and it is here that major environmental changes are likely to occur during the next decade. Understanding and properly managing tropical environments is essential to their preservation as well as the protection of living systems elsewhere in the world. For example, the destruction of suitable winter feeding sites in Central and South America will result in the extinction of migratory birds even if their summer breeding habitats are preserved in the United States.

STRI's research stations in Panama provide immediate access to tropical, terrestrial and marine environments. These include almost 9,000 acres of forest reserve on Barro Colorado Island and the adjacent peninsulas in Gatun Lake and a two-ocean marine research capability with laboratories on the coral reef and lagoon at Galeta Point on the Atlantic Coast, and the rocky reefs at Naos Island on the Pacific Coast. A small facility in Cali, Colombia provides access to high forest plateau in the Andes. The Institute's permanent scientific staff, as well as many visiting scientists and students, conduct research in these areas as well as in other parts of Central and South America, the Pacific, Asia, and Africa, where comparative studies are clarifying the distinctive ecological relationships of the tropics.

During FY 1975 the permanent scientific staff of STRI is 14, there are 10 long-term pre- and post-doctoral students associated with STRI, and it is anticipated that the facilities will be used for shorter periods by a total of 700 visitors from all over the world. In FY 1974, 70 seminars were held and 65 scientific papers were published in the world's leading scientific journals by staff and associates. In FY 1975 a number of books will be completed and published by the STRI staff including a volume on the ecology and archaeology of the central provinces of Panama and a critical volume on the behavior of new world primates.

One of the most important responsibilities of the Institute is the support of advanced training in tropical biology. Organized teaching efforts extend beyond graduate and post-doctoral training to college and secondary schools. In addition, informal training and docent-guided tours are also offered for the general public.

JUSTIFICATION OF $105,000 INCREASE:

Research - Barro Colorado Island, which is both an integral part of the Institution's Environmental Science Program and a research station used by hundreds of visiting scientists, is in need of day-to-day coordination of the scientific activities of the visiting and staff scientists. It is particularly important that someone be available to provide continuity to the research of visiting scientists. An amount of $21,000 is requested to hire a resident naturalist who will be responsible for environmental monitoring as well as the coordination of scientific activity.

One of the problems related to the study of tropical organisms is that of sorting out the differences in closely related populations and species. The subtleties of

tropical adaptations are often difficult to resolve with classical techniques of analyzing form and structure. In recent years techniques have been developed which enable biologists to analyze enzyme forms and structures and, consequently, detect subtle differences and responses in seemingly identical populations. While much research has been done on temperate organisms, there is little data on which to evaluate or compare responses of tropical organisms. An amount of $40,000 is requested to hire a biochemical population geneticist to conduct research in this area and a laboratory technician to analyze biological material and collect data for interpretation. Support funds of $2,000 for supplies and equipment also are requested.

The need for increased travel funds has intensified in the past year as a result of expanding research efforts and inflation. While Panama is the facilities and administrative base of the Institute, the research of most of the scientific staff is comparative, requiring field work in many places of the New World and Old World tropics. In addition, there are travel costs associated with various scientific meetings and conferences and lectures conducted by STRI scientists at U. S. universities. These trips have the dual benefits of keeping the scientists informed of new developments in their fields and of promoting interest in tropical research. An increase of $12,000 is requested to meet these travel expenses.

Buildings and Facilities Management - In FY 1976 renovation of the Tivoli building will be completed with funds requested in the Restoration and Renovation of Buildings account. Upon the relocation of administrative and support personnel to the building, the requirement for maintenance and protection will increase. Funds are requested to hire a janitor/guard ($7,000) and to finance moving costs and purchase necessary maintenance supplies ($9,000).

STRI buys more than one third of its supplies and equipment in the Republic of Panama. The wholesale price index for the Republic of Panama rose 31.5 percent in the latest quarter; the rise for the same period in the United States was 19.7 percent. An amount of $14,000 is requested to cover approximately half of STRI's inflationary costs other than utilities.

RADIATION BIOLOGY LABORATORY

1974 Actual.....$1,426,000
1975 Estimate.....$1,542,000
1976 Estimate.....$1,631,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	48	0	48
11 Personnel Compensation.....	744	25	769
12 Personnel Benefits.....	61	2	63
21 Travel & Trans. of Persons...	11	4	15
22 Transportation of Things.....	6	2	8
23 Rent. Comm. & Utilities.....	434	28	462
24 Printing and Reproduction....	13	3	16
25 Other Services.....	35	10	45
26 Supplies and Materials.....	86	10	96
31 Equipment.....	152	5	157
TOTAL	1,542	89	1,631
Analysis of Increase			
Necessary Pay.....		27	
Other Uncontrollable.....		28	
Program Funds.....		34	

ABSTRACT - The Radiation Biology Laboratory (RBL) studies the influences of environmental factors--light, temperature, humidity, and atmospheric content--on biological systems in order to help understand their growth and development. The marked increase in interest in environmental problems has led to many requests for the Laboratory's data. To continue this research at current levels, a support funds increase of $34,000 is required plus $28,000 for utility rate increases. These increases are due solely to inflationary costs of supplies, materials, utilities, and equipment. Necessary pay requirements for present staff amount to $27,000.

PROGRAM - Light is the key controlling environmental factor for development and growth of biological systems. Storage of solar radiation as chemical energy in photosynthesis is basic for all life on earth. The utilization of this energy is regulated by subtle changing signals of light quality, duration, and intensity. A primary objective of the Laboratory is to explain the influences of the various factors in the environment--light, temperature, humidity, and atmospheric content--on growth and development and to characterize the molecular mechanisms through which these signals operate.

This aim is accomplished by studying these environmental influences on plant growth and development in the Laboratory under controlled conditions using biochemical, biophysical, and physiological techniques and then verifying the importance of these processes in nature by monitoring the natural, dynamic environment. An example of spin-off value from these measurements is the collection of ultraviolet light data useful for assessing the potential biomedical threats of change in the ozone layer of the atmosphere. Such programs of research by their very nature are long-term and require the concerted team efforts of many scientific disciplines.

The research of the Laboratory consists of three principal areas: (1) regulatory biology, (2) environmental biology, and (3) carbon-14 dating. Since its inception in 1928, the Laboratory has pioneered research into the influences on growth of the color quality of visible and near visible light, such as ultraviolet. The present experimental program is of greater scope than in any other single laboratory in this country and perhaps in the world. The Laboratory has been credited with major contributions in the field of photobiology and several first achievements in action spectroscopy.

JUSTIFICATION OF $34,000 INCREASE (Research Support) - The requested additional funds are needed to maintain current programs at a no-growth level. The costs for chemicals used regularly from three major manufacturers and suppliers of chemicals and supplies have increased this year by an average of 35 percent, and for general laboratory supplies by 20 percent. This trend is not expected to subside. To maintain minimal adequate levels, an increase of $10,000 is required in other services, $10,000 for supplies and materials, and $5,000 for equipment.

Data from the remote stations must be transmitted to the Laboratory. In addition, to assure accurate calibration and continuous operation of these stations, staff must make site visits at least once per year. Sites are located in Barrow, Alaska; Panama; Tallahassee, Florida; and Jerusalem, Israel. To maintain these stations and analyze and produce research data requires an increase of $2,000 for transportation of things, $4,000 for travel, and $3,000 for printing and reproduction.

Utility costs continue to rise exponentially. Environmental growth rooms are lighted and powered electrically. Electric costs alone increased 44 percent last year, even though an effective program of energy reduction for the Laboratory as a whole was achieved. Funding of $28,000 to maintain current programs is included in the Uncontrollable section.

Major Accomplishments in FY 1974

Scanning radiometers, instruments for measuring and monitoring discrete bands of ultraviolet energy from the sun and sky, have been developed and constructed. Ultraviolet measurements using these instruments are of particular interest in the health sciences. There are, for instance, data which implicate ultraviolet fluctuations in the frequency of incidence of skin cancer. Three such monitoring stations are now operating. Two more will be completed by the end of the fiscal year. The resulting data are being published.

Another important factor in solar irradiance measurements is the primary standard to which all measurements are referred. A symposium was held at RBL this year, at which 23 international authorities presented papers on methods of evaluation and intercomparison. The resulting RBL publication is expected to become a reference standard in this field.

Blue light is known to initiate the biosynthesis of yellow pigments, such as the vitamin A precursor, B-carotene. The biochemical pathway for the control of synthesis of these vitamin precursors is being studied, and four new mutants that can produce yellow pigments in the dark have been induced by ultraviolet irradiation. These mutants are powerful tools in characterizing the biochemical pathways and should provide information which would allow control of the synthesis of these vitamin precursors.

OFFICE OF INTERNATIONAL AND ENVIRONMENTAL PROGRAMS

1974 Actual.....$910,000
1975 Estimate.....$571,000
1976 Estimate.....$586,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	25	0	25
11 Personnel Compensation.....	452	14	466
12 Personnel Benefits.....	39	1	40
21 Travel & Trans. of Persons...	13		13
23 Rent, Comm. and Utilities....	34		34
24 Printing and Reproduction	12		12
25 Other Services.....	13		13
26 Supplies and Materials.....	5		5
31 Equipment.....	3		3
TOTAL	571	15	586
Analysis of Increase			
Necessary Pay.....		15	
Program Funds.....		0	

ABSTRACT - The Office of International and Environmental Programs (OIEP) oversees the International Activities Program and the Center for Short-Lived Phenomena and coordinates research on the environment abroad. No program increase is sought for FY 1976. Necessary pay in the amount of $15,000 is sought for existing staff.

PROGRAM - Reorganizations implemented in FY 1974 resulted in the creation of the OIEP. The Office of Environmental Sciences, without the Oceanographic Sorting Centers in Washington and Tunis, was combined with the Office of International Activities. The Oceanographic Sorting Centers were placed in the National Museum of Natural History and

the International Environmental Program was placed directly under the Office of the Assistant Secretary for Science.

The newly established OIEP oversees the International Activities Program and the Center for Short-Lived Phenomena and, in addition, coordinates research on the environment abroad for improved understanding of natural systems. A four-year study of waterborne diseases in the Lower Mekong River has been completed. A single-year study of the postimpoundment ecological analysis of a reservoir on the Nam Ngum River and another reservoir on the Volta River (Ghana) will be completed during FY 1975. Similar ecological studies of two major lakes in Yugoslavia are still underway. In addition, OIEP cooperates with the Peace Corps in planning and staffing volunteers in environmental and natural resources programs in developing countries. Volunteers skilled in environmental and biological sciences are recruited for two-year assignments in projects operated by host governments or international organizations. Over 400 volunteers, selected from among the 2,000 applicants to this program, have been placed in environmental assignments in 45 countries. The program is supported under a contract with the Peace Corps.

The International Activities Program administers the Smithsonian Special Foreign Currency Program (SFCP) and the International Liaison Section. The SFCP supports museum programs, scientific and cultural research, and related educational activities in six countries where the United States owns local currencies in "excess" of its needs as determined by the Treasury Department. More than 230 institutions in 34 states and the District of Columbia have benefited from the Program, which in FY 1974 supported 170 projects involving approximately 300 American and 150 foreign investigators. An appropriation of $2.0 million "excess" foreign currency is requested for FY 1976. This amount includes $1.0 million for research projects and $1.0 million for the third of four annual contributions through UNESCO to Egypt for the preservation of the monuments at Philae.

The International Liaison Section has been created to meet the need for effective coordination of the Smithsonian's increasing international activities, especially those related to the Bicentennial. Responsibilities include coordination of Smithsonian activities abroad with the State Department, participation in Subcommittees for Education and Culture and for Science and Technology that form part of the newly established Bilateral Commissions between the United States and several countries in the Mideast, contact with foreign governments for research and travel permits, assistance to the Folklife Festival program for foreign performing arts groups, and coordination of requests for foreign exhibits.

The Center for Short-Lived Phenomena operates a global environmental alert network for rapid communication of scientific data on biological and geological environmental events of short duration to scientists and officials with monitoring responsibilities.

Included in the CSLP's program are: the International Student Alert Network which now includes more than 60,000 students in over 1,000 high schools and universities in the United States and in 18 foreign countries, and an International Pollution Alert Network which involves more than 800 professional environmental monitoring programs in more than 60 countries. The Center's reports make it possible for scientists to conduct research while short duration events are occurring. The first world directory of environmental monitoring organizations was compiled by the Center under a United Nations contract.

CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

1974 Actual..... $344,000
1975 Estimate..... $443,000
1976 Estimate..... $539,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	18	4	22
11 Personnel Compensation.....	303	74	377
12 Personnel Benefits.....	26	7	33
21 Travel & Trans. of Persons...	6		6
23 Rent, Comm. & Utilities.....	32		32
24 Printing and Reproduction....	2		2
25 Other Services.....	25	8	33
26 Supplies and Materials.....	34	5	39
31 Equipment.....	15	2	17
TOTAL	443	96	539
Analysis of Increase			
Necessary Pay.....		14	
Program Funds.....		82	

ABSTRACT - The Chesapeake Bay Center for Environmental Studies (CBCES) is a natural area for research in complex land-water relationships and for use in creating public awareness and understanding of ecological systems as they may be affected by economic and social change. The FY 1976 budget shows an increase of 4 positions and $82,000 to provide the following program and support needs: (1) Research - a scientific program coordinator ($40,000) to give unified direction to ecosystem and land use research; (2) Education and Public Orientation - an education assistant ($12,000) to conduct workshops, conferences and tours; and (3) Buildings and Facilities Management - a maintenance worker and a custodian ($20,000) and $10,000 for supplies, services and equipment for the care of the Center's property. An additional amount of $14,000 is needed for necessary pay.

PROGRAM - The Chesapeake Bay Center is a 2,500 acre area located on the Chesapeake Bay, seven miles south of Annapolis, Maryland, about equidistant from Baltimore and Washington. It was established in 1965 for the purpose of creating scientific and education programs in the environmental sciences leading to a more complete understanding of complex natural relationships and the proper balance of land-water uses as they relate to human health and welfare. The development of these programs was made possible by the acquisition (with non-appropriated funds) of a land-water unit large enough to include a full range of forests, marshes, fields, and agricultural areas. Taken together, these form the mosaic of land uses characteristic of the mid-Atlantic region since settlement. The area is ideal for study of the results of man's past and present activities as vital components of interacting physical and biological systems. Thus, the Center provides a living museum of contemporary and historical significance, a primary resource for teaching and research on complex living systems. It is the largest facility in the nation available for the study of land-water (estuarine) relationships.

The research program is being conducted in conjunction with Federal agencies and universities and is a long-term effort to understand the functioning of terrestrial and estuarine ecosystems. Current research is focused on the Rhode River and its watershed. Estimates are being made of the amounts of nitrogen and phosphorus received by Rhode River from rainfall, surface runoff, and the adjacent waters of Chesapeake

Bay. Measurements are also being made of the amount of bacterial and sediment loading to Rhode River from land runoff on over five square miles of watershed. The extent of nutrient uptake and sediment and bacterial trapping by estuarine marshes is also being measured. These contemporary studies are linked to an intensive analysis of land use changes which have occurred in Rhode River watershed since the time of first settlement. The objective of this research is to determine the effect of changing land use patterns on terrestrial and estuarine ecosystem processes.

Education programs are based on the Center's environmental research activities and are intended to serve youth and adult groups. Activities include workshops and conferences for a variety of citizen groups in order to provide information on the planning and management significance of regional ecosystem research. There are joint efforts with other academic and private institutions in promoting adult outdoor environmental education. The Center serves as a regional clearing house and implementation center for nationally significant outdoor biology education projects. It conducts regional school-tour programs and out-of-school environmental education experiences for children, and research and education training for high school and college students.

JUSTIFICATION OF $82,000 INCREASE - The Center carries out much of its work on short-term grants and contracts from government and private sources. Appropriated funds have been used to manage the facility and to assure the continuity of what must be long-range research studies.

Research - The CBCES is presently conducting a major project in ecosystem research focusing on the relationship between watershed land runoff and its impact on the estuarine environment. This is the largest such project presently being conducted on an estuarine system in the United States. Overall supervision and direction of this project is needed to ensure the close collaboration among participating scientists necessary for quantitative ecosystem analysis. For this function $40,000 is requested to fund a scientific program coordinator and provide a small amount of data processing support.

Education and Public Orientation - In FY 1975, a full-time education specialist was added to the Center's staff to supervise and coordinate public education programs. As a result, demands for adult workshops and programs and visits by metropolitan area elementary and secondary schools have substantially increased. Moreover, the new education building at the CBCES (constructed with non-appropriated funds) has made available indoor facilities for a wide variety of education activities. Currently, it is not possible to meet these demands and in calendar year 1974, the Center was forced to reject some 35 requests from elementary and secondary schools for tours and programs. To meet this need a full-time education assistant is requested ($12,000). This should enable a doubling of the Center's capability for conducting education programs and meet projected demands through FY 1976.

Facilities Support and Maintenance - Based on the projected use of the Center's new education building, a full-time custodian will be needed. Also, one additional position is required to serve in general maintenance of the Center's property and facilities and tend a series of stream weirs that have been constructed on the Center's property to measure and record five separate parameters of rainfall washing over the Rhode River watershed and carrying nutrients into the Chesapeake Bay. These two positions will cost $20,000. Supplies, materials, services, and equipment needed for the maintenance of buildings and other property require an additional $10,000.

NATIONAL AIR AND SPACE MUSEUM

1974 Actual.....$2,632,000
1975 Estimate.....$4,034,000
1976 Estimate.....$5,537,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	165	65	230
11 Personnel Compensation.....	2,151	453	2,604
12 Personnel Benefits.....	187	38	225
21 Travel & Trans. of Persons...	11	12	23
22 Transportation of Things.....	10		10
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction....	17		17
25 Other Services.....	1,112	865	1,977
26 Supplies and Materials.....	325	60	385
31 Equipment.....	211	75	286
TOTAL	4,034	1,503	5,537
Analysis of Increase			
Necessary Pay.....		73	
Program Funds.....		1,430	

ABSTRACT - The National Air and Space Museum (NASM) was created to memorialize the national development of aviation and space flight; collect, preserve, and display aeronautical and space flight artifacts of historical significance; and serve as a repository for documentary and artistic materials related to air and space. An increase of $1,430,000 and 65 positions is requested to provide the necessary manpower and other objects of expense to prepare exhibits and programs for the opening of the new NASM building on July 4, 1976. Specifically, these increases are: (1) Custodial staff - 57 positions ($315,000) and support funds ($45,000); (2) Presentations and Education - 3 positions ($49,000) and support funds ($55,000) to assist in the development and preparation of spacearium/planetarium shows; (3) Exhibits production - 4 positions ($45,000) and support funds ($862,000) to assist in the preparation and installation of exhibits; (4) Administration - 1 position ($9,000) to assist with the clerical workload; (5) Preservation and Restoration - Support funds ($50,000) to move artifacts from Silver Hill, Maryland, and place them in the new museum. Necessary pay in the amount of $73,000 is requested for existing staff.

PROGRAM - The new NASM building is expected to be a major feature of the Bicentennial celebration, dedicated to communicating the history, science, and technology of flight in ways understandable to the public, and to recognizing and celebrating the leadership role that America has played in the advance of air and space achievements.

The principal effort of the NASM will continue to be directed towards the opening of the new museum building on July 4, 1976. This building will embody 25 major exhibition galleries and 2 large presentation centers. Total exhibit and presentations space will be approximately 250,000 square feet.

The following list shows the 25 halls that are expected to be in the completed building. Titles are tentative but indicate the themes of the exhibits.

Major Exhibition Halls

Vertical Flight and Rotary Wing Flight
Air Transportation
Earliest Birds
Kitty Hawk Flyer
Index Exhibit
Large Space Vehicles
History and Technology of Space Flight
General Aviation
Exhibition Flight
Air Traffic Control and Navigation
Earth Flight Environment
Trophy Hall
Space Flight Environment
Life in the Universe
Satellites and Space Probes
Earthbound Benefits From Flight
Sea-Air Operations
Understanding Air and Space
Technology and Materials
World War II Aviation
Lighter Than Air
World War I Aviation
Significant Aircraft and Spacecraft
The X Airplanes
Flight to the Moon
Air and Space in the Arts

To date, five of the core exhibits have been completed and tested in the Arts and Industries Building. These prototype halls have featured advanced presentation techniques which have been extremely well received. A major objective of this prototype exhibit program has already been met, that is, the development of a superior exhibits design and production staff and the construction of a production facility at Silver Hill. Successful planetarium shows have been running in the 30-foot domed Experimentarium which was constructed to test programs and equipment and to develop a staff for the new Spacearium. All shows and equipment will be revised for incorporation into the 70-foot dome Spacearium with its more sophisticated, computerized star projector and supporting audio-visual equipment. A first film for the theater has been written and is now awaiting production.

The restoration and installation of the full-sized air and space craft now in storage at Silver Hill will continue to provide the artifacts needed for the new building exhibits. Of the approximately 60 aircraft that are planned to be exhibited in the new building, 35 are now ready with the remaining 25 in various stages of restoration. The percent completion for the various space artifacts planned to be exhibited is approximately the same.

JUSTIFICATION OF $1,430,000 INCREASE - FY 1976 marks the final period to complete the opening exhibits and presentations and ready the museum for the public. The detailed gallery designs and presentations produced in FY 1975 are to be fabricated and installed with FY 1976 funds. Complicated electromechanical and audio-visual equipment for exhibits and the planetarium must be installed, tested, and made operational. Programs must be developed for the theater and planetarium. The building must be made habitable. Aircraft and spacecraft, which have been restored over the past three years, must be moved from the Silver Hill facility to the building for placement in exhibit areas. Specifically the increase is requested for:

Exhibits Production - As planned, all 25 exhibition galleries will open to the public when the museum opens. Exhibit galleries are in design and production, each covering an important facet of the total history, science, and technology of flight. By the opening date, 40 to 50 percent of the space in the various galleries will contain long-term exhibit units, and the remaining space in the galleries will show educational interim installations such as labeled aircraft and spacecraft. In addition to new exhibit design and production in FY 1975, NASM will redesign 4 exhibit galleries that had been prototyped in temporary facilities for trial and evaluation. This redesign will make it possible to install these exhibitions in the new building, modified to reflect lessons learned during the trial runs. Additionally, eleven new exhibits are being researched and designed, using both staff and outside contracts. These exhibits will be fabricated and installed in the building during FY 1976.

Four additional exhibits personnel ($45,000) (four electronic technicians, two of whom have electromechanical backgrounds) will be required to assist in the design, installation, test and operation of a wide assortment of slide and motion picture projectors; tape decks; visitor participation units; electrical dioramas; special lighting effects; TV units; and other such complicated electronic systems found in modern museums. Funds ($850,000) are necessary for the supporting services, supplies, materials and equipment to construct and install permanent exhibitions in 5 of the 15 galleries that will contain long-term exhibits. This increase will provide NASM with the ability to open with approximately 50 percent of the permanent exhibits in place. Without it, only 30 percent of the museum's galleries will be complete. Travel funds ($12,000) are needed to oversee exhibits production.

Presentation and Education Division - Three personnel, an education and information specialist, a planetarium production specialist and a planetarium presentation specialist ($49,000) are required to work with the current staff in preparation and production of planetarium shows and the development of educational programs using the planetarium and theater facilities and other museum resources. Funds are also requested to purchase special equipment, supplies, and materials ($55,000).

Preservation and Restoration - The entire staff of the Preservation and Restoration Division will be involved in the moving and installing of major artifacts into the new building. Sixty-eight aircraft and seventy-five major space artifacts will be displayed to the public, either singly or as components of exhibit units. Seventy-five of these artifacts will be hung from the ceilings of the various exhibition halls. In addition, 4 missiles, Jupiter C, Vanguard, Scout, and Minuteman 3, will be placed upright in the Space Hall. Funding ($50,000) is necessary to provide special handling equipment, material and the temporary services of professional riggers to assist the NASM staff in moving and mounting these artifacts.

Building and Facilities Management - In FY 1976 the janitorial functions were decentralized and each museum was given the reponsibility and manpower to maintain its own facilities. NASM received a skeleton force and funds to support the staff for the last quarter of FY 1975 (during the period the NASM moves into the building). To supplement the present staff and make the building ready for the public, an additional 52 janitors and laborers and 5 supervisors are required plus funds to annualize the 25 positions authorized in FY 1975 for one quarter ($315,000) and funds ($45,000) for supporting supplies, materials and equipment.

Administration - An additional clerk-stenographer ($9,000) is required to assist with the increase in clerical tasks in the museum

CENTER FOR THE STUDY OF MAN

1974 Actual.....$293,000
1975 Estimate.....$322,000
1976 Estimate.....$385,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	11	1	12
11 Personnel Compensation.....	233	31	264
12 Personnel Benefits.....	20	3	23
21 Travel & Trans. of Persons...	7	12	19
23 Rent, Comm. & Utilities.....	3		3
24 Printing and Reproduction....	2		2
25 Other Services.....	51	17	68
26 Supplies and Materials.....	1		1
31 Equipment.....	5		5
TOTAL	322	63	385
Analysis of Increase			
Necessary Pay.....		14	
Program Funds.....		49	

ABSTRACT - The Center for the Study of Man (CSM) has several anthropological and human science programs: continued development of the Encyclopedia of North American Indians; sponsorship of an urgent anthropological program; coordination of international anthropological efforts on current social problems; conduct of an immigration and ethnic studies program; and an anthropological film study center. An increase of $49,000 and 1 position is requested for the following program needs: (1) support funds ($29,000) for Immigration and Ethnic Studies and (2) 1 position and $20,000 for the National Ethnographic Film Center and Archive. An amount of $14,000 is needed for necessary pay.

PROGRAM - The CSM coordinates research and development on a series of important anthropological programs. The American Indian Program is presently concerned primarily with the development of the 20 volume Encyclopedia of North American Indians to be published for the Bicentennial. It will contain 1,000 articles. Forty percent of the manuscripts are now complete and the development of design and specifications for printing is well along. Funds for the actual printing of the Encyclopedia are contained in the Bicentennial budget request.

Another aspect of the American Indian Program is the development of a system for providing scholarly educational materials concerning Indians to individuals, schools, and Indian communities. In addition, the Center helps to coordinate educational intercommunication among Indians themselves, with scholars, and with appropriate Government and private agencies.

As work on the Encyclopedia progresses, it becomes increasingly clear that there are dangerous gaps in the knowledge of North American Indian cultures. In particular, there is a pressing need to interview within the next few years the tribal elders who are anxious to fill in the record of their proud past. The Urgent Anthropology Program which identifies, publicizes, and finances, by means of small awards, needed research in geographical areas that are undergoing rapid environmental change as a result of urbanization, improved oommunications, better transportation, and other factors has been helpful in this respect. Its objective is to salvage and preserve information in selected rapidly changing areas before time and events erase our ability to understand the cultures that existed.

The American Indian program has focused particularly on bridging the gap between present-day Indians and their archeological past. Field research is being conducted in Louisiana, Mississippi, Texas, South Carolina, Georgia, Alabama, North Carolina, Arizona, Idaho, Washington, California, and South Dakota. Portions of the research which is producing chapters for the Encyclopedia are also relevant for closing the gap between past and present. For instance, a Pima Indian is carrying out a study of the history, language, songs, legends, and crafts of the Gila River Pima with funding support from the Center.

The Cross-Cultural Research Program is coordinating the efforts of numerous anthropologists and other human scientists in developing new, comparative information on population, environmental, and educational studies. Comparative research on world use of cannabis and alcohol has also been carried out.

The comparative Immigrant and Ethnic Studies Program is carrying out basic research in the United States, Canada, the circum-Caribbean area, and the Panama Canal Zone. It investigates the special conditions which stimulate immigration, assesses the contributions made by immigrants, and studies the effects of immigration on the source country and on the target country. Field research, archival research, and statistical methods are all used.

The Center has established a National Ethnographic Film Center and Archive in response to requests from a number of Federal agencies (National Science Foundation, National Endowment for the Humanities, National Institutes of Health, etc.) and from other concerned organizations and individuals. The purpose of this unit is to record, collect, and preserve the cultures of North American Indians and other peoples as recorded on film. Much of the film being collected is in great danger of destruction and the need for immediate action is clear. Initial funding for this program has been from outside sources.

JUSTIFICATION OF $49,000 INCREASE (Research):

A total of $29,000 is requested for the Research Institute on Immigration and Ethnic Studies. This money is needed for consultants, seminars, field research, and coordination of programs which the Institute is committed to in Washington, D.C., the Caribbean, and the Panama Canal Zone.

Anthropological film archives have been established as valuable national resources in a number of European countries, but there are as yet no archives or film collections in this country carrying out such a role. The Library of Congress Film Unit is confined to collecting and preserving films that have been copyrighted for commercial distribution. Since over ninety percent of all film taken by American anthropologists is not copyrighted, it therefore does not find its way into the LC archives. There is an urgent need for an archive to obtain and preserve the growing body of anthropological film in this country, much of which is being lost almost as surely as if it had never been taken. This is because the anthropologist-film maker typically exhausts his resources in making one or two short edited films out of all his footage, with a usual shooting ratio of one part used in an edited film to ten to fifteen parts unused, or out-take material, which is often just as valuable for the scientific record or educational purposes as whatever may go into an edited print. Currently, the anthropologist-film maker has no place to go for help in making research copies and in properly annotating his footage. As time goes by, master prints are cut up, film crews disband and memory fades. In this way enormous quantities of valuable footage rapidly deteriorate or are lost.

In making this request the Institution considers that it cannot be primarily responsible for field support (new filming) or duplication of research prints to be

deposited in the archive, both of which are necessary but costly operations. Rather, the Smithsonian views the principal objectives of the proposed archive and study center as follows:

--To bring together and preserve existing anthropological films and unedited footage, annotated and catalogued for maximum research and educational utility.

--To initiate, encourage and otherwise collaborate in the film documentation of naturally occurring behavior in disappearing cultures.

--To provide a study center for the research uses of anthropological film.

--To serve also as a resource for the interested general public and ethnic groups, such as American Indians, to cite one example, who are extremely interested in film records of their own past for educational purposes and for the small tribal museums now being established on many reservations.

A total of $20,000 is requested for the Anthropological Film Study Center. This money will be used to hire a Director for the Center.

NATIONAL ZOOLOGICAL PARK

1974 Actual.....$4,564,000
1975 Estimate.....$5,482,000
1976 Estimate.....$5,882,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	294	10	304
11 Personnel Compensation.....	3,922	257	4,179
12 Personnel Benefits.....	323	24	347
21 Travel & Trans. of Persons...	19	2	21
22 Transportation of Things.....	8	2	10
23 Rent, Comm. & Utilities.....	240	58	298
24 Printing and Reproduction....	16	0	16
25 Other Services.....	246	3	249
26 Supplies and Materials.....	554	34	588
31 Equipment.....	152	20	172
41 Grants.....	1		1
42 Insurance Claims & Indem.....	1		1
TOTAL	5,482	400	5,882
Analysis of Increase			
Necessary Pay.....		176	
Other Uncontrollable.....		44	
Program Funds.....		180	

ABSTRACT - The National Zoological Park (NZP) is located on 156 acres in Rock Creek Valley and manages another 3,000 acres near Front Royal, Virginia. The Zoo exhibits a large and varied animal collection; serves the information, education, and service needs of the public; and conducts programs of research, animal health, and conservation. NZP budget requirements for FY 1976 include an additional 10 positions and $180,000 to support current programs including: (1) Collection and Facilities Management - 4 animal keepers, 1 mechanic, and 1 exhibits specialist ($62,000) and support funds of $40,000 to place into service exhibit facilities now under construction; (2) Collections Management - $20,000 to keep pace with cost increases for animal food and care; and (3) Research and Conservation - 2 animal

keepers and 2 mechanics ($43,000) and support funds of $15,000 to sustain progress in breeding and research efforts. Further amounts of $176,000 for necessary pay and $44,000 for utility rate increases are requested in the Uncontrollable Section.

PROGRAM - In 1889, Congress established the National Zoological Park for the "advancement of science and the instruction and recreation of the people." To accomplish those purposes, the Zoo exhibits a broad variety of animals representing one of the most important collections of rare and endangered species in existence; maintains information, education, and visitor service programs for the public from all over the United States; and undertakes scientific research, including biomedical studies, for the increased understanding and healthful well-being of the animals.

The National Zoological Park is the Nation's Zoo:

--welcoming each year visitors in large numbers from every state. In 1974, visitors celebrated with Zoo staff the births of many rare and fascinating animals, including the first Indian Rhinoceros born in the Western Hemisphere. Educational programs and graphic displays enable each visitor to derive new understanding about animals of the collection and an awareness of issues relating to the interrelationships between man and animal as we share a world together.

--leading the way in enlightened collections management. The Zoo provides for each animal's physiological and psychological needs; preserves its gene pool through selective breeding efforts as the number of its kind in the wild disappears, sustains it in good health for a full and useful life demonstrating to man the character and worth of its own kind.

--sharing learning with the public, scholars, and other zoos. Basic research at the National Zoo is resulting in increased understanding of the behavior and survival strategies of diversified representatives of the animal kingdom. Biomedical studies have led to improved health of Zoo collections through early recognition and treatment of the illnesses and infirmities affecting exotic animals. The Zoo is an important resource of training for doctoral scholars observing healthy animals, and is an intern site for veterinary clinicians and pathologists who will eventually care for exotic animals in other American zoos.

--innovating strategies to aid the conservation of rare and endangered species. Efforts in 1975 include field research and development of a research and conservation center to permit pooling animals in partnership with other zoos and to provide space for more natural and successful breeding.

--developing prototype education programs for Zoo visitors and student groups.

The increasingly sensitive job of managing so complex and irreplaceable a world of animals calls on many talents and outlooks. Too often overlooked is the essential work that Zoo craftsmen perform--keeping the Zoo open, clean, inviting, and sightly. In FY 1975, training is underway to insure the continued availability of maintenance skills--electricians, carpenters, operating engineers, metalworkers, masons, painters, gardeners, and welders. Talented individuals in graphic arts and education have joined the Zoo staff to make the visitor's stay more enjoyable and illuminating. The animal keepers are receiving training so that their creative talents may keep pace with the needs of the collections. Responsive and able medical assistance is delivered by a capable staff. The curatorial and research staffs refine reproductive strategies and bring into planning new knowledge gained through research on-site and in the wild.

To continue to do the Zoo's job well and hopefully better is the goal that all of the Zoo staff members share. The Zoo's role has never been more important--to promote understanding and conservation of rare animals; to provide a wholesome, entertaining learning opportunity for each visitor; and a good home for animals of the collection.

JUSTIFICATION OF $180,000 INCREASE:

Collections and Facilities Management - In FY 1976, Zoo animals and visitors will benefit from improved exhibit facilities. Key steps in their necessary sequence within the approved Master Plan for the rebuilding of the Zoo will be realized. The renovated Monkey House will be in service throughout 1976. Upgrading of the Bird House Plaza and Elephant Yards will be completed in the first half of FY 1976. The major new Lion-Tiger Complex will be completed in the last quarter of FY 1976 and opened to the public during the transitional and intensely active Bicentennial period of July-September 1976. These are among the first of a series of long needed new structures bringing the National Zoo forward in its service to the visitors and to the animal collection. Further details on the Master Plan appear in the Construction section of this budget.

To place these new facilities into service, the Zoo must:

--selectively acquire animals, including Indian Lions (Panthera Leo indica) and a pair of Snow Leopards (Panthera uncia).

--defray the travel costs of locating and moving animals.

--feed all animals adequately for essential nutritional needs.

--buy supplies and equipment needed for the best possible care of an increasingly irreplaceable collection and expanded exhibit areas.

--buy display materials and manufacture exhibits useful for visitor appreciation of animal life in the wild and in the Zoo.

--meet the part-year costs of utilities and maintenance for the new structures (the complex heating and air-conditioning systems of the Lion-Tiger Complex and Monkey House for a full year's operation will require increased energy and support costs).

An amount of $40,000 is sought for these purposes.

Four animal keepers will care for the revised and elaborated animal collection. An exhibit specialist will produce in-cage environments and true-to-life displays that are educationally useful to Zoo visitors and encourage natural behavior on the part of the animals. A heating, refrigeration and air-conditioning mechanic will tend the complex mechanical systems added for the well being of Zoo animals and comfort of visitors. These additional staff will cost $62,000.

Care and Management of the Collection - The National Zoo's collection in large measure must sustain itself. The Zoo is leading the way toward becoming a producer and not a consumer of animals. Since 1972, mammal births have not increased because of space shortages but the survival of newborn animals has increased from 67 to 75 percent. Bird hatchings doubled over the same span. Reptile and amphibian hatchings tripled (from 33 to 105) and the survival rate increased to 90 percent.

Such hard won success has not been accidental but has resulted from the efforts of knowledgeable curators, keepers, and health specialists. The Zoo needs to keep pace with the increasing needs for new medicines and diagnostic aids that will allow delivery of the best and timeliest treatment possible. The Zoo must meet the nutritional needs of the collection's animals. The Zoo cannot defer, delay, or avoid the costs of feeding the animals. Food costs continue to skyrocket. Even should inflationary rates begin to slacken, absolute dollar outlays for food will increase. A further $20,000 is requested for these purposes.

Conservation and Research - The National Zoo emphasizes research and conservation efforts in order to increase man's understanding of conditions that are essential for the preservation of rare and endangered species.

Ample space for animals is being developed near Front Royal, Virginia to establish conditions for successful breeding in collaboration with other American zoos. The area also serves as an additional food source to satisfy the increasingly special and costly nutritional requisites of exotic animals. Instead of bringing hay from the Dakotas, the precise trace elements needed exist in hay fields at Front Royal. To use those unique and long-range opportunities, the Zoo must add two animal keepers, a farm equipment operator, and a plumber ($43,000).

The Zoo must replace obsolete farm equipment, lime and fertilize fields, and maintain barns and other buildings. The continued advancement of innovative and productive research into general and reproductive behavior necessitates that the Zoo complete field studies. One focus of Zoo research is vertebrate and invertebrate communications. To keep this productive effort underway, depreciated and undependable equipment must be replaced. These needs will require an additional $15,000.

OFFICE OF THE ASSISTANT SECRETARY FOR HISTORY AND ART

1974 Actual..... $242,000
1975 Estimate..... $257,000
1976 Estimate..... $267,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	11	0	11
11 Personnel Compensation.....	231	9	240
12 Personnel Benefits.....	13	1	14
21 Travel & Trans. of Persons...	4		4
25 Other Services.....	4		4
26 Supplies and Materials.....	4		4
31 Equipment.....	1		1
TOTAL	257	10	267
Analysis of Increase			
Necessary Pay.....		10	
Program Funds.....		0	

ABSTRACT - The Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing, and reviewing the progress of Smithsonian history and art programs. In addition, this office oversees the planing and coordination of the Smithsonian's Bicentennial programs and projects. Also included under this heading are the American Studies program, the Joseph Henry Papers project, and the Art Quarterly. No program increase is sought for FY 1976. An amount of $10,000 is requested for necessary pay.

PROGRAM - I. Immediate Office: With a base of four positions and $122,000, the Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing, coordinating, and reviewing the progress of the programs of the Smithsonian history and art bureaus and offices. In addition, this office oversees the planning and coordination of the Smithsonian's Bicentennial programs and projects. The bureaus and offices reporting directly to the Assistant Secretary for History and Art are the Archives of American Art, Cooper-Hewitt Museum of Decorative Arts and Design, Freer Gallery of Art, Hillwood, Hirshhorn Museum and Sculpture Garden, National Collection of Fine Arts, National Museum of History and Technology, National Portrait Gallery, Office of Academic Studies, Office of American Studies, the Joseph Henry Papers, and the Art Quarterly.

II. Other Central History and Art Activities: The remainder of the funding identified for this office, seven positions and $145,000, supports the American Studies program, the Joseph Henry Papers project and, beginning in 1976, the Art Quarterly. The Office of American Studies organizes and conducts a formal program of graduate education in the material aspects of American civilization, and participates in the overall program of historical, archaeological, and architectural history research at St. Mary's City, Maryland, as funded by the State of Maryland, National Endowment for the Humanities, Rockefeller Foundation, and other foundations. The Editor of the Joseph Henry Papers and his staff have been gathering and preparing for publication the manuscripts of Joseph Henry(1797-1878), the pioneer American physicist and first Secretary of the Smithsonian Institution. Volume one of a multivolume set was published in December 1972. Volume two will be sent to the Government Printing Office early this year for publication in FY 1976. These and subsequent volumes are to be included in the documentary publications program of the National Historical Publications Commission. The Art Quarterly, probably the best and most important scholarly journal in its field in this country, will be published beginning this year by the Smithsonian Institution. Previously published by the Detroit Institute of Arts, the Quarterly exhibits a commitment to art historical scholarship of the highest quality and will lend additional strength to the public offerings of the Smithsonian's program in the arts. Through various economies and a minor reorganization of staffing patterns, this new activity will require no increase in Federal funding in FY 1976.

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

1974 Actual.....$4,333,000
1975 Estimate.....$5,139,000
1976 Estimate.....$5,395,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	259	7	266
11 Personnel Compensation.....	4,229	192	4,421
12 Personnel Benefits.....	362	16	378
21 Travel & Trans. of Persons...	34	1	35
23 Rent, Comm. & Utilities.....	20		20
24 Printing and Reproduction....	50	15	65
25 Other Services.....	236	26	262
26 Supplies and Materials.....	100	4	104
31 Equipment.....	108	2	110
TOTAL	5,139	256	5,395
Analysis of Increase			
Necessary Pay.....		136	
Program Funds.....		120	

ABSTRACT - The National Museum of History and Technology (NMHT) is the repository of the collections documenting the historical and technological achievements of the American people. It has an active research and publication program and its exhibits receive more visitors than any other Museum in the world. The FY 1976 budget requests an additional 7 positions and $120,000 for the following purposes: (1) Education and Public Orientation - 2 education specialists ($25,000) and $45,000 for program development and implementation to provide improved tour, orientation, and other information services to museum visitors and (2) Buildings and Facilities Management - 5 custodial positions ($47,000) and $3,000 of support to maintain building cleanliness standards. An additional amount of $136,000 is required for necessary pay for existing staff.

PROGRAM - NMHT occupies a unique position among the great museums of the world. As the repository of the national collections documenting the historical and technological achievements of the American people, the Museum has responsibility for over 16,000,000 objects related to all facets of the American experience. Each of these objects must receive the highest level of professional care and preservation and must be stored and exhibited using the best techniques available.

Since opening in 1964, the NMHT has provided a variety and richness of public exhibits seen by over 60,000,000 visitors. The Museum annually receives more visitors than any other museum in the world. As the most visited museum in the world, it will be host to almost 7,000,000 visitors during FY 1975. It is anticipated that this annual attendance figure will total more than 12,000,000 by the Bicentennial year and continue at a high level.

As a center for the scholarly study of the history of American material culture and the history of science and technology, this Museum continues to support and encourage basic research and publication in many subject fields, ranging from early exploration to studies of contemporary American culture.

In FY 1975, the exhibition "Suiting Everyone," demonstrating the democratization of clothing in America, was opened with many favorable notices. Also opened were the small exhibit "California" and the temporary exhibits "The Madrid Manuscripts of Leonardo da Vinci," featuring the newly discovered Leonardo manuscripts which have never before left Spain, "Steuben, Seventy Years of American Glass," and "Lead and Zinc Mining Scenes of the Past." "We the People," an exhibition focusing upon the distinctive political process in the United States, will also open in the latter part of FY 1975. The major exhibit effort of the Museum, as well as a major portion of the energy of the entire staff, has been applied to the two very large Bicentennial exhibitions "A Nation of Nations" and, in the Arts and Industries Building, "1876: A Centennial Exhibit." In addition, progress is being made upon "Two Hundred Years of American Banking." This year has seen not only a concentration upon exhibit production, but also a rising investment of resources and time in collections management, publications, and education and public information.

JUSTIFICATION OF $120,000 INCREASE:

Education and Public Orientation - The anticipated increase in visitors during the Bicentennial years and thereafter will require special provisions for their accommodation. Present facilities for public information and education are already being utilized to their capacity. It is planned that by the addition of staff and the development of self-guided tour and orientation film and slide programs these needs can be fulfilled. Among the needs foreseen are special facilities for foreign speaking visitors, who are expected in considerable numbers, and facilities for the handicapped. Special accommodation will have to be provided also for the greatly increased number of school tours coming from all over the country and outside the United States, as well as from local schools.

An orientation program is already under planning and will be ready for implementation as soon as funding is in hand. Provisions are being made for group orientation films which will identify the subject interests and exhibits of the museum, and deal with particular aspects of American civilization as illustrated in the public exhibits. Because of the great crowds expected, other orientation facilities are being developed, in the form of rear projection slide presentations in untravelled bays of the public areas. In addition, recruitment is in progress for an education specialist to develop programs and facilities for the handicapped. Plans have been made to use senior students from local institutions for the handicapped to serve as volunteer docents in the museum, for which service they would receive curriculum credit in their institutions.

The stepped-up public orientation and education program proposed for FY 1976 will require an audio-visual specialist, who will develop scripts in cooperation with the Museum staff for orientation films and slide presentations for the general public, and

a coordinator of special education programs to schedule public and special group tours, supervise a volunteer docent program, and develop specialized tour brochures. These two new positions will cost $25,000. Other object class funds in the amount of $45,000 will be used for consultants in communication media and special education to provide advice on museum traffic control and orientation development; equipment and supplies to maintain the program, including video tape equipment and other educational devices; the production and installation of orientation films and slide programs developed by Museum staff; and the publication of orientation materials for visitors, including brochures for the handicapped and self-guided tours for school groups.

Buildings and Facilities Management - Faced by consistently high levels of visitor attendance the Museum's FY 1975 custodial staff of 47 is already hard pressed to keep the public areas of the building satisfactorily clean. A survey of building requirements has shown a need for about 65 such positions. Much staff overtime at premium pay is required to maintain minimum upkeep standards. Furthermore, it is estimated that public use of NMHT will almost double in 1976 making this Museum's annual attendance three to four times larger than any other museum in the world. It is requested that 5 additional custodial positions ($47,000) with $3,000 of support funds be provided to relieve partially this situation.

NATIONAL COLLECTION OF FINE ARTS

1974 Actual..... $1,778,000
1975 Estimate..... $2,074,000
1976 Estimate..... $2,247,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	100	3	103
11 Personnel Compensation.....	1,403	91	1,494
12 Personnel Benefits.....	125	8	133
21 Travel & Trans. of Persons...	20		20
22 Transportation of Things.....	73		73
23 Rent, Comm. & Utilities.....	9		9
24 Printing and Reproduction....	52		52
25 Other Services.....	221		221
26 Supplies and Materials.....	64	24	88
31 Equipment.....	87	50	137
41 Grants.....	20		20
TOTAL	2,074	173	2,247
Analysis of Increase			
Necessary Pay.....		69	
Program Funds.....		104	

ABSTRACT - The National Collection of Fine Arts (NCFA), the oldest national collection of art, is devoted to all aspects of American art, past and present, and maintains an active program of exhibition, publication, research, and conservation in the field. In FY 1976, three additional positions and $104,000 are requested to meet the following requirements: (1) Collections Acquisitions - funding of $50,000 to maintain a minimum acquisition program necessary to establish fully representative collections and (2) Buildings and Facilities Management - two laborers and a painter-helper ($30,000) and an amount of $24,000 for custodial and maintenance supplies and materials to clean and maintain adequately NCFA facilities. Necessary pay funds of $69,000 are sought.

PROGRAM - This major collection of American art, the origins of which go back to the 1830's, was uncatalogued and ill-housed until the present facility was opened in the former Patent Office in 1968. The growing collection of some 17,000 works is now

registered on computer and arranged, either in carefully planned galleries or in systematic storage, so that every work is available for public pleasure or scholarly study. About 1,700 works are on loan to public offices in the Washington area. Exhibitions are presented in the United States and abroad, and an active program of education is maintained for the schools and the general public.

In FY 1975, seventeen new exhibitions were presented by the NCFA. Of these, three were cooperative efforts with other institutions and fourteen were designed and produced by the museum. These included "American Art in the Barbizon Mood," "Man Made Mobile: The Western Saddle" (at the Renwick Gallery), "Academy: The Academic Tradition in American Art" and smaller exhibitions featuring one artist, such as Chaim Gross and Ilya Bolotowsky. Exhibitions were accompanied by authoritative publications prepared by the museum. Some eighteen separate publications were issued. All galleries devoted to contemporary art were reinstalled, and two galleries formerly devoted to borrowed works of Winslow Homer were installed with paintings and sculpture from the museum's collection. The two galleries devoted to landscape painting were reinstalled. In addition to the above, NCFA's Office of Exhibitions Abroad had a total of eight exhibitions circulating outside the United States.

The very active education program was expanded to offer further activities for school children and the public. Some 17,700 public school children attended sessions within the museum, and many others were reached in the schools themselves. This department also supervised fifty junior and senior high school students who participated in a junior intern program and seventeen college students who worked in a similar program. Thirty-eight museum interns were introduced to museum practices through on-the-job training.

JUSTIFICATION OF $104,000 INCREASE:

Collections Acquisition - The National Collection of Fine Arts is, aside from its other functions, a museum of record. Its permanent collection strives to represent a cross section of American art of all periods and types, and special attention has been given to those aspects of art that might otherwise be overlooked in the changing fashions in taste. The effort has been to represent each significant American artist by a group of studies, as well as completed works, in order to record both the artist's creative procedure and his ultimate achievement. *Care has been taken to concentrate particularly on artists not already well represented in other national collections.* In the past year the museum purchased, among other works, paintings by excellent but little-known American painters working in Italy in the mid-nineteenth century (Walter Gould, George Loring Brown, William Carlton), works of two "self-taught" mid-western painters of the last century (Walter Griswold, Charles Brickey), a painting by the rarely represented painter and sculptor William Rimmer, and representative works of young contemporary artists. Most accessions come by gift - about 900 works a year including graphic works and studies - but if the proper historical and aesthetic balance is to be maintained and the collection is to be of service to future generations, a judicious program of purchase must complement the carefully screened donations. Because of rising costs in all areas of the museum's activities, it has been increasingly difficult to maintain the necessary minimum acquisition program. Major works, priced on the market today from $150,000 and up cannot be considered for purchase on NCFA's present acquisitions budget of $50,000, or even on the proposed budget of $100,000; nevertheless, it is important to acquire such necessary works as can be afforded whenever possible. An increase of $50,000 is requested simply to keep the acquisition program current.

Buildings and Facilities Management - The NCFA building management staff maintains its portion of the Fine Arts and Portrait Galleries building, the Renwick Gallery, and the Barney House. At the present time, the staff includes only two laborers for all three buildings and these laborers must also perform as supplementary custodial helpers. In order to be responsive to fifteen departments and offices and to the needs of the three buildings involved, the addition of two new laborers and a painter-helper ($30,000) is requested. The painter-helper is especially important because the Fine Arts and Portrait Galleries building and the Renwick Gallery have been open to the public for six and three years respectively, and continual painting refurbishment is now necessary in order to

maintain the visual standards and preventive maintenance programs of both museums. NCFA further requests $24,000 for building management supplies and materials to operate at an acceptable level. With higher visitor levels anticipated during the Bicentennial and thereafter, these necessary support activities must be provided for adequately.

NATIONAL PORTRAIT GALLERY

1974 Actual.....$1,246,000
1975 Estimate.....$1,544,000
1976 Estimate.....$1,686,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	71	3	74
11 Personnel Compensation.....	1,015	62	1,077
12 Personnel Benefits.....	89	6	95
21 Travel & Trans. of Persons.....	16	3	19
22 Transportation of Things.....	14		14
23 Rent, Comm. & Utilities.....	8		8
24 Printing and Reproduction.....	2		2
25 Other Services.....	121	4	125
26 Supplies and Materials.....	57	10	67
31 Equipment.....	217	57	274
42 Insurance Claims & Indemnities.	5		5
TOTAL	1,544	142	1,686
Analysis of Increase			
Necessary Pay.....		38	
Program Funds.....		104	

ABSTRACT - The National Portrait Gallery (NPG) was established in 1962 as a free public museum for the exhibition and study of portraits depicting men and women who have made significant contributions to the history, development, and culture of the people of the United States. In FY 1976 an increase of 3 positions and $104,000 is requested to meet the following program requirements: (1) Collections Acquisitions - funding of $50,000 to assist the Gallery in acquiring the collections necessary to fulfill its assigned responsibilities and (2) Buildings and Facilities Management - an additional $54,000 to provide an electrician's helper, two janitors, and materials and services necessary to support Gallery operations and to maintain the historic building housing the Gallery in view of significantly increasing attendance, especially during the Bicentennial celebration and following the opening of Metro. An increase of $38,000 in necessary pay is also requested.

PROGRAM - The National Portrait Gallery is the only national museum of American history that tells the history of the United States primarily in terms of the men and women who made that history. The portraits of these men and women are crucial documents of historical evidence and bear strong witness to the roles these people played in the American experience.

The Gallery's activities include: (1) the expansion and care of its collections; (2) public education through the exhibition of the permanent collection and specially organized temporary exhibitions; (3) the preparation and national distribution of scholarly and popular publications related to these exhibitions; and (4) the compilation of a definitive catalogue of American portraits, constituting a unique information resource in the areas of American history and biography, art, and iconography.

Attendance at the Fine Arts and Portrait Galleries during FY 1974 was in excess of 329,000, an increase of 30 percent over the previous year. In addition, three times as many young people and adults were served by the Gallery's education department during FY 1974 as in FY 1973, (33,000 versus 11,000). These trends have continued in the current year.

One hundred eleven portraits were added to the collection in FY 1974 and 1975. Sixty-six were acquired by purchase, including the only known life portrait of Frederick Augustus Muhlenberg, the first Speaker of the House of Representatives; John Trumbull's portrait of John Jay; a full-length cabinet-size portrait of John Marshall; a portrait of Dolley Madison; and busts of Abraham Lincoln and of Ralph Waldo Emerson.

Among the gifts were portraits of Richard Henry Lee by Charles Willson Peale, of Gouverneur Morris by James Sharples, William Lloyd Garrison by Anne Whitney (a plaster bust), and Andrew Carnegie--all the gifts of descendents. In addition, Mr. and Mrs. Paul Mellon presented a magnificent collection of 761 portraits engraved by C.B.J.F. de Saint Memin depicting important Americans from all walks of life, including Thomas Jefferson, Meriwether Lewis and William Clark, Paul Revere, Oliver Hazard Perry, and Mother Seton.

From June 14th to November 17th the Gallery presented the Nation's first Bicentennial exhibition entitled, "In the Minds and Hearts of the People: Prologue to the American Revolution, 1760-1774", consisting of 65 paintings and over 250 associative objects borrowed from collections in the United States and abroad. A second major exhibition, "American Self-Portraits" on view from February 1 to March 15, 1974, contained 109 paintings by American artists from colonial times to the present. Single-room exhibitions were installed with the Gallery's Saint Memin collection and a selection of portraits and letters of American artists from the holdings of the Archives of American Art, entitled "From Reliable Sources". In addition, several small exhibitions featuring portraits of selected individuals were organized.

With a goal of establishing a definitive collection of prints of notable Americans, the Gallery hired an assistant curator to organize and expand its holdings of 38,000 portraits in this medium.

In September, assisted by a grant from the National Endowment for the Humanities, the Gallery began a multi-year effort to publish in micro-film and selected letter press editions the papers of Charles Willson Peale, the American artist and scientist who was one of the most notable contributors to the early cultural history of the nation.

JUSTIFICATION OF $104,000 INCREASE:

Collections Acquisition - In FY 1976, the Gallery is requesting additional funding of $50,000 to increase its budget for acquisitions. The permanent collection of the Gallery presently consists of only 748 portraits, of which 439 were acquired by gift. During the past three years the acquisitions budget has averaged $185,000, which has not been sufficient to add all the portraits not available by gift that the NPG Commission deemed desirable. To redirect funds from other areas would seriously detract from the Gallery's essential research, publication, exhibition, and educational programs. A large number of significant portraits still remain in private hands. Although some of these will surely come to the Gallery as gifts, many will have to be acquired by purchase. It is critical that sufficient financial resources be available when such occasions arise lest portraits of those Americans who must be represented in the national collection find a permanent home elsewhere.

Buildings and Facilities Management - The balance of the request is for staff and materials necessary to operate the historic building housing the Gallery. During FY 1974 and 1975 the Gallery has been preparing for the first public use of areas on the first and third floors of the building, adding 10,000 square feet of exhibition space. Two janitors are required to help maintain these areas on a seven-day a week basis and to accommodate the increased number of visitors expected during the Bicentennial celebration and following the opening of Metro. In addition, an electrician's helper is required to assist with the complex relighting necessary with each changing exhibit

(including meeting the special lighting requirements for a variety of associative materials which enhance exhibitions of portraiture); to support lectures, slide presentations and other special events; and to keep the electrical systems of the building in peak condition. The cost of these 3 positions is $30,000. An additional amount of $24,000 is required to purchase custodial materials in view of both increasing use of the building and inflated costs, and to purchase electrical supplies, paint, building materials, and shop tools and equipment so that the mechanical staff can maintain the building and fully support the expanded activities of the Gallery. A properly supplied staff can provide mechanical and custodial support for the Gallery at a considerable savings over the cost of contracting for such services.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

1974 Actual.....$1,326,000
1975 Estimate.....$1,557,000
1976 Estimate.....$1,625,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	83	0	83
11 Personnel Compensation.....	926	120	1,046
12 Personnel Benefits.....	80	10	90
21 Travel & Trans. of Persons...	11	7	18
22 Transportation of Things.....	10	-5	5
23 Rent, Comm. & Utilities.....	13	-1	12
24 Printing and Reproduction....	30	10	40
25 Other Services.....	207	18	225
26 Supplies and Materials.....	48	6	54
31 Equipment.....	230	-100	130
41 Grants.....	2	3	5
TOTAL	1,557	68	1,625
Analysis of Increase			
Necessary Pay.....		44	
Program Funds.....		24	

ABSTRACT - Since its opening in October 1974, the Hirshhorn Museum and Sculpture Garden (HMSG) is maintaining a full and balanced program of exhibitions, educational activities, research, curatorial and technical support including conservation, registration, and publication. Visitation for the first three months totaled over 640,000 persons. The FY 1976 budget requires an additional $24,000 for buildings and facilities management services and supplies and $44,000 for necessary pay for the present staff.

PROGRAM - The HMSG houses a magnificent gift to the Nation of outstanding modern paintings and sculpture. While the Hirshhorn collection forms the strong core of the Museum's holdings, a continuing program of new acquisitions by gift and purchase is being pursued. In addition, a lively program of temporary exhibitions utilizing loaned materials will enhance the breadth and depth of the Museum's offerings to the viewing public. For scholars, students, museum professionals, teachers, researchers, and art publishers, the HMSG will continue to be a major source of documentation and reference in the field of modern art.

After extensive planning and implementation, a full range of museum activities, including curatorial, conservation, registration, exhibitions, and loan activities were made available to the public immediately upon the Museum's opening on October 4, 1974. Through December over 640,000 persons visited the Museum and its Sculpture Garden. Estimated public service statistics are shown in the following table:

	Estimated FY 1975 (Oct-June)	Estimated FY 1976
Museum Attendance	1,200,000	1,800,000
Docent Tours Conducted	1,080	1,600
Attendance	28,800	40,000
Number of Lectures & Film Showings	176	264
Attendance	17,600	33,000
Number of Concerts (In coordination with Division of Performing Arts)	4	8
Major Exhibitions Scheduled	1	5
Major Exhibitions in Preparation	5	8

JUSTIFICATION OF $24,000 INCREASE (Buildings and Facilities Management) - The increase of $24,000 in program funds is for supplies and materials $6,000 and other contract services $18,000. These funds cover contract services for cleaning and caring for carpets; regular cleaning of interior court windows; and lumber and paint supplies for carpentry and paint shop, essential for building repair and maintenance. The base for these activities in FY 1975, when the Museum was open to the public for only nine months, was $28,000. Rising prices and higher annual costs as a result of heavy public use of the Museum justify this requested increase. Included within the overall object class distribution are funding adjustments reflecting: the annualization of costs of approved additional FY 1975 positions funded on a part-year basis in that year; additional travel requirements associated with the acquisition of art by gift or purchase and the development of loan and other exhibitions; and the anticipated higher costs of printing catalogues and other publications.

FREER GALLERY OF ART

1974 Actual.....$274,000
1975 Estimate.....$410,000
1976 Estimate.....$458,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions	27	1	28
11 Personnel Compensation	343	24	367
12 Personnel Benefits	30	2	32
24 Printing and Reproduction	1		1
25 Other Services	15		15
26 Supplies and Materials	15	6	21
31 Equipment	6	16	22
TOTAL	410	48	458
Analysis of Increase			
Necessary Pay		15	
Program Funds		33	

ABSTRACT - The Freer Gallery of Art has a continuing program to search for and acquire Far and Near Eastern works of art of the highest quality and to conserve, study, and display these objects as keys to understanding the civilizations that produced them. For FY 1976 an additional 1 position and $33,000 will be applied as follows: (1) Conservation - $10,000 to purchase equipment for the study and preservation of art objects; (2) Collections Management and Exhibition - $12,000 for supplies and equipment for the storage and exhibition of objects; and (3) General Administration - $11,000 for a secretary and a temporary typist to meet a growing workload. An amount of $15,000 is requested for necessary pay for current staff.

PROGRAM - The Freer Gallery of Art houses one of the world's most distinguished collections of Near and Far Eastern art. Included in the collections are over 12,000 works of art from China, Japan, Korea, India, and the Near East. The collection covers paintings, sculptures, and other objects in stone, wood, lacquer, jade, pottery, porcelain, bronze, gold, and silver. Items not currently on exhibition and the library of 40,000 volumes are available to students and scholars and are used extensively.

Since the founding of the Freer Gallery, its goal has been to promote greater understanding of the cultures of the Near and the Far East through programs of research, exhibition, and education. The importance of that goal has assumed special significance during the past few years when cultural exchange between the United States and the countries of the Near and the Far East has greatly expanded.

The resumption of travel to the People's Republic of China and the opening of the Chinese Archaeological Exhibition in Washington, D. C. have resulted in an extraordinary reawakening of interest in Chinese culture. Near Eastern cultures are also receiving renewed attention. There has been a corresponding increase in requests for assistance from scholars, both at home and abroad, for docent service, for lectures, and for general information. The growing number of programs in the Freer auditorium necessitated the installation of new slide projectors and a completely new sound system. In addition, a new series of regularly scheduled Gallery tours has been introduced to supplement those tours made by appointment. These actions will continue to benefit visitors to the Gallery, especially the large numbers of visitors anticipated during the Bicentennial year.

A special Bicentennial exhibition, The Arts of Asia, scheduled to open in December, 1975, will focus on 18th century artifacts from the Near and the Far East. A second major exhibition, The Arts of the Arab World, will open in May, 1975. Many items included in these exhibitions have never been shown; all have been thoroughly examined by staff members of the Freer technical laboratory.

Several pieces of essential equipment have been installed in the technical laboratory. The most extensive addition was the specially constructed x-ray chamber that expedites and enlarges the research capacities of the laboratory. The x-ray chamber complements the activities of the regular photographic laboratory, which continues to provide photographs and slides of objects in the collection.

JUSTIFICATION OF $33,000 INCREASE:

Conservation - The technical laboratory is the first major installation of its kind in the Smithsonian complex. With expansion of public awareness of Gallery facilities and interest in the areas covered by the collection, the demands on the laboratory have grown. There are many pieces of equipment urgently needed.

--A 35mm camera is needed for photomicrography through a microscope acquired in FY 1973. The microscope is used for the investigation of the materials used in works of art and their deterioration, thus assisting the Gallery in carrying out its charge of protecting and doing research on the collection. Rapid and easy production of slides for research, educational, and training purposes would be possible.

--The laboratory needs a special, low voltage x-ray unit to study ceramics, lacquer work, wood sculptures, paper, and silk. These would include oriental paintings, manuscripts, and prints; and etchings, lithographs, drawings, and other works in the collection of American art. The laboratory does not currently have the ability to radiograph such items satisfactorily.

--The Gallery has a very sizeable collection of Whistler, Whistleriana, and other graphics that are much in need of treatment. A program has been launched to put all of these graphics into satisfactory condition, especially in view of the Bicentennial and plans for a major exhibition of American art from the collection in the Freer Gallery. A washing tank is necessary for such treatment.

--Conservation treatment of many objects requires continued immersion of the object in water or other liquid controlled to a particular temperature. A temperature control unit is required.

An amount of $10,000 is required for this conservation equipment.

Collections Management and Exhibition - To continue the program of Gallery maintenance and exhibition, it is necessary to purchase glass, hardware, lumber, and other equipment to be used in the construction of cases for exhibition and storage of the collection. As the collection grows the Freer Gallery of Art has the responsibility to see that objects are cared for and properly housed and exhibited. Prices on all such materials are rising. An amount of $12,000 is required.

General Administration - The administrative workload has expanded tremendously in the past several years and continues to grow. This has been brought on by the growth of public interest in art, and more specifically in the areas encompassed by the Gallery's collections. With the coming of the Bicentennial year and the increased utilization of all Gallery facilities, it is urgent that a secretary be provided for the administrative officer. A temporary clerk-typist also will be needed in the summer months of peak public visitation and inquiry brought on by the anticipated influx of visitors during the Bicentennial. These two new jobs will cost $11,000.

ARCHIVES OF AMERICAN ART

1974 Actual..... $238,000
1975 Estimate..... $294,000
1976 Estimate..... $337,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	12	4	16
11 Personnel Compensation.....	219	32	251
12 Personnel Benefits.....	19	2	21
21 Travel & Trans. of Persons..	3	2	5
22 Transportation of Things....	5		5
23 Rent, Comm.& Utilities.....	24	7	31
24 Printing and Reproduction...	12		12
25 Other Services.....	4		4
26 Supplies and Materials.....	4		4
31 Equipment.....	4		4
TOTAL	294	43	337

Analysis of Increase	
Necessary Pay.....	5
Program Funds.....	38

ABSTRACT - The Archives of American Art (AAA) is a Smithsonian facility serving academic, museum, and other scholarly interests. It preserves and makes available to students and historians the documentary resources required for research and publication on American art. An FY 1976 increase of 4 positions and $38,000 is sought to improve the AAA in two areas: (1) Archives - 4 positions and $31,000 for increased processing capability in the Washington center to prevent further backlogging of unprocessed and unfilmed work, and for travel funds; and (2) Buildings and Facilities Management - $7,000 to meet new rent costs. An additional amount of $5,000 is requested for necessary pay for existing staff.

PROGRAM - The AAA assembles and preserves the personal and official records of artists, dealers, critics and art organizations and thereby encourages scholarship by giving researchers access to the primary documentation they need. These collections of papers, which range in time from the 18th century to the present and cover the entire United States, are sought out, organized, catalogued, microfilmed, and made available to qualified scholars. Several million items are now at hand in the form of letters, journals, sketchbooks, business papers, photographs, and scarce publications. New collections are constantly being received. This material is intensively used by staff and fellows from Smithsonian museums as well as by graduate students, art historians, and curators across the country. In the past few years several hundred completed books, articles, catalogues, and dissertations have acknowledged the AAA as a source of information.

The processing and chief reference center of the Archives is located in Washington, with centers in Boston, New York, Detroit and San Francisco. Each office is responsible for acquiring further collections of papers and for administering complete sets of microfilm containing all documents offered by the Archives.

The Archives also has an important oral history program, begun in 1959, comprising today more than fourteen hundred transcripts of interviews with artists, dealers, collectors, and administrators. This program is subsidized by private funds, a part of them in the form of foundation grants generated by the Archives. Private funds are also used for the publication of Archives of American Art Journal, a quarterly periodical based on and publicizing Archives resources. The Archives anticipates income from private funds of about $150,000 in FY 1975.

JUSTIFICATION OF $38,000 INCREASE:

Archives - The FY 1975 appropriation has permitted initial progress in sorting and filming over 700 collections of papers acquired in previous years which had accumulated in the processing center in Washington. An additional microfilm camera was purchased, one full-time position (archives technician) was added, and two 700-hour appointments were used for processing and preparing a checklist of these collections. During FY 1976, this archives technician and renewed 700-hour appointments will continue their work of preparing the backlog of previously acquired materials for research use.

For FY 1976, the Archives requests funds and positions to prevent the increasing amount of new materials being received from becoming similarly backlogged and unavailable to scholars on a timely basis. In FY 1973 and 1974, over 100 collections of papers were acquired annually. By contrast, in just the first six months of FY 1975, over 120 new collections have been received. With four regional offices now in full operation and pursuing further important collections, a similar increase for FY 1976 can be anticipated. To cope adequately with these new materials, the Archives requests that its current staff of six archives aides be increased by an additional four for $29,000.

The collection of this unique documentary material on American art requires Area Directors to travel, seeking out on a wide regional basis the living artists, relatives, and associates of deceased artists who have in their possession papers and other material needed by scholars. To pursue this basic collecting activity, the Archives requires an increase of $2,000 in travel funds for FY 1976.

Building and Facilities Management - The Archives regional offices are experiencing cost inflation in their support activities. The Boston office, formerly rent-free, is now being charged a rental fee to offset heating and maintenance expenses. The New York office rent will again be raised this year. The cost of communications has been increased already this year. An increase of $7,000 is required to offset this support problem in the regional offices.

COOPER-HEWITT MUSEUM OF DECORATIVE ARTS AND DESIGN

1974 Actual.....$174,000
1975 Estimate.....$209,000
1976 Estimate.....$293,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	11	5	16
11 Personnel Compensation.....	160	43	203
12 Personnel Benefits.....	14	3	17
21 Travel & Trans. of Persons...	1	1	2
23 Rent, Comm. & Utilities.....	30	20	50
26 Supplies and Materials.....	4	17	21
TOTAL	209	84	293
Analysis of Increase			
Necessary Pay.....		4	
Program Funds.....		80	

ABSTRACT - The Cooper-Hewitt Museum of Decorative Arts and Design is one of the world's most distinguished repositories of decorative arts and design. The collection currently numbers over 100,000 objects ranging from textiles, drawings, wallpaper, furniture, and jewelry to glass, ceramics, and silver. In FY 1976 an increase of 5 positions and $80,000 is sought for Building and Facilities Management and related supplies. Necessary pay in the amount of $4,000 is sought for existing staff. Under the heading "Office of Protection Services" funds are sought for the Cooper-Hewitt protection force.

PROGRAM - The Cooper-Hewitt Museum is the only museum in the United States devoted exclusively to the study of historical and contemporary design. The collections currently span 3,000 years and include over 100,000 objects. Its textile collection is internationally known, its drawing collection is the largest in the United States, and its wallpaper collection is the largest in the world. In addition, the Museum contains fine examples of furniture, glass, ceramics, silver, metalwork, lighting fixtures, jewelry, and other decorative objects. In recent years categories of architecture, urban planning, and industrial design have been added. The collection is supported by one of the finest and most complete decorative arts and design libraries in the country. The library encompasses a reference library, a rare book library (25,000 volumes), picture archives of over 1 1/2 million items, and special archives on color and light, patterns, materials, symbols, sensory and technological data, interiors, advertising, design theses and typography.

In 1965, the Board of Regents of the Smithsonian Institution authorized the Secretary to negotiate with the Trustees of the Cooper Union for the transfer to the Smithsonian of the collections of the Cooper Union Museum in New York City. An agreement for the transfer of the Museum was subsequently signed on October 9, 1967.

In the years since acquiring these great decorative arts and design collections, the Smithsonian has sought to solve three closely related problems with respect to the operation of the Cooper-Hewitt Museum. The first of these was to define the scope of the program for the new museum. The second was to locate a suitable home in New York City. The third was to raise funds, both for operations and for necessary construction.

The Museum was originally intended by its founders, the Misses Sarah, Eleanor, and Amy Hewitt (granddaughters of Peter Cooper) to be a resource for students and practitioners of design. It was to serve as a repository of information about, and

examples of, design of all sorts through the ages. They intended that it should be an active institution and that all its collections should be easily accessible to professionals in the field of design as well as to the general public. By the time the Smithsonian acquired the Museum, however, much of this original vision had been lost and the Museum had tended to become a rather rarefied collection of decorative art objects appealing primarily to a small number of connoisseurs.

The scope of the program has been redefined. After a number of conferences and discussions including the Museum staff and other Smithsonian staff, it was agreed that the Cooper-Hewitt Museum should revert to its origin and become a national museum of design. Building upon its excellent collections, and particularly upon its unequalled archives of illustrative materials, the Museum intends to make use of appropriate modern technology--including computers, holography, and other forms of data storage and retrieval--to achieve this objective. This renewed determination to serve society by serving the design profession in the broadest sense is in keeping with the traditions of the Museum and of the Smithsonian.

Concurrent with program development, the Institution was also engaged in a search for suitable quarters for the Museum in New York City. On January 27, 1972, the Carnegie Corporation of New York gave the Regents of the Smithsonian the Andrew Carnegie Mansion, the adjoining Miller House, and the grounds comprising the entire block from 90th to 91st Streets on Fifth Avenue. The Smithsonian engaged an architectural firm to prepare a master plan for the ultimate use of the entire property, as well as a phased plan for the remodeling of the Carnegie Mansion to permit its use as a museum. In August 1974, the Institution signed a contract financed by $1,150,000 in private funds for the first phase of reconstruction of the Mansion. This contract will finish the public exhibition areas (with the exception of floor coverings); install necessary heating, ventilating, and air-conditioning equipment; create the shaft for a new elevator; complete one of the study floors; and do necessary work in the nonpublic spaces in the basement. It is estimated that additional private funds in the order of $200,000 will be required to finish all work required for public museum use. The first phase of the renovation program is projected to be completed in December 1975, followed by a public opening in 1976. A picture of the Cooper-Hewitt Museum is shown on page A-54.

Fund raising for the Cooper-Hewitt has been a continuing preoccupation of both the Museum and the Smithsonian and has produced impressive results. In the period 1969-1974, more than $1,100,000 (including interest) has been raised from private donors, corporations, foundations, and other organizations to meet operating expenses. This was in addition to the funds raised for renovation. Furthermore, the Museum has received $400,000 to meet the costs of an opening exhibition in its new quarters.

As far as Federal funds are concerned, the Smithsonian adopted the principle that the programs of the Cooper-Hewitt should be operated with non-appropriated funds, and that appropriated funds should insofar as possible be limited to the protection and preservation of collections and property. Over the past three years, support funds appropriated for such purposes have permitted maintenance of a minimal program at the Cooper-Hewitt, in anticipation of its reopening as a fully operating museum. In FY 1973, the Smithsonian received 9 positions and $85,000 for the Cooper-Hewitt Museum. These positions, requested as part of the Buildings Management Department, were for guards, custodians, and mechanics. In FY 1974, as a part of a general reorganization these positions and the dollars now related to them were transferred directly to Cooper-Hewitt. Made available at the same time were positions and dollars to assist in administration and registration. The 11 positions currently at Cooper-Hewitt are for 3 administrative, 2 registration, and 6 buildings and facilities management staff. In addition, the Smithsonian Institution Libraries provides routine library assistance to the Cooper-Hewitt from its resources. It is intended that Federal expenditures will continue to be limited to the purposes stated above.

During the last year, objects from the collection were included in exhibitions at twenty-three institutions including the Metropolitan Museum, National Gallery of Art, Baltimore Museum, and the Art Institute of Chicago. The Museum organized a major exhibition of drawings, textiles, and wallpapers entitled "The Art of Decoration,"

which opened at the Victoria and Albert Museum in London and was later shown at the Brooklyn Museum. An exhibition of Winslow Homer watercolors and drawings from the Cooper-Hewitt collection travelled to London following its showing at Columbia Museum of Art and the Telfair Academy. In addition, benefit exhibitions of paintings by Thomas Moran and Frederic Church were held in leading New York galleries. Work on ten further exhibitions is currently in progress.

JUSTIFICATION OF $80,000 INCREASE (Buildings and Facilities Management) - The Cooper-Hewitt Museum, when it re-opens in 1976, will be open to the public six days a week with expected attendance of 250,000 visitors per year. The Museum in its present closed down state has a maintenance and trade staff of 5. It is proposed that this staff be increased to 10 to provide adequate care for the 20,000 square feet of public space, 12,000 square feet of semi-public study and library space, and 46,000 square feet of garden. This increase of 5 positions and related funds for supplies and materials would provide a minimum work force to maintain the property at minimum acceptable standards. The indoor space includes parquet floors, boiserie, and ornamental plaster ceilings which present special maintenance problems. The garden will include flower beds, trees and bushes, grass and gravel which must be kept in order throughout the year.

OFFICE OF THE ASSISTANT SECRETARY FOR PUBLIC SERVICE

1974 Actual.....$181,000
1975 Estimate.....$209,000
1976 Estimate.....$215,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	10	0	10
11 Personnel Compensation.....	180	6	186
12 Personnel Benefits.....	15		15
21 Travel & Trans. of Persons...	4		4
25 Other Services.....	4		4
26 Supplies and Materials.....	3		3
31 Equipment.....	3		3
TOTAL	209	6	215
Analysis of Increase			
Necessary Pay.....		6	
Program Funds.....		0	

ABSTRACT - The Office of the Assistant Secretary for Public Service guides and supports the public service units in the development of programs to advance the Institution's objectives in education and information. No program increase is requested for FY 1976. Funds in the amount of $6,000 are sought for necessary pay.

PROGRAM - The primary functions of the Office of Public Service are to stimulate, to coordinate, and to supervise the steadily increasing activities of the Smithsonian's educational and public service components. These include the unique experimental efforts of the Anacostia Neighborhood Museum; the many-faceted work of the Division of Performing Arts in synthesizing and presenting to the American public across the nation the historical and continuing development of the American aesthetic experience; the programs of the Office of Elementary and Secondary Education to make the Smithsonian's facilities and collections accessible and pertinent to visiting school children; the development of interdisciplinary symposia and seminars to enable leading scholars and specialists from the world community to examine themes of

common concern conducted by the Office of Smithsonian Symposia and Seminars; the dissemination of Smithsonian research and interests through the Smithsonian Press and the Smithsonian Magazine; the organization and conduct of meaningful adult and teenage educational presentations by the Smithsonian Associates; and an active public affairs operation including production of a commercial television series and audio-visual educational materials, dedicated to keeping Americans currently informed of the educational programs and exhibits available to them at or through the facilities of the Smithsonian Institution.

ANACOSTIA NEIGHBORHOOD MUSEUM

1974 Actual.....$317,000
1975 Estimate.....$423,000
1976 Estimate.....$469,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	19	2	21
11 Personnel Compensation.....	266	33	299
12 Personnel Benefits.....	23	3	26
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	47		47
24 Printing and Reproduction....	21		21
25 Other Services.....	36		36
26 Supplies and Materials.....	23	10	33
31 Equipment.....	5		5
TOTAL	423	46	469
Analysis of Increase			
Necessary Pay.....		11	
Program Funds.....		35	

ABSTRACT - The Anacostia Neighborhood Museum provides a personal and educational museum experience for audiences unaware of or unaffected by major museum resources. An increase of $35,000 is requested in FY 1976 to meet the following program requirements: (1) Exhibitions - an exhibits specialist ($13,000) and an additional amount of $10,000 for exhibits supplies and materials such as masonite, lumber, plexiglass, and photographic supplies to expand exhibit production capability and assist in production of Bicentennial-related exhibits and (2) Buildings and Facilities Management - a general maintenance worker ($12,000) to establish at the Museum the capability for proper and efficient repair and maintenance of an expanding number of facilities. An additional amount of $11,000 is also being sought for necessary pay.

PROGRAM - The Anacostia Neighborhood Museum (ANM) was established to reach out to new audiences who are unaware of museum resources, physically too far from them, or, as inhabitants of low-income population density centers, do not see the interest or relevance of museums. By linking its research, exhibits, and education directly to the needs of the community, the ANM has assured a fresh, nontraditional approach to the role of the museum. The Museum is a combination of many things. It serves as a meeting place, a performing arts center, a recreation facility, and an arts and crafts workshop. It offers learning experiences through changing exhibits on subjects relevant to the community. Two major exhibits to be produced in FY 1975 are: "The Message Makers," an indepth survey of the communications media and its effects on the lives of black people, and "East Bank Anacostia," an art exhibition featuring artists in Anacostia and Northeast Washington.

In addition to educational opportunities offered at the Museum itself, such as guided tours of museum exhibits and various workshops, demonstrations, and seminars, the Museum also has developed educational resources that are available to schools, churches, and community organizations on a loan basis. These resources, which focus on urban concerns and the history and culture of people of African descent, include portable exhibits, speakers, demonstrations, and small educational kits.

JUSTIFICATION OF $35,000 INCREASE:

Exhibitions - Since its establishment, the Museum has developed a small but effective exhibits program. There is currently a staff of four responsible for the design, production, and installation of exhibits in the Museum. While the exhibits produced by this staff have received much recognition and acclaim, both from within and outside the community, their numbers have been limited. Two recent developments have provided the opportunity to increase both the number of exhibits and the audiences to whom they are presented. One of these developments involves the newly completed exhibits design and production laboratory, which, in addition to serving, with foundation fund support, as a facility for training minority museum technicians, will also provide much needed space and equipment for exhibits design and production. Furthermore, with funds requested under the Bicentennial heading, three special Bicentennial exhibits will be produced. These Bicentennial exhibits will be displayed at the Museum and will be circulated throughout the country in the form of traveling exhibits. With the new availability of space and the impetus of the Bicentennial effort, the Museum has an opportunity as well as an immediate need to increase its exhibit production capability. An increase of one position, an exhibits specialist, ($13,000), and $10,000 for support costs of exhibit supplies and materials are requested.

Buildings and Facilities Management - The ANM has never had a full-time general maintenance worker to provide day-to-day maintenance and repair services. With the completion and use of the new exhibits design and production laboratory, Anacostia personnel will be located at three different facilities, further emphasizing the need for a carefully developed and applied program of facility upkeep. One position and $12,000 are requested to assure proper maintenance and repair of these facilities, including, when necessary, the refurbishment of office furniture and the repair of minor office machines.

INTERNATIONAL EXCHANGE SERVICE

1974 Actual.....$175,000
1975 Estimate.....$187,000
1976 Estimate.....$212,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	9	0	9
11 Personnel Compensation.....	119	5	124
12 Personnel Benefits.....	10		10
22 Transportation of Things.....	50	20	70
26 Supplies and Materials.....	7		7
31 Equipment.....	1		1
TOTAL	187	25	212
Analysis of Increase			
Necessary Pay.....		5	
Other Uncontrollable.....		20	
Program Funds.....		0	

ABSTRACT - Through the International Exchange Service, public and private institutions in the United States exchange publications with organizations in other countries. This includes the exchange of the offical United States publications, including the daily issues of the Federal Register and the Congressional Record, the weekly issues of the U. S. Patent Specifications, as well as private publications such as medical and dental texts. No program increase is sought for FY 1976. Funds in the amount of $5,000 are requested for necessary pay for existing staff. Also $20,000 for shipping rate increases is requested in the Uncontrollable Section.

PROGRAM - In 1849, the Smithsonian Institution established a system for the exchange of Smithsonian publications with the learned societies of other countries. This program was so successful that later it was expanded to other American organizations. The Exchange's responsibilities were formalized when the Brussels Convention of 1886 was adopted by the United States, and the Smithsonian Institution became the official exchange bureau in the United States for the international exchange of literary, scientific, and cultural publications. In addition, a Resolution to provide for the Exchange of certain Public Documents (14 Stat. 573, as amended) provides that the exchange of the official United States publications shall be made through the Smithsonian Institution. In FY 1974, approximately 2.5 million publications were transmitted to over 100 countries for exchange documents.

DIVISION OF PERFORMING ARTS

1974 Actual..... $422,000
1975 Estimate..... $371,000
1976 Estimate..... $402,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	10	1	11
11 Personnel Compensation.....	233	25	258
12 Personnel Benefits.....	20	3	23
21 Travel & Trans. of Persons...	16		16
22 Transportation of Things.....	2		2
23 Rent, Comm., & Utilities.....	2		2
24 Printing & Reproduction.....	4	1	5
25 Other Services.....	78	1	79
26 Supplies and Materials.....	12		12
31 Equipment.....	4	1	5
TOTAL	371	31	402
Analysis of Increase			
Necessary Pay.....		8	
Program Funds.....		23	

ABSTRACT - The Division of Performing Arts (DPA) has primary responsibility for the production and presentation of all live performance events of the Smithsonian Institution and its museums, with an emphasis on programs that relate to and enhance museum collections and that deal with our national aesthetic expressions. The FY 1976 budget seeks an increase of 1 position ($20,000) with support funds of $3,000 to establish an eductional program. Funds ($8,000) are also sought for necessary pay costs.

PROGRAM - DPA is the primary planning, producing, and supervising organization in the Smithsonian for all public performances. Its Federal appropriation provides for central administration and direction and funds for some program development with most of its activities produced with other appropriated and non-appropriated funds. Annually,

it presents the Festival of American Folklife, which has become the largest summertime event in the Nation's Capital, and a number of special series and individual events during the winter months. During the 1973-1974 season, some 15,000 people attended concerts offering a range of creative musical expressions from baroque to bluegrass and jazz. Most concerts were preceded by free public workshops. A new recording program instituted by the division issued a historic first, the Smithsonian Collection of Classic Jazz, a boxed, six-record set including 85 selections from 17 record companies. Receiving critical acclaim, the Collection has now had several printings. The Smithsonian Resident Puppet Theater, one of two continuously operated puppet theaters in the country, attracts several thousand visitors each week to its shows. The carousel and an original old-time popcorn machine contribute to a lively mall. Performing Arts shares the American experience in its many creative forms with people across the nation through the Touring Performance Service, offering performances not available through commercial management to museums, colleges, universities, and cultural centers. The 1973-1974 season saw 51 performances in 23 states. Some one million persons were attracted to the 1973 and 1974 Festivals of American Folklife featuring a new site, the Mall's Reflecting Pool, an expanded schedule, and new themes leading to a season-long Bicentennial Festival in 1976. The Smithsonian is joined by the National Park Service as a co-sponsor.

In an effort to accommodate a program of such magnitude, the Division has narrowed its focus in other areas, and re-directed efforts and funding. Programs curtailed or transferred to other organizations include the American College Theatre Festival, the Indian Awareness program, and some of the Mall-based programs. Programs retained and in some instances augmented by this review include the Division's Jazz series, which is now directing an oral history of jazz in cooperation with the National Endowment for the Arts, and an organized tour program of foreign folk performers in 48 or more appearances throughout the United States in cooperation with the American Revolution Bicentennial Administration.

JUSTIFICATION OF $23,000 INCREASE (Education and Public Orientation) - The DPA has a responsibility to educate the attending public to the nature of these performing events and their relationship to the museums of the Institution. The need for a unified, thoughtful, well-planned educational program is strong, but the Division has been able to provide only minimal service. Requests for assistance from other museums, educational institutions, and other interested organizations go largely unanswered due to lack of staff and an adequate educational program. Availability of information to the public on the Division's activities is sporadic and insufficient. The need to unify the outdoor Festival of American Folklife, particularly the Bicentennial event, with the collections indoors at the Museums has long been recognized; but without planning, thought, and production, this need has been poorly met. The FY 1976 budget attempts to rectify the situation with the establishment of an education specialist ($20,000) with $3,000 of program funds. This position would serve as a focal point for an educational program relating all Divisional presentations--Jazz, winter programs, Folklife Festival, and Bicentennial Festival--to each other and to the Smithsonian Institution's museums and collections.

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OFFICE OF PUBLIC AFFAIRS

1974 Actual..... $396,000
1975 Estimate..... $307,000
1976 Estimate..... $317,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	15	0	15
11 Personnel Compensation.....	223	9	232
12 Personnel Benefits.....	19	1	20
21 Travel & Trans. of Persons..	1		1
24 Printing and Reproduction...	52		52
25 Other Services.....	9		9
26 Supplies and Materials.....	1		1
31 Equipment.....	2		2
TOTAL	307	10	317
Analysis of Increase			
Necessary Pay.....		10	
Program Funds.....		0	

ABSTRACT - The Office of Public Affairs is responsible for communication of information about the Smithsonian and its programs to the public through various media--radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, and general information and visitor orientation pamphlets and other items. No additional program funds are requested in FY 1976. Necessary pay in the amount of $10,000 is sought for current staff.

PROGRAM - The Office of Public Affairs serves millions of museum and gallery visitors annually, as well as the general public, through the communication of factual and educational data about the Smithsonian and its programs. A wide array of communications media is used: radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, the Smithsonian Calendar of Events, Dial-A-Phenomena, Dial-A-Museum, and general information pamphlets and publications. Included in its presentations are the Torch newspaper, Research Reports, and the "Radio Smithsonian." The Office of Public Affairs also administers the Office of Special Events, which assists with exhibition openings, seminars, meetings, and special activities held in Smithsonian facilities in Washington, D.C.

In FY 1974 and continuing in FY 1975, the Smithsonian has been working with a television producer to bring to commercial television a series on the Smithsonian. The first special "MONSTERS: Mysteries or Myth" was aired December 1974. The documentary made especially for television had the highest rating for such a film ever shown, a Nielson rating of 31.2 which means 44 percent of the television viewing audience was watching this show. The second special "Flight: The Sky's the Limit" was shown in late January. The third in the series is to tell the story of the Hope Diamond, now part of the Smithsonian's collections.

SMITHSONIAN INSTITUTION PRESS

1974 Actual.....$800,000
1975 Estimate.....$605,000
1976 Estimate.....$621,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	27	0	27
11 Personnel Compensation.....	496	15	511
12 Personnel Benefits.....	43	1	44
21 Travel & Trans. of Persons...	2		2
24 Printing and Reproduction....	55		55
25 Other Services.....	4		4
26 Supplies and Materials.....	3		3
31 Equipment.....	2		2
TOTAL	605	16	621
Analysis of Increase			
Necessary Pay.....		16	
Program Funds.....		0	

ABSTRACT - The Smithsonian Institution Press is responsible for the editing, design, production, and distribution of printed material produced by historians, scientists, and curators. Included in this work are multi-volume monographs, eight scientific series, exhibit catalogues for the several museums, education pamphlets, and information leaflets. No additional program funds are requested in the FY 1976 budget. Funds in the amount of $16,000 are sought for necessary pay.

PROGRAM - Press publication activity is a fundamental extension of the work of the Smithsonian's basic research laboratories. Necessary for ecological and agricultural advancement and other basic and applied studies by researchers, these reports are distributed to major libraries and scientific institutions in all 50 states and many foreign countries. The Press edits manuscripts and issues contracts for the printing of exhibit catalogues, education pamphlets, and informative leaflets for the many millions of visitors to the Smithsonian each year. The Press reviews each manuscript submission for editorial content and completeness, quality of typing, illustrations, etc. before acceptance. Inadequately prepared manuscripts (i.e. those that would be too costly to edit or manufacture) are not accepted for publication. Finally, the Press furnishes the Institution with a variety of necessary manuals, reports, and directories, including copies of Congressional materials and reports from Government agencies.

In FY 1975, most of the printing funds (except for those used for certain Institution-wide publications, such as the Smithsonian Year) that previously had been spent directly by the Press for the printing of bureau and office research reports and exhibit catalogues were allocated directly among those units. This will result in each such unit paying for its own printing. Resulting benefits include (1) each unit establishing the priorities for its manuscripts to be printed and (2) printing costs being shown as a function of program activity. Since the legal authority to purchase printing with Federal funds rests with the Press, it will continue to process printing requisitions.

OFFICE OF THE ASSISTANT SECRETARY FOR MUSEUM PROGRAMS AND OFFICE OF MUSEUM PROGRAMS

1974 Actual.....$ 494,000
1975 Estimate.....$ 935,000
1976 Estimate.....$1,005,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	63	1	64
11 Personnel Compensation.....	719	54	773
12 Personnel Benefits.....	62	5	67
21 Travel & Trans. of Persons...	12		12
22 Transportation of Things.....	2		2
23 Rent, Comm. & Utilities.....	7		7
24 Printing and Reproduction....	12		12
25 Other Services.....	78	3	81
26 Supplies and Materials.....	19	5	24
31 Equipment.....	24	3	27
TOTAL	935	70	1,005
Analysis of Increase			
Necessary Pay.....		46	
Program Funds.....		24	

ABSTRACT - The Assistant Secretary for Museum Programs oversees and reviews the Institution's museum and exhibition activities, with special emphasis on developing exhibits, surveying visitor reactions to the Institution's services, assessing the effectiveness of educational programs, and providing advice, technical assistance, and documentary resources to other museums.

The South Group Buildings Manager, now under the Office of Museum Programs, has the responsibility for custodial maintenance of the Arts and Industries Building, the Smithsonian Institution Building, and the temporary Air and Space Building.

An increase of one position and $24,000 is requested for Building and Facilities Management - an electrician ($13,000) and funds for related custodial services, supplies and materials, and equipment. An additional amount of $46,000 is being sought for necessary pay for the entire office.

PROGRAM - I. Assistant Secretary for Museum Programs - With 18 positions and $378,000 the Office of the Assistant Secretary for Museum Programs administers, oversees, and reviews the Office of Museum Programs, Office of the Registrar, Conservation-Analytical Laboratory, Office of Exhibits Central, Smithsonian Institution Archives, National Museum Act, Smithsonian Institution Libraries, Smithsonian Institution Traveling Exhibition Service, and the South Group Buildings Manager. In addition, this office works with museum professionals and their associations and organizations to increase the effectiveness of museums in the performance of their scholarly and public education functions. The Office of Museum Programs is an aggregate of programs responsible for the coordination of activities related to training in museology and museography and the development of new techniques related to museum administration and practices. Presently, the Office maintains three major programs--the Museum Workshop Program, the Conservation Information Program, and the Psychological Studies Program.

The Museum Workshop Program offers workshops, seminars, and training courses to any individual gainfully employed by a museum. Each workshop, taught by Smithsonian staff, is devoted to specific methods or problems. Enrollment is limited, and

instructors try to concentrate on the particular needs of each participant. Special attention is usually given to the problems of the small museum's budget, services, and facilities. In 1975 approximately 16 three-day to one-week workshops will be offered. Subjects include: financial management, the training of docents, and insurance. Special attention will be given to the needs of minorities, particularly American Indian communities which have museum or museum-related facilities but face a serious shortage of trained personnel.

The Conservation Information Program is designed to make the knowledge and facilities of the Smithsonian accessible to as large an audience as possible. The program acquaints small museums, interested organizations, and individuals with selected theoretical and practical principles currently practiced in the field of museum conservation. This information--in the form of video-taped programs and slide lectures accompanied by tape commentaries--is lent, free of charge, to all who request it. To date, the Conservation Information Program, in cooperation with the Smithsonian Institution Conservation-Analytical Laboratory, has produced 4 slide presentations on the curatorial care of objects, and 10 more are being prepared during the next year. Some selected subjects include: dry methods in the cleaning of prints, drawings, and manuscripts; proper mounting and matting of drawings and manuscripts; proper mounting and matting of paper; the protective lining of a wooden storage drawer for textiles and costumes; and the wet cleaning of antique cotton, linen and wool.

The Psychological Studies Program studies the effectiveness of exhibits and visitor reaction to them. Types of studies include basic research on museums as learning and teaching environments; the evaluation and effectiveness of various exhibition techniques, including assessment of push-button devices and audio-visual adjuncts; the effect of noise and crowds on visitor comprehension; and problems of orientation. A major monograph, The Measurement and Facilitation of Learning in the Museum Environment, was published in FY 1975, and at least two other studies are expected to be completed in FY 1976.

11. South Group Buildings Manager - With 45 positions and $557,000 in FY 1975, the South Group Buildings Manager's office plans and supervises the cleaning, maintenance, and servicing of occupants in primarily the Smithsonian Institution and Arts and Industries Buildings. This involves the daily cleaning of all office, exhibition, and laboratory space; moving services as renovation work on the Arts and Industries Building progresses and offices must be relocated to make way for planned construction; and the transportation of objects or equipment as required.

JUSTIFICATION OF $24,000 INCREASE (Buildings and Facilities Management) - When the renovation of the Arts and Industries Building is completed, four major exhibition halls will be reopened to the public. In recent years exhibition space in this building has been put to other uses. With the installation of the 1876-Centennial Exhibition this building will once again become a major public museum. One electrician ($13,000) and $11,000 for custodial services, supplies and materials, and equipment are requested to help maintain the reopened building.

OFFICE OF THE REGISTRAR

1974 Actual.....$231,000
1975 Estimate.....$202,000
1976 Estimate.....$212,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	16	0	16
11 Personnel Compensation.....	147	9	156
12 Personnel Benefits.....	12	1	13
21 Travel & Trans. of Persons...	1		1
25 Other Services.....	3		3
26 Supplies and Materials.....	6		6
31 Equipment.....	33		33
TOTAL	202	10	212
Analysis of Increase			
Necessary Pay.....		10	
Program Funds.....		0	

ABSTRACT - Since the 1880's, the Office of the Registrar has served as the Registrar for the National Museum of Natural History (NMNH) and the National Museum of History and Technology (NMHT). Registration at the Smithsonian is undergoing modernization and decentralization. The Central Registrar will guide decentralization and provide continuing assistance to all bureaus in modernization of registration systems. No program increase is sought for FY 1976. Necessary pay in the amount of $10,000 is sought for existing staff.

PROGRAM - This Office was established in the 1880's to handle the traditional tasks of shipping and documenting accessions primarily for the NMNH and NMHT collections. Registration at the Smithsonian is now undergoing modernization, rationalization, and decentralization. Modernization includes streamlining of manual systems for control of the National Collections, and computer applications where useful and efficient. Rationalization includes removal of extraneous functions from the Central Registrar's Office; mail services were transferred to the Office of Plant Services in FY 1974 and public inquiry was transferred to the Office of Public Affairs in FY 1975. Decentralization is aimed at giving each museum or gallery its own registration capability, a necessity for effective registration given the diversity of collections and activities of these bureaus. This Office will be retained as a Central Registrar to guide decentralization, provide continuing assistance to bureaus in modernization of their systems, and, most important, to guide development of a Smithsonian-wide information system for effective intellectual integration of the National Collections.

From a total FY 1975 budget of $202,000, $95,000 is projected for operation of the Central Office and the balance will be made available to NMHT and NMNH for their continued registration/shipping functions. Decentralization should be completed physically and organizationally during FY 1975, but modernization of registration systems and creation of effective information systems is an on-going project. The result of this program will be registration services much more responsive to bureau needs, and a vastly improved information system at the Institutional level.

During FY 1974, the Central Registrar continued to act as registrar for the NMHT and NMNH; the office handled a total of 1,627 new accessions (598,628 specimens) in NMNH and 764 new accessions (116,556 items) in NMHT. The Central Registrar also continued to administer shipping transactions for most Smithsonian bureaus, as well as the public inquiry function.

CONSERVATION-ANALYTICAL LABORATORY

1974 Actual.....$319,000
1975 Estimate.....$561,000
1976 Estimate.....$606,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	21	2	23
11 Personnel Compensation.....	321	41	362
12 Personnel Benefits.....	27	4	31
21 Travel & Trans. of Persons...	10		10
23 Rent, Comm. & Utilities.....	1		1
25 Other Services.....	20		20
26 Supplies & Materials.....	12		12
31 Equipment.....	170		170
TOTAL	561	45	606
Analysis of Increase			
Necessary Pay.....		13	
Program Funds.....		32	

ABSTRACT - The Conservation-Analytical Laboratory (CAL) advises on the suitability of buildings' environmental conditions for objects displayed or stored. It examines and treats objects for their protection and preservation, analyzes objects for basic research data of interest to scientists and historians, and conducts training programs in association with Conservation Information Programs. The FY 1976 budget proposes an increase of $32,000 for 2 new positions and program funds to continue the phased development of the Laboratory's capability to respond to the conservation needs and analysis and treatment of objects. An amount of $13,000 is requested for necessary pay for current staff.

PROGRAM - The Conservation-Analytical Laboratory was established in 1963 to serve the museums of the Smithsonian Institution. Staffed by conservators and scientists, it ascertains and advises on the suitability, for artifacts displayed or in storage, of environmental conditions found in the buildings and suggests remedial action if necessary. Based upon examination or analysis, advice is given to curatorial units on conservation procedures for specific objects. Objects which cannot be treated locally, which present special problems, or require more specialized equipment than is available in these units, are treated in this central laboratory.

Analyses of objects or their materials (e.g. pigments, fibers, alloys, or corrosion products) by advanced instrumentation serve to determine appropriate conservation procedures or to provide museum archaeologists and historians with basic research data concerned with dates, attribution, and ancient production methods. Commercial products proposed for prolonged contact with artifacts (or fumigants used in storage) are examined for suitability.

To improve services to the bureaus, the Laboratory has purchased extensive equipment including: thermoluminescent dating equipment which will be used to date ceramics; a memory board for the dedicated Nova 1012 Computer which extends its capability to do analytical computations; and a videotype word-processor to increase output from a single typing position.

For conservation or other staff in the bureaus there are regular lectures. Technical information on specific subjects is made available as audio tapes and tape-slide lectures through Conservation Information Programs.

JUSTIFICATION OF $32,000 INCREASE (Conservation) - Museums serve a unique role in that they are the primary guardians of the evidence of man's cultural development from the earliest times onward. Museum collections, including artifacts, specimens, and works of art, are primary resources in the functions of exhibit display and research. Museums must be able to transmit to future generations the heritage which previous civilizations have left. For a substantial part of the objects in museum collections this is not likely to occur if greater attention is not given to the needs of conservation. Every material ages and that age brings disintegration. During the last millenia the external factors accelerating this process of decay have been virtually entirely natural in their causes. But over the last century and a half, man has contributed and accelerated this process with the increasing pollution of his urban and industrial society. As a result, objects which under different conditions could have remained sound for decades, or even centuries, are now crumbling. Conservation of the collections requires constant attention to environmental conditions in the buildings and other specialized treatment (including fumigation) to forestall deterioration and decay.

Restoration without a deep understanding of materials' properties and styles is not a complete solution. If it does not affect the causes, it may be worse than nothing. Causes of the decay must be understood. Fundamental research has to be done on the properties of materials; new techniques must be experimented with; and, particularly, new substances used for conservation or repair must be carefully tested to make sure that they will not, now or in the foreseeable future, react adversely with the materials that they are intended to consolidate, or behave towards the objects in a fashion comparable to the pollutants in the air.

The conservation program of the Smithsonian is inadequate to these needs. It must be strengthened both in individual bureaus and in the central Conservation-Analytical Laboratory. Successful conservation efforts in the bureaus require knowledgeable personnel capable of recognizing and correcting specific local conservation problems and treating those items not requiring specialized treatment by the central laboratory.

Accessions of artifacts number about 130,000 a year. Proper treatment of these objects alone is well beyond the present capability of the Institution's facilities. Thirty-two man years of work each year is estimated to be required for new objects exclusive of the needs of hundreds of thousands of deteriorating objects already in the collections. Conservation and analytical work is detailed and painstaking. During FY 1974 despite disruption preparatory to rebuilding, 167 requisitions for 330 objects or samples were completed by CAL for 45 divisions of 17 bureaus. A paintings conservator was added to the staff of the laboratory in FY 1975 to conserve paintings and three dimensional objects of art of historical value in the National Collections.

In FY 1976, the Laboratory requests two additional conservators ($32,000) to assist with conservation effort.

SMITHSONIAN INSTITUTION LIBRARIES

1974 Actual.....$1,165,000
1975 Estimate.....$1,590,000
1976 Estimate.....$1,868,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	86	4	90
11 Personnel Compensation.....	1,029	83	1,112
12 Personnel Benefits.....	95	7	102
21 Travel & Trans. of Persons...	10	6	16
22 Transportation of Things.....	2		2
23 Rent, Comm. & Utilities.....	12	5	17
24 Printing and Reproduction....	60	35	95
25 Other Services.....	44	82	126
26 Supplies and Materials.....	101	25	126
31 Equipment.....	237	35	272
TOTAL	1,590	278	1,868
Analysis of Increase			
Necessary Pay.....		40	
Program Funds.....		238	

ABSTRACT - The Smithsonian Institution Libraries provides basic library and information services required by the research, exhibits, and administrative programs of the Smithsonian Institution. In FY 1976 an increase of 4 positions and funding of $238,000 is requested to meet the following needs: (1) to purchase necessary library materials ($60,000); (2) to preserve and conserve materials, including the valuable Dibner Library collection recently received as a gift by the Institution (2 positions and $71,000); (3) to develop computer cataloguing in order to improve the timeliness and efficiency of the Libraries' operations (1 position and $33,000); (4) to complete cataloguing of the National Air and Space Museum library collection (1 position and $68,000); and (5) to increase travel allowance to service bureau libraries ($6,000). An amount of $40,000 is requested for necessary pay.

PROGRAM - The Smithsonian Institution Libraries consists of a central library and 15 branch and bureau libraries providing support to the research, exhibit, educational, and administrative staffs of the Institution and to visitors by acquiring, cataloguing, binding and preserving books and other library materials, and by providing circulation and research services based on these collections. The Libraries' collections have achieved national significance in natural history, American ethnology, fine arts, and the history of science, American technology, and culture.

Recently, the largest single private library on the history of science and technology in the world was given to the Smithsonian by Bern Dibner. This extraordinary collection contains more than 25,000 rare books and other material including several hundred books printed before 1501. A conservative estimate of the present value of this collection is ten million dollars. The gift will enhance both the Libraries' and the National Museum of History and Technology's collections.

JUSTIFICATION OF $238,000 INCREASE (Libraries):

Acquisitions - The library collections of the Smithsonian Institution are indispensable tools to the research, exhibits, and public service activities of the Institution. Severe inflation combined with additional library support to programs in the Institution has slowed improvements in the Libraries' ability to meet the needs of the Institution. Inflation, which was anticipated at 11 percent in FY 1974, was actually 30-35 percent for books and journals. When the effect of inflation is

considered, the current book dollar is worth only 59 cents, based on the July 1973 dollar. In effect, the purchasing power of the Libraries book budget of about $200,000 has been cut by 40 percent as compared with 18 months ago. An increase of $60,000 for FY 1976 is requested to enable the Libraries to restore some purchasing power for essential library materials.

Conservation and Preservation - It is estimated that almost 12,000 journal volumes in the natural history collections require rebinding. At least 20,000 leather-bound volumes require similar treatment. One position ($17,000) and $20,000 for contract binding and preservation are requested for FY 1976. This is an increase of 40 percent above funds available for these purposes in FY 1975. Even this increase, however, will not permit the Libraries to bind all newly acquired materials much less reduce backlogs of materials now on the shelves.

The Dibner Library is one of the world's outstanding collections in the history of science and technology. The collection requires the attention of a rare book specialist ($17,000). An amount of $17,000 for care of the collection is also requested.

Computerized Cataloguing - The Libraries is involved in an experiment with other Federal libraries to test the effectiveness of cooperative computer cataloguing. Preliminary evaluation of the system suggests that the Libraries will benefit in savings both in processing time and costs of cataloguing. Records of 60 percent of materials purchased by the Libraries are found in the joint computer data base. Catalogue cards are received by the Libraries within 10 days of on-line placement of the order. This compares with an average of three months which is required to prepare catalogue cards using manual cataloguing techniques. Cataloguing productivity has increased 30 percent in the first quarter of FY 1975 as compared with the same period of FY 1974 with no more application of staff. Full cataloguing, however, is only one means of gaining intellectual access to and control of library materials. Further improvements, such as automated serials control and computer-printed lists of materials received, must be developed in order to improve timeliness and reduce costs. An amount of $25,000 is requested for computer costs, and one position ($8,000) is requested to support these activities.

National Air and Space Museum Library Preparation - In 1976, as part of the Smithsonian Institution's Bicentennial program, the new National Air and Space Museum will open. Of the 20,000 titles in the NASM Bureau Library, approximately 12,000 titles are not catalogued and are therefore difficult to use. The Libraries gives high priority to cataloguing the entire NASM collection for the opening of the Museum.

Studies indicate that approximately 2,000 of the NASM uncatalogued titles can be found in the computer data base. The remaining titles, however, will require application of other cataloguing techniques. The Libraries' cataloguing staff cannot process the NASM volumes in a single year and continue to catalogue new materials acquired. In order to expedite the cataloguing of a major portion of the NASM material, $60,000 is requested to catalogue approximately 10,000 volumes by contract, and one position ($8,000) is requested to perform related processing activities in-house.

Travel - The Libraries has administrative responsibility for bureau libraries in the Canal Zone (Smithsonian Tropical Research Institute), in New York City (Cooper-Hewitt Museum), and in Cambridge, Massachusetts (Smithsonian Astrophysical Observatory). Proper servicing of these libraries requires travel by Washington staff and the staff of the bureau libraries. In addition, the gift of the Dibner Library will require frequent trips to Connecticut by Libraries staff to select materials for the collection. Furthermore, the Libraries has become involved in international library and documentation activities. A principal means of professional development for the 32 professionals on the staff takes place on the national level, and frequently involves travel to seminars and conferences. These factors, in combination with increased travel costs, create serious deficiencies in the Libraries' travel allowance ($10,000 in FY 1975). An increase in the Libraries' travel allowance of $6,000 is requested to enable the Libraries to administer effectively bureau libraries outside of the Washington, D. C. area and to enable participation in international activities and in essential professional and staff development activities.

OFFICE OF EXHIBITS CENTRAL

1974 Actual.....$ 960,000
1975 Estimate.....$ 972,000
1976 Estimate.....$1,007,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	50	0	50
11 Personnel Compensation.....	822	32	854
12 Personnel Benefits.....	70	3	73
21 Travel & Trans. of Persons...	6		6
23 Rent, Comm. & Utilities.....	4		4
24 Printing and Reproduction....	5		5
25 Other Services.....	15		15
26 Supplies and Materials.....	30		30
31 Equipment.....	20		20
TOTAL	972	35	1,007
Analysis of Increase			
Necessary Pay.....		35	
Program Funds.....		0	

ABSTRACT - The Office of Exhibits Central (OEC), working in close collaboration with museum scientists, curators, and historians, prepares exhibits and related products for those museums, programs, and other offices not having their own in-house capabilities. OEC also provides specialized exhibit assistance to other bureaus and offices. No program increase is requested for this office. Necessary pay in the amount of $35,000 is sought for existing staff.

PROGRAM - The Office of Exhibits Central provides design, production, installation, and maintenance services to those museums, programs, and other offices of the Institution not having their own in-house capabilities for this work and provides the following exhibit assistance to other museums whose programs do not require or allow full-time staffing and/or establishment of shop facilities. Consultation as well as job performance is available in the following specialized areas: label editorial services, exhibition lighting, exhibit motion picture production, audio-visual installation and maintenance, freeze-dry taxidermy and the services of models, plastics, and restoration laboratories (specializing in fluid, thermo-setting, and reinforced plastics used in museum applications).

OEC also provides and coordinates training in exhibition media and techniques with the Office of Museum Programs and is developing programs to research, design, develop, evaluate, and communicate new exhibition techniques, systems, and procedures of value to the museum community.

During the first half of FY 1975, the OEC completed 89 exhibit and exhibit-related projects for 16 separate Smithsonian "clients" and provided consultant service to three museums outside the Institution. At the same time, 60 projects--long and short term--remained active on OEC schedules. Major OEC effort in the past 18 months has been devoted to providing assistance and/or full-program performance for the following exhibitions and activities: new exhibits for the Smithson Crypt, off-Mall bureaus, and the Commons cases in the Smithsonian Institution Building; the opening exhibitions at the Hirshhorn Museum; the Panda House exhibits and a Map-Directory with the National Zoological Park (NZP); a traveling exhibition "ZOO/100" with both the NZP and the Traveling Exhibition Service; and over 30 projects for Traveling Exhibition Service including several exhibitions produced in multiple editions. Models, plastics, and

restorations were produced for the "Discovery Room" and "Ice Age Mammals" for the Museum of Natural History as well as "Suiting Everyone" for the Museum of History and Technology.

SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE

1974 Actual.....$72,000
1975 Estimate.....$92,000
1976 Estimate.....$96,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	6	0	6
11 Personnel Compensation.....	54	4	58
12 Personnel Benefits.....	4		4
21 Travel & Trans. of Persons...	3		3
22 Transportation of Things.....	14		14
25 Other Services.....	17		17
TOTAL	92	4	96
Analysis of Increase			
Necessary Pay.....		4	
Program Funds.....		0	

ABSTRACT - The Smithsonian Institution Traveling Exhibition Service (SITES) provides carefully selected, well-designed, and widely circulated traveling exhibits covering a diversified range in the fields of art, design, science, technology, history, and education. These exhibits include not only Smithsonian exhibits, but also those organized and lent by numerous Government agencies and individuals and organizations throughout the world. No program increase is sought for FY 1976. Necessary pay for existing staff in the amount of $4,000 is requested.

PROGRAM - SITES, which has been in continuous operation for 23 years, is the only nation-wide organization circulating exhibitions of an interdisciplinary curriculum serving specialized and general museums, galleries, and educational and cultural organizations throughout the nation and is the sole official agency of the U. S. to circulate official exhibitions from abroad. The non-Federal operating budget for FY 1975 is $195,000, not including a projected $330,000 of special purpose gifts, grants, and contracts and $306,000 from Smithsonian Bicentennial program funds.

Approximately 5 million people view SITES exhibitions annually (upwards of 625 installations viewed by an average of 8,000 each). The Federal appropriations for this activity have enabled exhibition rental fees to be kept lower than would otherwise be possible. In FY 1973, exhibitions renting for over $200 numbered 72, while those costing under $200 numbered 29. In FY 1974, the first year the beneficial effect of the Federal appropriation was felt, the split was 52-52. In FY 1975, those renting for under $200 will rise to 68 and those over $200 will be 49. The lower rental fee enables smaller institutions to have access to exhibits.

Major progress is being made in developing the educational potential of SITES' shows. Now, more than ever before, exhibit workbooks and program suggestions are being developed to expand the benefit and worth of each show for exhibitors.

Two major programs have been undertaken by SITES to enhance Bicentennial opportunities for SITES' exhibitors. The first is directed toward making Smithsonian expertise and objects available nation-wide. The second is a means for the United States to host large exhibitions of foreign-origin during the Bicentennial. These two programs join SITES' basic program of 117 shows in circulation. Eventually, the

two new programs will double the total number of shows available. Special Bicentennial appropriations to the Smithsonian have made the first new program possible; a contract with the American Revolutionary Bicentennial Administration has enabled the second program to begin.

Number of Bookings Each State
(July 1, 1974 - December 31, 1974)

Alabama	7	Montana	0
Alaska	2	Nebraska	3
Arizona	3	Nevada	0
Arkansas	7	New Hampshire	9
California	23	New Jersey	14
Colorado	10	New Mexico	4
Connecticut	4	New York	59
Delaware	7	North Carolina	4
District of Columbia	9	North Dakota	1
Florida	17	Ohio	16
Georgia	3	Oklahoma	4
Hawaii	1	Oregon	4
Idaho	2	Pennsylvania	18
Illinois	21	Rhode Island	1
Indiana	18	South Carolina	11
Iowa	8	South Dakota	0
Kansas	17	Tennessee	12
Kentucky	3	Texas	39
Louisiana	7	Utah	3
Maine	3	Vermont	1
Maryland	8	Virginia	10
Massachusetts	17	Washington	6
Michigan	9	West Virginia	10
Minnesota	19	Wisconsin	13
Mississippi	13	Wyoming	0
Missouri	20		

Partial Listing of Available or Scheduled Exhibits

Exhibits Based on Smithsonian Collections

Suiting Everyone
American Agriculture: A Continuing Revolution
The Men and Machines of American Journalism
The Photographer at the Frontier
Prints from Wood
And the Band Played On.....
In the Minds and Hearts of the People
Blacks in the Westward Movement

Other Exhibits

Hey, Look at Me (D.C. Children's Art)
Solar Energy
Australia Goes Metric
Man in His Environment
In Quest of Cockaboody
Great American Scream Machine
(Roller Coaster)
Lion Rugs From Fars

SMITHSONIAN ARCHIVES

1974 Actual.....$157,000
1975 Estimate.....$175,000
1976 Estimate.....$191,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	10	0	10
11 Personnel Compensation.....	138	15	153
12 Personnel Benefits.....	12	1	13
21 Travel & Trans. of Persons...	2		2
25 Other Services.....	8		8
26 Supplies and Materials.....	4		4
31 Equipment.....	11		11
TOTAL	175	16	191
Analysis of Increase			
Necessary Pay.....		6	
Program Funds.....		10	

ABSTRACT - The Smithsonian Archives is the official memory of the Institution and a valuable research resource for scholars working in the history of American science and in the history of the cultural institutions which are under Smithsonian care. The Archives currently has control over six million documents and is developing intellectual control over several million additional documents held in research and curatorial areas.

The FY 1976 budget request proposes a program increase of $10,000 to fund an oral history program designed to document the history of the Smithsonian Institution. An amount of $6,000 is sought for necessary pay for existing staff.

PROGRAM - The Smithsonian Institution holds a unique collection of museum objects and archives for research and exhibition. Natural history specimens, art objects, and other collections are interpreted by archival documentation which supplements and explains them. Archival records of the Smithsonian's activities also attract historians and other scholars interested in science and art in the nation's capital from the 1830's to the present. Some six million documents are now in the central archives, while approximately ten million more under the care of the Archives remain spread throughout the Institution.

The Smithsonian Archives strives to achieve intellectual control over the vast and dispersed archival resources of the Institution amounting to several million documents. In calendar year 1974 the Archives completed records surveys of the National Museum of Natural History, the National Museum of History and Technology, and the Smithsonian Astrophysical Observatory. Systematic records retention schedules are being implemented for those bureaus; and an institution-wide records management program was started. Computerized control of archives was extended; and microfilming of the Institution's main accession file continued. Accessions totalled over one million documents, including the central files of the United States National Museum, 1902-1935; and the papers of A. Remington Kellogg, H. Helm Clayton, and Austin H. Clark.

JUSTIFICATION OF $10,000 INCREASE (Archives) - The Smithsonian Archives has developed an oral history program designed to document the history of the Smithsonian Institution and the history of the natural sciences in America. In order to continue and expand the program an oral historian and clerk-typist are needed half-time to conduct and transcribe the interviews.

NATIONAL MUSEUM ACT

1974 Actual.....$884,000 /1
1975 Estimate.....$802,000
1976 Estimate.....$767,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	3	0	3
11 Personnel Compensation.....	55	-11	44
12 Personnel Benefits.....	5	- 1	4
21 Travel & Trans. of Persons...	14	- 1	13
23 Rent, Comm. & Utilities.....	5	- 4	1
24 Printing and Reproduction....	6	- 3	3
25 Other Services.....	3	2	5
26 Supplies and Materials.....	2	- 1	1
31 Equipment.....	2	- 1	1
41 Grants.....	710	-15	695
TOTAL	802	-35	767
Analysis of Increase			
Necessary Pay.....		2	
Program Funds.....		-37	

ABSTRACT - The National Museum Act is a technical assistance program granting funds for specific proposals which advance the museum profession at large through training, research, publication, or professional assistance. Through these programs, museum personnel have the opportunity to receive training which was not available previously. A slight decrease from 1975 is due primarily to programmatic adjustments and reduced requirements for various services, supplies, and equipment. A net saving of $35,000 is projected.

PROGRAM - Public Law 93-345, approved July 12, 1974, reauthorized appropriations for the National Museum Act through FY 1977 and funding of $1,000,000 to the Smithsonian Institution each year. Of this amount, $800,000 was appropriated for FY 1975. Particular concern is expressed in the legislation for the needs of conservation in training, research, and coordination.

Funds appropriated to the Smithsonian Institution for the implementation of the National Museum Act are made available, through grants and contracts, to museums, professional associations, and universities. Such funding is determined by the National Museum Act Advisory Council appointed for this purpose by the Smithsonian Institution. The membership of the Advisory Council encompasses the principal museum disciplines--art, science, and history--and is broadly representative of all regions of the United States. The Council advises and assists the Secretary in determining priorities and assessing the quality of programs seeking support under the Act.

In the first half of FY 1975, 123 applications have been received. Only programs which demonstrate to the Advisory Council careful structure and sound administration receive support. The major aim of the National Museum Act is to provide opportunities for professional enhancement and research which can be demonstrated to be of usefulness

/1 Includes $100,000 each transferred to the National Endowment for the Arts and the National Endowment for the Humanities as required by PL 91-629. PL 93-345 eliminates this fund transfer requirement.

to museums. Through November 1974 a total of 32 projects have been approved in the amount of $325,000. The balance of this year's appropriation will be awarded at the March and June 1975 meetings of the Advisory Council. Grants awarded to date include: 12 travel fellowships to museum professionals to study techniques in museum management and programs; 5 awards for stipend support in college and university museum training programs; 13 grants to support short-term seminar/workshop training programs; and 2 special projects.

In the second half of FY 1975 new programs relating to conservation training and research were introduced. The staffs of the National Museum Act and of the Office of Museum Programs work closely with the National Conservation Advisory Council, funded by the Act, whose aim is to assess the nation's needs in conservation training, research, facilities, and the requirements that could be served by the creation of regional conservation centers. Particular emphasis is being given in these studies to define what form a "National Institute for Museum Conservation" might take, and whether such an organization could adequately serve the nation's needs.

JUSTIFICATION OF $37,000 DECREASE - The decrease in travel, part-time services, and equipment result in an overall budget adjustment of $37,000. The impact of the total reduction upon grants is expected to be nominal.

SMITHSONIAN INSTITUTION SPECIAL PROGRAMS

These special programs make use of total Institutional resources, including staff research competence, collections, and space for exhibits, to produce outstanding scholarship, exhibits and other presentations, and additional opportunities for public education. These special programs include:

--The American Revolution Bicentennial Program which will advance the Institution's efforts to celebrate and portray "The American Experience," the first two-hundred years of American history and what they may mean for the future.

--The Environmental Sciences Program which is designed to shed light on complex biological processes that need to be better understood before solutions to national ecological programs can be determined.

--The Major Exhibition Program which funds the design and production of exhibits of unusual national significance and timeliness.

--The Academic and Educational Programs offices which conduct interdisciplinary seminar series, coordinate educational programs for students at the elementary and secondary school level, and provide opportunities for outstanding pre- and post-doctoral investigators from across the nation to work under the supervision of the Institution's professional staff.

--The Research Awards Program which enables the Institution to fund expecially meritorious studies through a competitive selection process.

Full descriptions of these programs appear in the following sections of this budget.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

1974 Actual..... $1,745,000
1975 Estimate..... $3,847,000
1976 Estimate..... $4,256,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	2	0	2
11 Personnel Compensation.....	671	381	1,052
12 Personnel Benefits.....	50	38	88
21 Travel & Trans. of Persons..	105	94	199
22 Transportation of Things....	49	54	103
23 Rent, Comm. & Utilities.....	7	9	16
24 Printing and Reproduction...	430	184	614
25 Other Services.....	2,063	-377	1,686
26 Supplies and Materials.....	243	97	340
31 Equipment.....	215	-65	150
42 Insurance Claims & Indem....	14	-6	8
TOTAL	3,847	409	4,256
Analysis of Increase			
Necessary Pay.....		9	
Program Funds.....		400	

ABSTRACT - In less than three months, the official observance of America's 200th anniversary begins. At the Smithsonian, the date will be marked by the opening, on April 19, 1975, of the National Portrait Gallery's Bicentennial exhibition, "The Dye Is Now Cast: The Road to American Independence 1774-1776." The Institution, as a result of the continuing encouragement and support of the Congress since 1965, is well prepared for the Bicentennial period. Its program, under the general theme of The American Experience, includes twenty-three separate projects involving fifteen bureaus or divisions. Within the next eighteen months in Washington, thirteen major exhibitions and the new National Air and Space Museum will have opened. Some two hundred traveling exhibitions will be circulating throughout the country, and major scholarly publications in the fields of anthropology, art, and history will be published. Finally, during the summer of 1976, millions of visitors to Washington will see the Festival of American Folklife. The individual projects are now all in the final phases of production, and there is no increase in program funds required to complete these projects as scheduled. However, an increase of $400,000 in temporary program costs is requested to cover the non-recurring expenses of essential, temporary personnel and supplies to meet the demands of increased visitor loads during the peak spring and summer months of 1976. Necessary pay in the amount of $9,000 is also sought.

PROGRAM - The American Experience - FY 1976 Request:

A New Museum

The National Air and Space Museum*

Exhibitions in Washington

A Nation of Nations (National Museum of History and Technology)	$540,000
Ecology 200 - Our Changing Land (National Museum of Natural History)	--
1876 - A Centennial Exhibition (Arts and Industries Building)	360,000
Revolutionary Period Exhibitions (National Portrait Gallery)	150,000

Exhibitions in Washington (Cont.)

America as Art (National Collection of Fine Arts)	$ 65,000
Americas and Symbols in the City (Renwick Gallery)	99,000
The World's Artists and America* (Hirshhorn Museum & Sculpture Garden)	--
Arts of Asia* (Freer Gallery of Art)	--
The Federal City (Smithsonian Institution Building)	50,000
	$1,264,000

Traveling Exhibitions

Information and Exhibit Systems	$380,000
Object-oriented Exhibitions (Smithsonian Institution Traveling Exhibition Service)	200,000
Exhibits Design and Production Laboratory (Anacostia Neighborhood Museum)	50,000
	$630,000

Festival

Festival of American Folklife	$1,000,000

Major Scholarly Projects

Inventory of American Paintings Before 1914 (National Collection of Fine Arts)	$119,000
Catalogue of American Portraits* (National Portrait Gallery)	--
Bibliography of American Art (Archives of American Art)	45,000
Encyclopedia of North American Indians (Center for the Study of Man)	300,000
Sternwheeler Bertrand (National Museum of History and Technology)	75,000
The United States in the World (International Conference - Smithsonian Institution, American Studies Association, American Council of Learned Societies)	60,000
Kin and Communities: The Peopling of America* (Smithsonian Institution, American University)	--
	$599,000

Support

Visitor Orientation and Services for the Bicentennial Year	301,000
General Administration	84,000**
Protection	314,000
Buildings and Facilities Management	64,000
	$ 763,000
TOTAL	$4,256,000

*Not funded by Bicentennial appropriation.
** Includes necessary pay for temporary staff assigned to all projects.

JUSTIFICATION OF PROGRAM - A full description of the Smithsonian's Bicentennial program, project by project, is included in the supplement to this budget. FY 1976 will be the Smithsonian's final year of intensive effort toward realization of the Institution's Bicentennial program. As the projects, most of which are above and beyond the normal level of operations, are completed, the need for these special funds will decrease accordingly in FY 1977.

In this critical period leading to the timely openings of all Bicentennial exhibitions in Washington, D.C., and the preparation of most of the traveling exhibitions

as well as an expanded Festival of American Folklife, the largest need is for temporary manpower. Staffing considerably beyond normal level is essential to achieve increased production while maintaining the Smithsonian's regular program. An amount of $1,140,000 is requested for such personnel, and $1,686,000 for contractual services to accomplish needed work outside the Institution's capability. Funds will be used for temporary help in exhibits installation, Folklife Festival site construction, preparation of catalogues and other materials for publication, and general management and coordination. In addition, temporary guards and maintenance personnel will be hired during the peak spring and summer months in 1976 to meet the demand of larger crowds and extended hours of Smithsonian buildings not previously opened in the evenings.

An amount of $614,000 is requested for printing and reproduction. Half of this funding will support the continued composition process and printing of the twenty-volume Encyclopedia of North American Indians. The remaining funds will support the printing of seven major catalogues and additional educational materials and publications related to the Bicentennial exhibitions, as well as visitor orientation and information brochures.

For all projects, additional supplies and materials are needed. Borrowed objects for exhibitions must be transported to Washington, D.C. and insured. Special equipment must be acquired for use in exhibitions, for the Festival presentation, and for crowd control. Funding of $617,000 is requested for these purposes.

Finally, $199,000 is requested for transportation of persons. More than one-half of this request is for the final research phases and for participant-travel required for the Festival of American Folklife. Another one-fourth will support travel costs for participants in the International Bicentennial Conference, "The United States in the World". These are one-time non-recurring costs. The remaining funds will support research, travel required to maintain the security of borrowed objects, and the management of traveling exhibitions.

ENVIRONMENTAL SCIENCES PROGRAM

1974 Actual.....$190,000
1975 Estimate.....$189,000
1976 Estimate.....$193,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	2	0	2
11 Personnel Compensation.....	112	4	116
12 Personnel Benefits.....	10		10
21 Travel & Trans. of Persons...	14		14
25 Other Services.....	36		36
26 Supplies and Materials.....	7		7
31 Equipment.....	10		10
TOTAL	189	4	193
Analysis of Increase			
Necessary Pay.....		4	
Program Funds.....		0	

ABSTRACT - The Environmental Sciences Program (ESP) was established in FY 1971 to provide coordinated environmental research at the Smithsonian. A plan has been developed to assemble and analyze biological and physical data on specific important ecosystems to predict the consequence of environmental change. Two Smithsonian research facilities, the Smithsonian Tropical Research Institute (STRI) in Panama and

the Chesapeake Bay Center for Environmental Studies (CBCES), are the principle sites being used to carry out these studies. No program increase is requested in FY 1976. Funding in the amount of $4,000 is sought for necessary pay.

PROGRAM - The Environmental Sciences Program administers a long-range, multi-bureau study of natural fluctuations in several different ecosystems. The Smithsonian is particularly suited to undertake this type of research as a result of the range of disciplines represented in the various bureaus, its large collections of plants and animals with detailed distribution and abundance data, and its control over permanent and protected field-research sites in both temperate and tropical zones. Staff resources consist of specialists from several Smithsonian science bureaus--STRI, CBCES, the Radiation Biology Laboratory, the National Museum of Natural History, and the National Zoological Park, as well as from several universities.

A study is now being conducted in three contrasting environments: a tropical forest on Barro Colorado Island, an intertidal coral reef at Galeta Point (both STRI reserves in Panama) and a temperate estuary and its watershed in the Rhode River (CBCES). At each site, a number of physical, chemical, and biological factors which vary with time and which together indicate stability, predictability, and variability of each environment are routinely measured. During FY 1974 special attention was given to evaluating results and casting preliminary models of the data. The first data bank report displaying monitoring results for calendar year 1973 has been published. The 1974 results are now in preparation. A heavy emphasis was placed in 1974 and will continue to be placed in 1975 upon systems analysis of the data and construction of biological models. The ESP is not independent of other research at the various sites. It supplies environmental data to other projects and uses data collected by them. This cooperation is essential because the range of subjects being studied demands an interdisciplinary approach.

MAJOR EXHIBITION PROGRAM

1974 Actual.....$103,000
1975 Estimate.....$ 80,000
1976 Estimate.....$260,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	0	0	0
21 Travel & Trans. of Persons...		3	3
22 Transportation of Things.....		3	3
25 Other Services.....	73	181	254
41 Grants.....	7	-7	
TOTAL	80	180	260
Analysis of Increase			
Necessary Pay.....		0	
Program Funds.....		180	

ABSTRACT - The major permanent exhibitions of the Smithsonian Institution are nationally and internationally recognized as among the best examples of public communication and education in the museum world. The Major Exhibition Program has as its purpose the production of such exhibitions that will supplement the regular exhibits programs of the museums. The "Benefits from Flight" exhibit was initially designed in FY 1974 with design continuing in FY 1975. An increase of $180,000 is sought in FY 1976 to complete this exhibit which will be displayed in the new National Air and Space Museum building.

PROGRAM - The "Benefits from Flight" exhibit will present the many benefits that have accrued to man and society since the advent of powered flight. The scope of this exhibition has been broadened, from the earthbound benefits of space flight alone, to encompass the consequences of air and space flight which have emerged over the course of this century. The development of this exhibit has required a substantial research effort intended to assess critically the scientific, technological, economic, historical, and social dimensions of selected benefits. That research, now in the process of completion, has combined the resources and talents of the Smithsonian curatorial staff, two graduate students supported by Smithsonian cooperative fellowships, and three contracted non-profit research firms. With the impending completion of documentation, the level of research effort has gradually decreased. Concomitant exhibit design has begun in coordination between the curatorial and design staffs of the Smithsonian and an outside design firm. Production will begin in early fiscal 1976.

The thematic structure of the hall, mirrored in its preliminary design, establishes the relationships among air and space research, development and operations, and the persons to whom the results of these activities accrue.

The most significant benefits which have emerged in the historical development of air and space are those directly associated with flight: high-speed personnel transportation, staple supply and disaster relief, airborne defense and reconnaissance, satellite monitoring of earth conditions and resources, relay of information, and basic scientific knowledge. Our view also includes the broader social impact: flight in the arts and in popular culture, flight as a homogenizing and educating influence, and flight as a source of entertainment, for example.

The high technology associated with, and nurtured within, the aerospace industry has been and continues to be adapted to serve many other needs of our society. The exhibit will also explain how these needs are met through the transfer of aerospace technology to ground-based applications in medical, transportation, public service, managerial, and manifold other segments of society.

JUSTIFICATION OF $180,000 INCREASE (Exhibits) - FY 1976 will be the year for fabrication and installation of this exhibit. This will be the final installment on this exhibit. With the $183,000 already obligated, this major exhibit will cost a total of $443,000.

ACADEMIC AND EDUCATIONAL PROGRAMS

1974 Actual.....$642,000
1975 Estimate.....$620,000
1976 Estimate.....$626,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	11	0	11
11 Personnel Compensation.....	164	6	170
12 Personnel Benefits.....	13		13
21 Travel & Trans. of Persons...	6		6
23 Rent, Comm. & Utilities.....	3		3
24 Printing and Reproduction....	27		27
25 Other Services.....	401		401
26 Supplies and Materials.....	4		4
31 Equipment.....	2		2
TOTAL	620	6	626
Analysis of Increase			
Necessary Pay.....		6	
Program Funds.....		0	

ABSTRACT - A major Smithsonian objective is to make its resources for learning available to the formal education community and to the general public. These efforts take the form of programs in higher education, advanced studies, and offerings at the elementary and secondary education level. No program increase is sought for FY 1976. Funds in the amount of $6,000 are sought for necessary pay for the existing staff.

PROGRAM - Since 1965 as a major part of its higher education programs the Smithsonian has offered fellowship support to 228 Ph.D. candidates and to 221 post-doctoral investigators to enhance their ability as scholars and teachers through collaboration and study with the Institution's research staff. Over 498 undergraduate and first and second-year graduate students have been offered the opportunity to consult the Institution's research staff and collections for short periods. Administered by the Office of Academic Studies, these opportunities are extended both to strengthen the research capabilities of the Smithsonian and to make available to the scholarly and scientific community the Institution's specialized resources. Its effectiveness derives from close cooperation with the nation's universities and colleges, which welcome opportunities for their students to receive specialized Smithsonian training that their own facilities cannot provide.

The Office of Smithsonian Symposia and Seminars is responsible for the Smithsonian's International Symposia Series, its biennial program of public activities centering on a single theme of contemporary importance, from which are published the collected original papers presented and other relevant materials. In 1974 The Cultural Drama: Modern Identities and Social Ferment was published. This was based in part on the fourth International Symposium held in 1970. Scheduled for publication in spring 1975 is The Nature of Scientific Discovery, based on the fifth symposium held in April 1973. The office now is planning the sixth and seventh in the symposia series, both under the Bicentennial program. "Kin and Communities: The Peopling of America" will be held in June 1976 to coincide with the opening of the Festival of American Folklife and in liaison with "A Nation of Nations," a Smithsonian Bicentennial exhibit. This symposium will reflect on the role of family institutions and communities in shaping the nation during its first two hundred years and as continuing links to African, Asian, European, and other cultures which have enriched American civilization. "The United States in the World," planned as the seventh symposium, will be held in September 1976. It will provide an examination by scholars and writers (including about 200 from other countries) of the far-reaching influences of the American synthesis of Old World cultural patterns, including those of the American Indians, and the interaction between the mosaic culture of the U. S. and other societies.

The Office of Elementary and Secondary Education coordinates the education programs which are now located directly in the museums. The office prepares publications, audio-visual aids, and other educational materials, directed at pre-college students and their teachers. It also serves as the liaison between the Smithsonian and the D.C. Metropolitan area schools, conducting workshops for over two thousand area teachers in FY 1975. The office is active with area schools in developing special outreach projects. FY 1975 brought the development of outreach kits with both Fairfax County, Virginia and Montgomery County, Maryland teachers. Through regularly scheduled training activities, assistance is provided to the Smithsonian docent program with particular emphasis on teaching methodologies.

SMITHSONIAN RESEARCH AWARDS PROGRAM

1974 Actual.....$450,000
1975 Estimate.....$450,000
1976 Estimate.....$450,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	0	0	0
41 Grants.....	450	0	450
TOTAL	450	0	450
Analysis of Increase			
Necessary Pay.....		0	
Program Funds.....		0	

ABSTRACT - The Research Awards Program finances special research projects which cannot be supported from the regular budgets of the bureaus. Since 1966, 280 proposals have been funded through this program, and more than 200 publications which are directly related to the research have been produced. No program fund increase is being requested for FY 1976.

PROGRAM - Prior to FY 1966, the Smithsonian received funds from the National Science Foundation (NSF) for special research projects of individual staff members. In 1964, the Congress prohibited the NSF from making grants for scientific research to other Government agencies. The NSF instituted a further limitation that it would no longer make grants to any agency or institution receiving direct Federal appropriations. The Research Awards Program was begun in FY 1966 by an appropriation of $350,000 to the Smithsonian Institution for the purpose of financing new or continuing research projects formerly eligible for support from NSF.

Proposals are submitted each year by members of the Smithsonian Institution staff to support new and innovative research. All proposals have undergone a careful scientific or scholarly review in their respective bureaus before they are reviewed by an advisory committee of scientists from outside the Institution. Projects are selected on the basis of their showing an imaginative and exciting approach to research and scholarship efforts that could not normally be carried out with regularly budgeted departmental funds.

The work supported by the Research Awards Program is often the best of the Institution's productivity and the reason for acquiring professional staff of the highest competence and imagination. Further, the program provides an opportunity for researchers to engage in collaborative field research with colleagues located in other institutions. Many opportunities for participation in expeditions and other field projects would be lost were it not for the Research Awards Program providing funding assistance. Some recent accomplishments of this research are: better understanding of the nature of volcanic eruptions; help in unraveling the very early history of the earth through work on the chemistry and mineralogy of ancient rocks discovered in West Greenland; and possible improvement of the local food supply in developing countries as a result of the identification of a specialized bee necessary for effective pollination.

In FY 1975, members of the Smithsonian staff again submitted proposals for funding up to three years in order to provide for better stability, continuity, and planning of research. Of the sixty-one proposals received for FY 1975 amounting to $1,316,402, forty were funded in the amount of $450,000. It is intended that the program will operate at this level in FY 1976.

OFFICE OF THE SECRETARY

1974 Actual..... $654,000
1975 Estimate..... $753,000
1976 Estimate..... $779,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	29	0	29
11 Personnel Compensation.....	572	24	596
12 Personnel Benefits.....	49	2	51
21 Travel & Trans. of Persons..	8		8
23 Rent, Comm. & Utilities.....	17		17
24 Printing and Reproduction...	2		2
25 Other Services.....	71		71
26 Supplies and Materials.....	18		18
31 Equipment.....	16		16
TOTAL	753	26	779
Analysis of Increase			
Necessary Pay.....		26	
Program Funds.....		0	

ABSTRACT - The Office of the Secretary is responsible for planning, implementing, and reviewing the progress of all Smithsonian operations. No program increase is sought. An additional amount of $26,000 is being sought for necessary pay for current staff.

PROGRAM - I. Immediate Office of the Secretary including Secretary's Files and Office of the Under Secretary: With 18 positions and $490,000 the Office of the Secretary plans, implements, and reviews the progress of all Smithsonian operations.

II. Other: The remainder of the funding identified for this office, 11 positions and $289,000 support the Director of Support Activities, the Travel Services Office, and the Curator of the Smithsonian Institution Building.

The Director of Support Activities directs and reviews the Support Activities Group. This group includes the Office of Personnel Administration, Office of Equal Opportunity, Office of Supply Services, Information Systems Division, Management Analysis Office, Office of Protection Services, Office of Facilities Planning and Engineering Services, Office of Plant Services, Office of Printing and Photographic Services, and Travel Services Office.

The Travel Services Office assists official Smithsonian travelers in developing domestic and foreign travel plans, estimating costs, and planning the most economical routing in keeping with Government and Smithsonian Institution regulations.

The Curator of the Smithsonian Institution Building is responsible for the exhibits in this old building and the furnishing of the public and office spaces in the style furniture that was in vogue at the time of its construction.

JUSTIFICATION OF $46,000 INCREASE (General Administration) - Accounting transactions continue to increase as the level of office and bureau activities increase and diversify. To cope with a rising workload, the accounting division has taken many actions to improve efficiency and effectiveness. For example, in FY 1975, the division put into operation a direct key-to-disk automated data entry system for use in vouchering and paying accounts. Its installation culminated several months of systems analysis and design, including integration with the Smithsonian's central computer, equipment selection, and orientation and training of employees. The division has also been successful in persuading frequent vendors to consolidate many separate billings per month into a single bill. These two innovations have resulted in the elimination of repetition in handling payment documents, reduction of volume and errors, and faster payment of invoices. Furthermore, the division has established a system of employees' time and attendance reporting which eliminates the bi-monthly keypunching of over 3,000 time cards. The new system utilizes an optical mark scanner to record special light sensitive pencil insertions. Incidence of error has been markedly reduced.

Nevertheless, to realize the full capabilities of the newly installed equipment, all segments of accounting operations must be reviewed and additional applications devised to achieve further automation. A systems accountant ($20,000) is requested to provide combined technical and procedural support in order to: identify the accounting routines in need of automation; develop systems to effect automatic scheduling, projection, and accrual functions; integrate these systems with the Institution's central computer; and write an operations handbook on resulting updated procedures.

Smithsonian special programs, including the upcoming Bicentennial effort, require almost continual support from the accounting division to handle increased transactions, vendor inquiries, and requests for customized reports by offices and bureaus. For example, the several thousand expected participants in the summer-long Bicentennial Folklife Festival will generate many payment and accounting transactions. A technician ($11,000) is sought to oversee the day to day financial activities of these special programs and to assist the requested systems accountant in installing accounting systems innovations.

An amount of $5,000 is requested for automated data processing, photocopier, and telecopier equipment rental. An additional amount of $10,000 is sought to meet the rising cost of computer paper and usage.

OFFICE OF THE TREASURER

1974 Actual.....$915,000
1975 Estimate.....$722,000
1976 Estimate.....$871,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	34	2	36
11 Personnel Compensation.....	536	45	581
12 Personnel Benefits.....	45	89	134
21 Travel & Trans. of Persons...	3		3
23 Rent, Comm. & Utilities.....	94	15	109
24 Printing and Reproduction....	10		10
25 Other Services.....	17		17
26 Supplies and Materials.....	15		15
31 Equipment.....	2		2
TOTAL	722	149	871
Analysis of Increase			
Necessary Pay.....		103	
Program Funds.....		46	

ABSTRACT - The Office of the Treasurer provides financial management assistance and technical services to the Smithsonian. The postage indicia costs previously reflected in this office's budget are now shown (as of July 1, 1974) under the Office of Plant Services.

An increase of 2 positions and $46,000 is requested to meet the following support needs: 1 position ($20,000) to aid in the conversion from a manual to a computerized accounting system; 1 position ($11,000) to assist in financial and reporting efforts directed towards the Bicentennial and other special programs; and an amount of $15,000 for the rental of automated data entry, photocopier, and telecopier equipment and for the cost of computer usage. In addition, $103,000 is requested for necessary pay, $85,000 of which is for Workmen's Compensation payments.

PROGRAM - The Office of the Treasurer is composed of the Treasurer's immediate office, the office of programming and budget, the accounting division, and the grants and insurance administration division.

The immediate Office of the Treasurer provides overall direction for financial planning, budgeting, investment policy, accounting, reporting, and insurance, grant, and contract administration.

The accounting division is responsible for developing, implementing, and maintaining financial accounting and payroll systems; performing financial analyses and reporting; and operations including payroll, accounts payables and receivables, and related data processing.

The office of programming and budget is responsible for the planning, formulation, and agency-level presentation of estimates to the Office of Management and Budget and the Congress, and the execution and review of the Institution's Federal budget. It also prepares non-appropriated fund budgets for presentation to the Treasurer, Under Secretary, Secretary and Board of Regents and monitors their execution during the year.

The grants and insurance administration division which is financed with non-appropriated funds is responsible for the administration of contracts and grants from other institutions and agencies and for the administration of risk management programs.

JUSTIFICATION OF $46,000 INCREASE (General Administration) - Accounting transactions continue to increase as the level of office and bureau activities increase and diversify. To cope with a rising workload, the accounting division has taken many actions to improve efficiency and effectiveness. For example, in FY 1975, the division put into operation a direct key-to-disk automated data entry system for use in vouchering and paying accounts. Its installation culminated several months of systems analysis and design, including integration with the Smithsonian's central computer, equipment selection, and orientation and training of employees. The division has also been successful in persuading frequent vendors to consolidate many separate billings per month into a single bill. These two innovations have resulted in the elimination of repetition in handling payment documents, reduction of volume and errors, and faster payment of invoices. Furthermore, the division has established a system of employees' time and attendance reporting which eliminates the bi-monthly keypunching of over 3,000 time cards. The new system utilizes an optical mark scanner to record special light sensitive pencil insertions. Incidence of error has been markedly reduced.

Nevertheless, to realize the full capabilities of the newly installed equipment, all segments of accounting operations must be reviewed and additional applications devised to achieve further automation. A systems accountant ($20,000) is requested to provide combined technical and procedural support in order to: identify the accounting routines in need of automation; develop systems to effect automatic scheduling, projection, and accrual functions; integrate these systems with the Institution's central computer; and write an operations handbook on resulting updated procedures.

Smithsonian special programs, including the upcoming Bicentennial effort, require almost continual support from the accounting division to handle increased transactions, vendor inquiries, and requests for customized reports by offices and bureaus. For example, the several thousand expected participants in the summer-long Bicentennial Folklife Festival will generate many payment and accounting transactions. A technician ($11,000) is sought to oversee the day to day financial activities of these special programs and to assist the requested systems accountant in installing accounting systems innovations.

An amount of $5,000 is requested for automated data processing, photocopier, and telecopier equipment rental. An additional amount of $10,000 is sought to meet the rising cost of computer paper and usage.

OFFICE OF PERSONNEL ADMINISTRATION

1974 Actual..... $535,000
1975 Estimate..... $638,000
1976 Estimate..... $658,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	33	0	33
11 Personnel Compensation.....	546	18	564
12 Personnel Benefits.....	47	2	49
21 Travel & Trans. of Persons...	3		3
23 Rent, Comm. & Utilities.....	6		6
25 Other Services.....	31		31
26 Supplies and Materials.....	4		4
31 Equipment.....	1		1
TOTAL	638	20	658
Analysis of Increase			
Necessary Pay.....		20	
Program Funds.....		0	

ABSTRACT - The Office of Personnel Administration develops and implements policy on matters related to manpower planning and managerial development. No increase in program funds is requested for FY 1976. Funding in the amount of $20,000 is sought for necessary pay for existing staff.

PROGRAM - Among the services provided by the Office of Personnel Administration are manpower analysis, recruitment and placement, compensation programs, consultant services, training and career development, employee relations, labor-management relations, and special responsibilities in assuring equal opportunity. In addition, the Office bears responsibility for the implementation of new laws or policy, such as the Fair Labor Standards Act, Public Law 93-259.

In FY 1975, each of the major program areas has experienced an increase in activity deriving from the general growth of the Institution. Over 1,000 personnel actions (promotions, separations, within-grade increases, appointments, etc.) are processed each year. Major efforts have been directed towards the negotiation of a labor relations contract, staffing and placement for the new Hirshhorn Museum and improvement of recruitment procedures for guard positions. In addition, emphasis is being placed on updating personnel policies and procedures and expanding career opportunities for employees through increased specialized training. In FY 1975, approximately 30 in-house training classes will be offered in typing, shorthand, the role of supervisors in equal employment opportunity, sexual assault prevention, secretarial and telephone techniques, dealing effectively with people, and executive development. More than 900 employees are anticipated to participate in these courses. In addition, approximately 950 employees are expected to attend courses in all areas of employee development offered by other organizations and institutions.

OFFICE OF AUDITS

1974 Actual.....$170,000
1975 Estimate.....$177,000
1976 Estimate.....$197,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions..	7	1	8
11 Personnel Compensation.....	156	18	174
12 Personnel Benefits.....	14	2	16
21 Travel & Trans. of Persons..	5		5
25 Other Services.....	1		1
26 Supplies and Materials.....	1		1
TOTAL	177	20	197
Analysis of Increase			
Necessary Pay.....		6	
Program Funds.....		14	

ABSTRACT - The Institution's size, diversity, and variety of funding sources create a large volume of essential auditing assignments. Since its establishment, the Office of Audits has made important contributions to effective management. An increase of one position and $14,000 will improve the office's capability to reach its goal of a reaudit every five years. An amount of $6,000 is needed for necessary pay.

PROGRAM - The Office of Audits, established in FY 1970, is responsible for performing all internal auditing functions of the Smithsonian Institution. In order to ensure the utilization of effective management practices, it is the policy of this office to audit all principal programs, including administrative, financial and supporting programs, during each five-year period. Recent audits have included the National Museum Act, the Exhibits activities in the bureaus as well as Exhibits Central, the Travel Services Office, Chesapeake Bay Center, and the Smithsonian Tropical Research Institute. The results of these audits have been some monetary savings (applying the automatic pay feature to teleticketing and savings on car rentals), to better management, and improved procedures.

JUSTIFICATION OF $14,000 INCREASE (General Administration) - With more than fifty Federal operating units, programs, and staff offices, several major appropriation accounts (totalling over $92 million in FY 1975), and several private activities and a wide variety of other funds, there is a large volume of auditing to be done. With the current staff of 7 auditors, it will take another two years to complete the first audit cycle of all principal Smithsonian programs. Therefore, instead of reauditing every five years, the office will be on a seven-year cycle. It is estimated that it would take a total of ten auditors to enable the five-year reaudit program to become a reality. An additional auditor ($14,000) is requested to help meet this total staff requirement.

OFFICE OF EQUAL OPPORTUNITY

1974 Actual.....$114,000
1975 Estimate.....$109,000
1976 Estimate.....$170,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	5	2	7
11 Personnel Compensation.....	97	36	133
12 Personnel Benefits.....	9	3	12
21 Travel and Trans. of Persons.	1	1	2
23 Rent, Comm. & Utilities.....		1	1
24 Printing and Reproduction....		2	2
25 Other Services.....	1	17	18
26 Supplies and Materials.....	1		1
31 Equipment.....		1	1
TOTAL	109	61	170
Analysis of Increase			
Necessary Pay.....		4	
Program Funds.....		57	

ABSTRACT - The Office of Equal Opportunity (OEO) works to assure equality of opportunity in employment and in all policies and practices of the Institution. Several current programs involve the development and better utilization of the skills of minority employees, an improved communication system for handling grievances, improvement of women's career advancement opportunity and an upward mobility program. A program increase of 2 positions and $57,000 is requested to further implement these programs. An amount of $4,000 is being requested for necessary pay.

PROGRAM - The Equal Opportunity Program, established by Executive Order 11246 and further implemented by the "Equal Employment Opportunity Act of 1972," enacted as Public Law 92-261, requires the Smithsonian to conduct a positive action program which will provide true equality in all Smithsonian employment practices. It is the responsibility of the Office of Equal Opportunity to conduct such a program. Three major efforts currently underway include counseling, upward mobility, and the equal employment status of women.

The counselor program provides a channel through which employees may raise questions, discuss grievances, and receive resolutions of problems on an informal basis. Twenty-five permanent employees with other assigned duties have been trained as part-time equal employment counselors who assisted 162 persons in FY 1974.

The upward mobility program strives to ensure each employee the opportunity to seek and achieve his highest potential and productivity in employment situations with special emphasis being focused on employees at the lower levels of employment. Innovative ideas concerned with minority group training at the lower grade levels to correct inadequate education are currently being applied in several museum and support organizations. Additionally, within the upward mobility program is the overseeing of civil rights compliance with direct assistance programs and contracts and grants to ensure that the recipients practice equal opportunity. Six upward mobility programs are now operating in the National Museum of Natural History, Office of Plant Services, Protection Services, the Freer Gallery, National Air and Space Museum, and the National Museum of History and Technology.

The women's coordinator program functions as the principal advisory service to management on all matters pertaining to the equal employment status of women. A Women's Week was held in FY 1974 and FY 1975. Additionally, a women's orientation training activity was presented at the Smithsonian Astrophysical Observatory as an augmented feature to the guidance and operational facilities available to the Smithsonian Women's Council.

The 16 point program coordinator (again a regular employee who has accepted extra duties) serves as the focal point within the Smithsonian for advising agency management and the Director of OEO on the special employment concerns of Spanish-speaking citizens, assists in assessing the Spanish-surnamed employment situation, and participates in eliminating systemic barriers for Spanish-speaking citizens.

The OEO provides heads of bureaus, offices, and major organizations statistical reports on the racial and sex composition of respective work forces. Areas are noted that are out of balance and assistance is given to correct such situations, including the development of goals in areas where imbalance is reflected.

JUSTIFICATION OF $57,000 INCREASE (General Administration):

An Institution-wide upward mobility program is needed to provide greater opportunities to the Institution's employees in dead-end or otherwise unsatisfying jobs. Presently upward mobility programs are operating in six bureaus, but these programs are offering this training to only nine employees. An upward mobility coordinator and an assistant ($35,000) are needed to develop the Institution-wide plan, have it approved by the Civil Service Commission, and implement the plan. During the operational phase of this program, each of the employees will oversee the training of 35 to 40 employees. The program as it is now envisioned will include both on the job training and class work. Each program will be three years and during this time the OEO staff will counsel the employee, follow up with the on the job supervisors and evaluate both the training and the trainee. Funds are requested to finance training at non-Smithsonian facilities and to finance on-site education opportunities for this program ($10,000).

Funds in the amount of $12,000 are requested for other programs of this office. These funds will be used to enlarge the women's program, train additional counselors as well as replacement counselors, and for computer reports needed by both Smithsonian officials and the Civil Service Commission.

OFFICE OF PRINTING AND PHOTOGRAPHIC SERVICES

1974 Actual.....$779,000
1975 Estimate.....$816,000
1976 Estimate.....$858,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	39	1	40
11 Personnel Compensation.....	545	39	584
12 Personnel Benefits.....	44	3	47
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	8		8
24 Printing and Reproduction....	26		26
25 Other Services.....	60		60
26 Supplies and Materials.....	107		107
31 Equipment.....	24		24
TOTAL	816	42	858
Analysis of Increase			
Necessary Pay.....		23	
Support Funds.....		19	

ABSTRACT - The Office of Printing and Photographic Services is the Institution's central office for technical advice, guidance, and production in all matters concerning photographic, duplicating, and in-house printing services. The office coordinates photographic and printing activities and supplies technical support to the curatorial, scientific, technical, and administrative staffs. It also provides photographs, slides, and transparencies with lectures to the general public, schools, research foundations, educational publications, other museums, and government agencies. A support increase of 1 position, an assistant to the director ($19,000), is requested in FY 1976. An additional $23,000 is sought for necessary pay.

PROGRAM - The Office of Printing and Photographic Services (OPPS) provides photographic, printing, and other reproduction services. Its services are in support of research, collections management, and public education. Photographic services include studio and on-site photography, photographic copy restoration, processing and printing, filing and retrieval of negatives, preparing responses to public inquiries, and filling orders.

Printing and reproduction services include the production of certain exhibits catalogues, education pamphlets, and informative leaflets. In addition, OPPS prints and reproduces a variety of manuals, reports, specimen labels, and administrative directives. These services are accomplished by utilizing in-house multilith, photostatic copier, and letterpress equipment.

JUSTIFICATION OF $19,000 INCREASE - The consolidation of the Office of Photographic Services and the Duplicating Section in FY 1974 has resulted in increased emphasis on scheduling, production, quality control, and personnel and space management. Serious backlogs currently exist, however, in the photographic library and processing units resulting in delays in filling staff and public orders. These backlogs and delays result from the absence of written production schedules and procedures and from a deficient system of filing and retrieval of valuable negatives and transparencies.

An assistant to the director ($19,000) is requested to establish and maintain a positive system of production control and to draft and implement policies and procedures on proper care, storage, and retrieval of negatives, transparencies, and other photographic material.

INFORMATION SYSTEMS DIVISION

1974 Actual.....$381,000
1975 Estimate.....$461,000
1976 Estimate.....$502,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	23	2	25
11 Personnel Compensation.....	378	35	413
12 Personnel Benefits.....	32	3	35
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	5		5
25 Other Services.....	37	2	39
26 Supplies and Materials.....	2	1	3
31 Equipment.....	5		5
TOTAL	461	41	502
Analysis of Increase			
Necessary Pay.....		15	
Program Funds.....		26	

ABSTRACT - Computer specialists, mathematicians, statisticians, and support personnel of the Information Systems Division (ISD) participate in the development and application of mathematical techniques such as statistical analysis, mathematical modeling, data reduction and cluster analysis, for research projects and automated administrative and collections management systems. An increase of 2 positions and $26,000 is requested in FY 1976 to meet the following support needs: (1) an additional mathematician ($12,000) and support funds ($1,000) to meet an increasing demand for mathematical and statistical analysis assistance by curators and researchers in the areas of historical, biological, chemical, and geological research; and (2) a computer specialist ($11,000) and support funds ($2,000) to permit expanded use of ADP in the collections management and administrative areas. An additional amount of $15,000 is requested for necessary pay.

PROGRAM - Computer specialists, mathematicians, and support personnel in ISD work with curators, historians, scientists, and management personnel to apply mathematical techniques to research problems and to develop automated administrative and collections management systems. Approximately 75 percent of the Division's resources are being expended in support of research and collections management while the remainder is used on management support functions. Work performed by ISD contributes annually to producing information that is published in approximately 100 scientific publications

Presently, to reduce development costs, scientific and collections management computer programs are being developed that can be utilized in many areas with minor modifications. The Division maintains a computer program library containing 350 active programs and is currently serving researchers, curators, and administrators throughout the Institution. The Smithsonian's main collections management system, SELGEM, has been distributed to 54 universities, government agencies, and other museums, representing valuable assistance to those institutions.

JUSTIFICATION OF $26,000 INCREASE (Automatic Data Processing):

Scientific Research Applications - An increasing demand for mathematical and statistical analysis assistance by curators and researchers in the areas of historical, biological, chemical, and geological research has placed current resources under a

constant strain. Seven departments in the National Museum of Natural History and ten other bureaus are major users of these resources. Projects vary from the application of mathematical/statistical techniques to solve day-to-day research needs, to reducing large quantities of data from the electron microprobe equipment, to portraying research information in a graphic form. During FY 1976, the present staff of 4 will be involved with projects such as those concerned with ecological studies in temperate, semi-tropical and tropical regions of the world, analyses of ocean crust data, and modeling of terrestrial and lunar geology with data from joint American-Soviet scientific satellite missions.

The Institution initiated a study several years ago to develop data for a five-year ADP plan for the planning and efficient allocation of resources. This plan, which is updated annually, is based upon historical experience and projected needs in all areas of ADP usage. Based upon the recent update, a backlog of five man-years of effort is projected for FY 1976 in the area of research applications. Since it is estimated a mathematician can complete approximately two projects per month, this backlog is equivalent to approximately 120 projects. Backlogged projects will extend across the entire museum complex from art and anthropology to zoology. Additional staffing of 1 mathematician ($12,000) and support funds of $1,000 for equipment, supplies, training and computer time will reduce the projected backlog for FY 1976 to 4 man-years.

Collections Management and Administrative Applications - The SELGEM system is rapidly becoming recognized as a standard for the computerized management of collections. Current SELGEM development is centered on reducing processing costs and extending application of the system throughout the various museums to provide automated retrieval and indexing of data pertaining to the National Collections. Results benefit the professional staff by providing catalogues, cross-referencing indices by categories, correlation of data, better inventory control, and a future vehicle for responding to technical and non-technical queries by the research community or general public. Automated files now permit curators, researchers, and scientists to analyze, present, and interpret their data in ways that were impractical with manual files. The system also allows for an economical means of exchanging data via magnetic tape without physically transporting specimens or visiting other locations. In FY 1976, 7 man-years of effort is available for systems analysis, computer programming, program maintenance, documentation, and customer liaison in the collections management area.

To date approximately 2,000,000 specimens have been indexed into 292 distinct collections management files and 260 various processing requests are performed monthly against those files. From past experience it is estimated that 30 to 35 percent of a computer specialist's time is devoted to continual maintenance and liaison once a project is considered in production. Based upon the aforementioned five-year resource study a backlog of 4 man-years is projected for the collections management applications in FY 1976.

Administrative applications of ADP resources involve areas such as payroll, personnel, libraries, accounting, supply, public service, and plant and protection services. The 6 man-years of effort available to the above areas for systems analysis computer programming, program maintenance, documentation, and customer liaison, is projected to result in a 3 man-year backlog of work by FY 1976. Of major concern is the Institution's need to expand the use of ADP to energy conservation, facilities management, remote job entry processing, source data automation, teleprocessing, and security. The application of ADP to these areas will be of benefit to the entire Institution.

Staffing of 1 computer specialist ($11,000) and support funds of $2,000 for equipment, supplies, training, and computer time is requested to assist in reducing the backlogs in the collections management and administrative areas.

OFFICE OF SUPPLY SERVICES

1974 Actual.....$437,000
1975 Estimate.....$492,000
1976 Estimate.....$504,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	25	0	25
11 Personnel Compensation.....	310	11	321
12 Personnel Benefits.....	25	1	26
21 Travel & Trans. of Persons...	2		2
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction....	1		1
25 Other Services.....	9		9
26 Supplies and Materials.....	132		132
31 Equipment.....	3		3
TOTAL	492	12	504
Analysis of Increase			
Necessary Pay.....		12	
Program Funds.....		0	

ABSTRACT - The Office of Supply Services procures supplies, materials, contractual services, and equipment for Smithsonian activities. No increase in program funds is sought for FY 1976. Funding in the amount of $12,000 is sought for necessary pay for existing staff.

PROGRAM - The Office of Supply Services procures supplies, materials, contractual services, and equipment for research, curatorial, exhibit preparation, and other Smithsonian activities. It stocks and issues office and other supplies required in daily management operations and serves as a central receiving unit for the Institution. It operates a property management program, obtaining excess property in lieu of new procurement whenever possible. This Office also maintains all property records and schedules and oversees periodic inventories to insure adequate control, accountability, security, and utilization of equipment. In FY 1974, an estimated 500 contracts valued in excess of $10,000,000 and approximately 8,700 procurement actions valued in excess of $14,000,000 were handled by this office. Present information indicates an appreciable increase in workload in FY 1975.

MANAGEMENT ANALYSIS OFFICE

1974 Actual.....$190,000
1975 Estimate.....$215,000
1976 Estimate.....$222,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	10	0	10
11 Personnel Compensation.....	184	6	190
12 Personnel Benefits.....	16	1	17
23 Rent, Comm. & Utilities.....	7		7
24 Printing and Reproduction....	1		1
25 Other Services.....	5		5
26 Supplies and Materials.....	2		2
TOTAL	215	7	222
Analysis of Increase			
Necessary Pay.....		7	
Program Funds.....		0	

ABSTRACT - The Management Analysis Office (MAO) performs a wide range of general management staff assistance and advisory services related to museum, research, and support operations in the Smithsonian. No program fund increase is requested for FY 1976. Necessary pay in the amount of $7,000 is sought.

PROGRAM - Under the executive direction of the Director of Support Activities, the Management Analysis Office is responsible for assisting in the development, recommendation, and implementation of effective business administration and management improvement programs.

The Management Analysis Office provides management with a continuing appraisal of the written directives. MAO is responsible for the overall development and administration of the directives management system through which proposed Smithsonian procedures and policies are reviewed, coordinated,and approved by the Secretary before being disseminated and implemented.

The Office provides management advisory services; makes studies and special surveys for the evaluation and analysis of management problem areas. Management consultants provide specialized information to aid Smithsonian staff managers in such areas as the development of organizational, functional, staffing, and flow charts; planning and development of internal procedures; and implementation of management improvement programs.

The Management Analysis Office provides for the administration and management of a comprehensive and economical forms program for internal and external operations of the Smithsonian's various programs.

OFFICE OF PROTECTION SERVICES

1974 Actual.....$4,356,000
1975 Estimate.....$5,546,000
1976 Estimate.....$6,539,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	443	91	534
11 Personnel Compensation.....	4,698	755	5,453
12 Personnel Benefits.....	404	67	471
21 Travel & Trans. of Persons...	4		4
23 Rent, Comm. & Utilities.....	1		1
25 Other Services.....	300	80	380
26 Supplies and Materials.....	60	91	151
31 Equipment.....	79		79
TOTAL	5,546	993	6,539
Analysis of Increase			
Necessary Pay.....		218	
Program Funds.....		775	

ABSTRACT - The Office of Protection Services (OPS) is responsible for the protection, security, health, and safety programs of the Institution. An increase of $775,000 and 91 positions is requested to enable this office to fulfill its current responsibilities and to meet the increased responsibilities for two new museums. The areas covered by this requested increase are: (1) National Air and Space Museum - 55 guards ($86,000) to protect the Museum as it readies for public opening, support funds of $87,000, and $202,000 for annualization of positions filled in FY 1975; (2) Cooper-Hewitt Museum - 14 guards ($104,000) for three quarters of the year, support funds of $14,000, and $32,000 for security systems; and (3) Overall Protection and Support - 20 guards and 2 investigators ($212,000) and support funds of $38,000 to provide more adequate protection coverage for existing museums. An amount of $218,000 is also sought for necessary pay.

PROGRAM - OPS has direct responsibility for protection, security, health, and safety for Smithsonian installations in the Mall vicinity, and policy responsibility for the entire Institution. The National Zoological Park has its own police and safety staff. Over the past four years, the gross area for which OPS has direct responsibility has increased by nearly one million square feet to a total of some four million square feet.

In FY 1975, several new facilities were added to the Institution for which OPS has protection and safety responsibilities: the new National Air and Space Museum, the Anacostia Museum's exhibit training facility, and the off-Mall consolidated service center on North Capitol Street replacing several other spaces not all of which were under Smithsonian protection. In addition, the Hirshhorn Museum and Sculpture Garden opened to the public in October, 1974. The public response to this art gallery has exceeded all expectations: during the first weekend alone, more than 30,000 people viewed the gallery's paintings and sculptures. Visitation through December 1974 totaled over 640,000 persons. This heavy response required OPS to provide guard resources originally planned for other museums.

While the number of misdemeanor and felonious incidents increased by 51 percent from calendar year 1972 to 1973 (232 as compared to 351), the increase from 1973 to 1974 was only 2 percent (351 as compared to 358). While the number of crimes against

the person (robbery, assault, sex offenses) increased by 87 percent from 1972 to 1973 (38 as compared to 71), the increase from 1973 to 1974 was only 1 percent (71 as compared to 72). The success in significantly lowering the rate of increase can be attributed in part to strategic plainclothes patrol of high crime areas and timely on-scene investigation of reported offenses. Additional training in the police field has resulted in more professional response by all protection officers and a higher resolution of incidents.

A pilot program for training protection officers for canine patrol service is underway. This program was begun without an increase in manpower. Canine-handling officers were drawn from the ranks of guards and policemen already on board. This program, which has proven highly successful among police units, is being modified for museum security with an anticipated result of further crime reduction and better utilization of manpower. The dogs, which are being trained to "sniff-out" both fires and stay-behinds after closing hours, are being donated to the Institution by private citizens.

The health and safety unit, which works closely with the security operations, is moving toward full compliance with Public Law 91-596 (Occupational Safety and Health Act of 1971). The unit also works with other units in coordinating construction and exhibition projects to ensure compliance with appropriate codes and regulations. During the first five months of FY 1974, the two Smithsonian health units served 8,297 people. During the same period of FY 1975, the three units served 8,989 people. The health units, during the fall and winter, conducted a campaign to encourage employees to have their blood pressure checked.

JUSTIFICATION OF $775,000 INCREASE (Protection):

National Air and Space Museum - The initial increment of 30 positions for NASM protection will be hired in the last quarter of FY 1975. An additional amount of $202,000 is required for annualization of funds for these positions. The final increment of 55 positions (bringing to 85 the total protection force) is requested for filling during the last quarter of FY 1976 ($86,000). Support costs of $87,000 cover purchase and maintenance of uniforms and purchase or rental of necessary security and protection equipment.

Cooper-Hewitt Museum - The Cooper-Hewitt Museum is scheduled to open in January, 1976. A total of 14 guards, including 2 supervisors, is required for three quarters of the year to protect the museum as the renovation nears completion, valuable objects are moved into the museum, and the museum opens to the public ($104,000). Necessary support funds ($14,000) as well as funds for rental and maintenance of security systems ($32,000) also are requested.

Overall Protection and Support - An additional 22 positions ($212,000) are requested to help fill the gap between the number of protection officers required for current museum, gallery, and other space and the number of positions currently available. Support funds of $38,000 also are requested.

Manpower and budget requirements for guarding are based on the designation of "posts." A post may be either one point (e.g. an entrance to a museum) or an area, varying in size, based upon: the use of the area; the value of objects on display; the vulnerability of those objects to damage, theft, and vandalism; and the effective field of vision of the guard assigned to that post. The number of guards required to man one post may vary from one (the post must be manned 8 hours a day, five days a week) to five (the post must be manned 24 hours a day, 7 days a week). If all 91 positions requested in this budget are approved, it will bring the OPS total to 534. This will still leave OPS approximately 140 positions short for manning all currently designated posts. The shortage of 140 positions represents approximately 84 unmanned posts.

OFFICE OF FACILITIES PLANNING AND ENGINEERING SERVICES

1974 Actual.....$393,000
1975 Estimate.....$574,000
1976 Estimate.....$628,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	24	2	26
11 Personnel Compensation.....	427	47	474
12 Personnel Benefits.....	37	7	44
21 Travel & Trans. of Persons..	11		11
24 Printing & Reproduction.....	6		6
25 Other Services.....	83		83
26 Supplies & Materials.....	6		6
31 Equipment.....	4		4
TOTAL	574	54	628
Analysis of Increase			
Necessary Pay.....		16	
Program Funds.....		38	

ABSTRACT - The Office of Facilities Planning and Engineering Services (OFPES) provides professional and technical services including planning, design, engineering, and project management for construction, alteration, improvement, and major repair programs required by the Smithsonian's physical plant and operational needs. An increase of 2 positions and $38,000 is requested for necessary planning and construction cost estimating. A further $16,000 is needed for necessary pay.

PROGRAM - Since its establishment as a separate entity in mid-FY 1974, OFPES has developed as a professional organization offering planning, design, engineering, and construction management services. During FY 1975 it is providing technical and/or supervisory services for more than 300 projects. These include repair, renovation, alteration, and construction jobs in Washington, D. C., New York City, Maryland, Arizona, and Panama. Major projects are the renovation of the Arts and Industries Building and the Carnegie Mansion, renovation of storage and service facilities, construction related to Bicentennial exhibits, planning for a museum support facility, and development of public cafeteria and education facilities in the Natural History Building.

JUSTIFICATION OF $38,000 INCREASE (Buildings and Facilities Management) - The large number of buildings comprising the physical plant, many of which are old and of historical significance, require constant inspection, repair, and renovation work for their protection, for the safeguarding and exhibition of museum collections, and for the safety and accommodation of staff and visitors. Other projects, supportive of research and education efforts, add to the facilities planning and engineering workload. Effective design, engineering, and cost estimating are essential to accomplish projects on time, that meet objectives, and are within available funds. Two additional positions are required to augment the current technical and professional staff. A planner/designer ($24,000) is needed to identify and spell-out the most efficient and effective methods for facilities development and utilization that will meet program objectives while maintaining historical accuracies and aesthetics. A second engineer/estimator ($14,000) is required to develop and project construction costs. Accurate estimating and forecasting on a large number of diverse projects are most important in the changing and unsettled construction market.

OFFICE OF PLANT SERVICES

1974 Actual.....$ 7,300,000
1975 Estimate.....$ 9,022,000
1976 Estimate.....$11,092,000

(Dollars in thousands)	Base FY 1975	Increase Requested	Est. FY 1976
Number of Permanent Positions...	280	40	320
11 Personnel Compensation.....	3,727	525	4,252
12 Personnel Benefits.....	319	45	364
21 Travel & Trans. of Persons...	6		6
23 Rent, Comm. & Utilities.....	4,058	1,454	5,512
24 Printing & Reproduction.....	3		3
25 Other Services.....	328	10	338
26 Supplies & Materials.....	506	25	531
31 Equipment.....	75	11	86
TOTAL	9,022	2,070	11,092
Analysis of Increase			
Necessary Pay.....		183	
Other Uncontrollable.....		538	
Program Funds.....		1,349	

ABSTRACT - The Office of Plant Services (OPLANTS) operates, maintains, and repairs ten museum and art gallery buildings and a number of other work and collections storage areas. It provides utilities, transportation, mail, telephone, and horticultural services in support of research, exhibit, education, and other public programs. An FY 1976 budget increase of $1,349,000 is sought for the following Buildings and Facilities Management requirements: (1) National Air and Space Museum - 25 new positions, approximately 17 man-years, ($197,000), and annualization of 5 positions ($40,000) to operate, maintain, and provide communications and transportation services to the new building plus $838,000 for the annual costs of utilities and telephone services; (2) General Mechanical Maintenance and Services - $150,000 for 15 positions required for preventive and corrective maintenance of a valuable physical plant with $46,000 for supplies, services, and equipment; and (3) $78,000 to fund postal costs. An amount of $183,000 is needed for necessary pay for present staff. An additional $538,000 to fund higher utility rates is requested in the Uncontrollable Section (page A-5).

PROGRAM - OPLANTS operates, maintains, and repairs the Smithsonian's physical plant. This includes approximately four million square feet in 10 museums and art galleries. Services are provided also to other work and storage areas including space in leased facilities. Operational responsibilities for utilities funding and management include large and complex air-conditioning, heating, and ventilating systems and electric or electronic environmental controls and systems for the protection of buildings, visitors, natural history specimens, paintings, sculpture, and objects of American history and technology. Trade and craft assistance, such as carpentry, painting, and electrical work, is provided to hundreds of research projects, exhibition installations, and special public events every year. Packing, crating, warehousing, and moving services are provided for museum objects and collections.

Communications responsibilities include the management and funding of telephone installations and services handling some 250,000 long distance (FTS) and 1.4 million local calls annually and processing 850,000 pieces of outgoing mail and delivering 2.6 million pieces of incoming mail each year. Transportation services cover maintenance, repair, and operation of about 50 vehicles. OPLANTS also provides horticultural services to 75 acres of grounds and to building interiors.

A new management services concept has been instituted which covers effective and efficient work control and coordination, a vital part of work management. New supply procedures will improve the requisition, receipt, handling, storage, inventory, and issuing of approximately 10,000 line items. Inspection efforts will enable OPLANTS to identify and validate its backlog of essential maintenance and repair work and to improve custodial services. OPLANTS is also in the process of installing computer-monitored power management systems to control electricity consumption and maintain levels of use below surcharge levels by carefully switching equipment on or off.

JUSTIFICATION OF $1,349,000 INCREASE (Buildings and Facilities Management):

National Air and Space Museum - The National Air and Space Museum is scheduled for staff occupancy in the last quarter of 1975. In July 1976, after the public opening, workload calculations have shown that OPLANTS will require a total of 55 positions to operate and maintain heating, air-conditioning and humidity control systems; follow a preventive maintenance program on all installed mechanical equipment; provide telephone operator services; transport personnel and material; and handle mail and messenger services. In FY 1975, 5 mechanics were approved for one quarter to take over operations of the utilities systems. An amount of $40,000 is required to annualize the funding of these five mechanics in FY 1976. In FY 1976 an additional 25 positions ($197,000) will be required to operate the physical plant on a minimum scale and provide other support such as mail, messenger, telephone, and transportation services. Funds in the amount of $838,000 are needed to pay the annual cost of utilities and communications. The remaining 25 positions will be requested in FY 1977 when the museum will be opened to the public.

General Mechanical Maintenance and Services - Several million square feet of space in buildings ranging in age from brand new, as in the case of the Hirshhorn Museum to well over 100 years old, as in the cases of the Smithsonian and Fine Arts and Portrait Galleries Buildings and wear and tear from some 15 million public visits create special maintenance and service problems. Additional air-conditioning, heating, and electrical systems for all Smithsonian buildings as well as expanded exhibit spaces have resulted in greater demands on trade, craft, and custodial personnel. Furthermore, reviews of the condition of the physical plant are disclosing that while building exteriors and public and work spaces may appear to the casual viewer as being in excellent condition, there are extensive requirements for preventive and corrective maintenance of plumbing, heating, electrical, and air-conditioning systems as well as routine care of roofs, masonry, and painted surfaces. These problems compound as new buildings are added since deterioration begins immediately. Prompt attention avoids future major costs.

Inflation in the costs of building supplies, materials, services, and equipment has eroded purchasing power for required staffing levels. Fifteen mechanic, trade, and craft positions cannot be funded and therefore have been dropped. For FY 1976, an amount of $150,000 is requested to fund 15 replacement positions and thus expand the present level of preventive and corrective maintenance work to protect a physical plant valued at several hundred million dollars in replacement costs. Support cost funding of $46,000 for building supplies and related items also is requested.

Postal Services - Continuous reviews, samplings, and tight controls are placed on mail services and use. These include restrictions on air mail service, consolidations of mailings, reviews of mailing lists, and use of proper mail classes. Yet interest in the Smithsonian continues to grow as evidenced by frequent newspaper coverage of events and a large number of public inquiries seeking information on research, exhibition, education, and other activities or asking for objects to be identified by the curatorial staff. This public interaction is sure to grow during the Bicentennial celebration period. About $400,000 is now available to meet postage costs. A further $78,000 is requested in the FY 1976 budget with no easing of control measures.

SALARIES AND EXPENSES

FY 1976 Estimate and July 1 - Sept. 30, 1976 Period

Activity	FY 1976 Estimate	July 1 - Sept. 30, 1976 Estimate
1. Science	$29,976,000	$ 8,184,000
2. History and Art	12,308,000	3,443,000
3. Public Service	2,236,000	623,000
4. National Museum Programs	5,752,000	1,443,000
5. Special Programs	5,785,000	1,639,000
6. Administrative and Support Activities	23,351,000	6,678,000
Totals	$79,408,000	$22,010,000

PROGRAM AND FINANCING - TRANSITION PERIOD
(in thousands of dollars)

Identification code 32-50-0100-0-1-503	19 actual	19 estimate	19 estimate
	July 1 - Sept. 30, 1976		
Program by activities:			
1. Science	8,384		
2. History and Art	3,443		
3. Public Service	623		
4. National Museum Programs	1,443		
5. Special Programs	1,639		
6. Administrative and support activities	6,678		
Total program costs, funded	22,210		
Change in selected resources (undelivered orders)	- 200		
10 Total obligations	22,010		
Financing:			
40 Budget authority (appropriation)	22,010		
Relation of obligations to outlays:			
71 Obligations incurred, net	22,010		
72 Obligated balance, start of period	20,598		
74 Obligated balance, end of period	- 18,988		
90 Outlays	23,620		

Justification for Transition Period

The period July 1 - September 30, 1976, represents the second half of peak Bicentennial presentation activity with all program and support units in the Washington, D.C. area--some 10 major museums and art galleries, the National Zoological Park, and supporting service units--heavily committed to meeting and responding to a heavy public visitation which will have needs for information, orientation, custodial services, protection, and safety. Reflecting the unusual public service requirements of this period, the budget estimates for the following six component activities range from 25 percent to 29 percent (the average is 27 percent) of their FY 1976 estimates.

Science.....$8,184,000

The estimate for the science activity is 27 percent of the FY 1976 budget level and will be used to fund 10 major organization units. It includes the programs of the National Air and Space Museum (opening to the public in its new building on July 4, 1976), the National Zoological Park with major new public attractions, such as the lion and tiger exhibit, and the National Museum of Natural History with special Bicentennial displays and new public cafeteria and education facilities.

The budget estimate also provides for continuing programs of research, documentation, and education in anthropology, including American Indian studies, astrophysics and earth sciences, and temperate and tropical biology which will result in new understanding of man, his natural surroundings, and their relationships. Museum collections will be curated and preserved for study and important natural areas in Panama and on the Chesapeake Bay will be maintained and protected for use by staff and visiting students and scholars.

History and Art.....$3,443,000

About 28 percent of the FY 1976 estimate also will be productively applied to the important cultural resources represented by six museums of art, history, and technology including the National Museum of History and Technology, Freer Gallery of Art, National Collection of Fine Arts, National Portrait Gallery, Hirshhorn Museum and Sculpture Garden, and the Cooper-Hewitt Museum. Related archival and scholarly efforts will be continued. Collections will be documented, given proper care, and put to effective use in responding to public inquiries and providing the basis for a wide variety of publications by staff and outside users. All museums will be in full operation with an outstanding array of exhibitions, related presentations and supportive orientation, education, and tour activities. Special school service and outreach efforts will be available.

Public Service.....$623,000

Public service activities, particularly the Anacostia Neighborhood Museum with its new exhibits training and production laboratory for underprivileged and underutilized persons, the Division of Performing Arts which presents the Folklife Festival, and the Office of Public Affairs, will be very much involved in the Bicentennial effort. The international exchange of publications and the editing, design, and production of Smithsonian research reports and catalogues will be continued during this period. The transition period estimate is 28 percent of the FY 1976 budget estimate for these activities.

National Museum Programs.....$1,443,000

During this period important behind the scenes support activities and services to the national museum community will be sustained. The requested funding is 25 percent

of the FY 1976 level. The Conservation Analytical Laboratory will study museum objects and undertake preventive and remedial measures to guard against their deterioration and loss. Public inquiries to the Smithsonian's Archives and Libraries will rise with the influx of visitors and generally heightened interest in American history, technology, and cultural achievements. The Traveling Exhibition Service will be circulating several hundred exhibits across the nation. Grants to the museum profession for training, research in conservation and other techniques, for the preparation of technical publications, and for related purposes will be provided under the National Museum Act.

Special Programs.....$1,639,000

Transition period funding at 28 percent of the FY 1976 estimate is required primarily to present and support special Bicentennial efforts, most notably during this period, the actual operations of the summer-long Festival of American Folklife on the Washington Mall and the printing of the landmark Encyclopedia of North American Indians. Savings will be realized from the completion of the Major Exhibition Program project for the National Air and Space Museum in FY 1976. Pre- and postdoctoral fellowships, research grants for significant investigations, and special environmental studies will be continued.

Administrative and Support Activities.....$6,678,000

Central administration and direction and associated professional and technical support from legal counsel; financial, personnel, and procurement management; auditing; data processing; equal opportunity development; and plant engineering services will be continued at FY 1976 estimated levels. Protection, custodial, and buildings maintenance activities will be stongly in demand as a result of Bicentennial visitation. The budget estimate is about 29 percent of the overall FY 1976 estimate reflecting this peaking of summer activity.

SMITHSONIAN SCIENCE INFORMATION EXCHANGE

1974 Actual.....$1,695,000
1975 Estimate.....$1,805,000/1
1976 Estimate.....$1,875,000

The Smithsonian Science Information Exchange (SSIE) has served for more than 25 years as a national center for information on research in progress and now operates the largest and most modern information system of its kind in the world. The Exchange collects, indexes, stores, and retrieves information about ongoing research projects in all areas of basic and applied research in the life, physical, behavioral, and engineering sciences. This information is used by an increasing number of scientists, research managers, and administrators to keep abreast of current research, help avoid unwarranted duplication of effort, evaluate existing research activities, and plan new research programs.

SSIE's data base has grown steadily and the currently active file now averages some 190,000 projects. The Exchange adds and updates information on more than 110,000 projects each year. Project summaries are received on Federally supported research as well as on research supported by non-Federal organizations, such as private foundations, fund raising associations, state and local government, and private industry. Foreign research in areas of high national interest is also incorporated into the data base. Such information from non-Federal sources has proven to be extremely useful in the management of U.S. research currently being supported by the Federal government.

The Exchange not only serves its users directly, but furnishes data to a number of specialized information centers such as the Transportation Research Information Service, the National Clearinghouse for Smoking and Health, the Water Information Center, and the ERIC Clearinghouse for Social Science Education as well. These centers cover both ongoing and completed research in a wide range of subject areas. They reach an even wider total audience than does the Exchange through its direct user service program.

Information in the Exchange's data base is used also to prepare catalogues of ongoing work in specific areas, such as water resources, pesticides, health services, disaster assistance, marine sciences, and dental research. Catalogues of ongoing research are published and distributed by Federal agencies in increasing numbers and areas of interest (Table I). They make information available to large users on a significantly broader scale than is possible in response to individual information requests made to the Exchange. Still, in FY 1975, the Exchange will provide well over a half million summaries of research in progress in response to specific requests, not including the information available to users from catalogues and the specialized information centers.

In addition to the more traditional uses of the SSIE system, the Exchange has recently been asked to work with policy makers in a number of Federal agencies to explore ways in which its resources might be more effectively applied to the information requirements of high priority national programs. One important product of this effort has been the designation of SSIE by the National Cancer Institute as a Current Cancer Research Project Analysis Center under the International Cancer Research Data Bank program. Another is the compilation of a directory of international energy research in progress, in support of a Department of State evaluation of alternatives for U.S. initiatives for international cooperation in energy R&D.

These output services, as well as the more routine information products which are regularly provided, are paid for by SSIE users. SSIE's Federal support provides for performance of the data analysis and storage operations necessary to make possible the rapid and efficient retrieval of information in response to the needs of the nation's

/1 Includes requested pay supplemental appropriation of $50,000.

TABLE I

SSIE Usage by Major Categories of Service

(by Fiscal Year)

Category of Service			Report Volume (000 Notices) 1973	1974	1975 1/	User Support ($) 1973	1974	1975 1/
Request for Subject Information	Custom Subject Searches Selective Dissemination Research Inform. Package Historical Searches On-line Searches	Federal	76.9	129.1	183.5	48,884	70,505	99,994
		Non-Federal	238.7	431.6	415.2	110,788	191,974	180,468
		Total	315.6	560.7	598.7	159.672	262,479	280,462
Requests for Administrative Information	Investigator Searches Searches by Document Number Automatic Distribution	Federal	32.6	33.6	48.7	8,241	7,090	8,316
		Non-Federal	.4	1.0	.6	581	1,557	1,094
		Total	33.0	34.6	49.3	8,822	8,647	9,410
Catalogues, Compilations Processing Services, etc.	Negotiated Requests Contracts	Federal	NA	NA	NA	138,930	106,979	413,510
		Non-Federal	NA	NA	NA	122,753	44,443	96,618
		Total	NA	NA	NA	261,683	151,422	510,128
		Total User Income				430,177	422,548	800,000 2/
		% Federal Usage				46%	44%	65%

1/ Projected based on six months experience

2/ Includes funding for operation of the Current Cancer Research Information Analysis Center for the National Cancer Institute.

research community. This support covers the efforts required to assure a steady flow of information into the Exchange, the registration and entry of data into SSIE's computerized data base, the development and maintenance of input processing systems, and the multi-disciplinary classification of research project information by scientists necessary for the Exchange to meet a broad range of demands for information services.

The effect of these demands on SSIE input operations can be most clearly expressed in terms of the ongoing research information requirements of programs of high national priority such as the National Cancer Plan and Project Independence. More comprehensive coverage, more timely data, and more rapid input processing are input improvements seen by administrators and program managers as necessary precursors to the more effective application of SSIE resources to the problems of program implementation and management.

In spite of agency support for the services sought, demands on SSIE input operations have increased. Input volume rose by 21 percent in FY 1974, and an additional 10-15 percent increase is being experienced in FY 1975. Preliminary projections for 1976 indicate a still further increase. Moreover, under Federal Revenue Sharing, more and more resources provided to state and local governments are being directed toward research programs which address problems local in scope but common in nature. Within these programs, the avoidance of unwarranted duplication of research and the sharing of information and expertise require the availability of comprehensive ongoing research information from a central source.

Within the resources it has had available, SSIE has been able to capitalize on new techniques for improving input into its data base and to make it as current for searching as possible. Development and implementation of a system of computer-assisted indexing is expected to reduce the time required for input processing and to free professional staff resources for conceptual indexing and improvement of the SSIE classification system. Conversion by large supporting agencies from hard copy to magnetic tape input has also relieved some of the registration backlog which has accumulated.

Further improvement is needed, however, in order to support more effectively programs of high national concern and to serve better the information needs of state and local governments. SSIE is seeking an increase in Federal support in FY 1976, which it has been able to hold to $70,000 in spite of the impact of rapidly rising operating expenses, to improve selectively input and processing time in subject areas of critical concern and to expand its efforts to encourage and provide for new state and local input into the SSIE system. In the former case, funds will be applied toward further development and implementation of the SSIE machine-assisted indexing system. In the latter, SSIE will work with organizations such as the Council of State Governments, the National Conference of State Legislatures, and the National Governors' Conference to begin to develop mechanisms and procedures for collection, input, and delivery of ongoing research information.

The estimated budget for FY 1976 follows:

	Total Cost of Operations	Federal Support Requested	User Support Expected
Personnel	$1,934,000	$1,385,000	$549,000
Rents (building, space, computer, etc.)	449,000	313,000	136,000
Printing	70,000	3,000	67,000
Services	121,000	42,000	79,000
Supplies	48,000	24,000	24,000
Equipment	3,000	-	3,000
Total	$2,625,000	$1,767,000	$858,000
SI Services	150,000	108,000	42,000
Grand Total	$2,775,000	$1,875,000	$900,000

SMITHSONIAN SCIENCE INFORMATION EXCHANGE

FY 1976 Estimate and July 1 - Sept. 30, 1976 Period

Activity	FY 1976 Estimate	July 1 - Sept. 30, 1976 Estimate
Science Information Exchange	$1,875,000	$500,000

PROGRAM AND FINANCING - TRANSITION PERIOD
(in thousands of dollars)

Identification code 32-50-0103-0-1-503	19 actual July 1 - Sept. 30, 1976	19 estimate	19 estimate
Program by activities:			
10 Science Information Exchange (costs - obligations).....	500		
Financing:			
40 Budget authority (appropriation)	500		
Relation of obligations to outlays:			
71 Obligations incurred, net.....	500		
72 Obligated balance, start of period..	104		
74 Obligated balance, end of period....	- 139		
90 Outlays.....	465		

Justification for Transition Period

Science Information Exchange $500,000

Funds requested for the period July 1, 1976 - September 30, 1976, slightly more than 25 percent of the FY 1976 estimate reflecting rising prices for services and supplies, will sustain data acquisition and storage operations to maintain continuity and comprehensiveness of information on research projects in progress as a service to the research community.

SMITHSONIAN INSTITUTION
MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1974 Appropriation.....$4,500,000
1975 Appropriation.....$2,000,000 Equivalent in Excess
1976 Estimate.....$2,000,000 Foreign Currencies

An appropriation of $2,000,000 in foreign currencies determined by the Treasury Department to be in excess of the normal needs of the United States is requested for FY 1976. The appropriation will be used for two general purposes:

1) To continue a program of grants to United States institutions for field research in those countries where excess local currencies are available in the following general areas:

Obligations of Funds by Program Area
(dollar equivalents)

	FY 1974 Obligations	FY 1975 Estimated Obligations	FY 1976 Estimated Obligations
Archeology and Related Disciplines	$1,331,000	$ 772,000	$ 313,000
Systematic and Environmental Biology	1,420,000	970,000	477,000
Astrophysics and Earth Sciences	86,000	115,000	267,000
Museum Programs	91,000	370,000	18,000
Grant Administration	102,000	83,000	37,000
Transfer to NSF--Science Information Program	140,000	95,000	-
Total	$3,170,000	$2,405,000	$1,112,000

2) To make the third of four annual payments, each of $1,000,000 equivalent in excess Egyptian pounds, which together would constitute the United States' contribution to the International Campaign to Save the Monuments of Nubia which are inundated by Nile River waters regulated by the Aswan Dam. These payments would support the preservation of the monuments on the Island of Philae in Egypt as proposed by President Kennedy in his letter to the Congress dated April 6, 1961.

THE PROGRAM OF GRANTS FOR FIELD RESEARCH

The purposes of the Special Foreign Currency Program (SFCP) are consonant with the Smithsonian Institution's stated objective, "... the increase and diffusion of knowledge among men." The Program receives project proposals from United States institutions and supports those which it judges most likely to contribute to that objective. To assist in the process of selection, the SFCP consults preeminent scholars who advise on the scientific quality of each project, on its feasibility, and on the qualifications of its proponents.

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In addition to pursuing its primary objective, the Program through its research awards contributes to strengthening universities, museums, and other institutions of higher learning both in the United States and in the host countries. The research projects also promote transnational scientific and cultural cooperation among United States and foreign scientists and institutions with a resulting benefit to international relations that, although difficult to quantify, is undoubtedly real.

In FY 1974, participation in the SFCP foreign research projects involved about 370 American scientists from 46 United States institutions in 32 states. Over 45 additional scientific publications were reported, raising the Program's accumulative total to 507.

SIGNIFICANT PROJECTS

Utah State University, which has been the headquarters of United States Desert Biome Research under the International Biological Program, is applying the plan developed in the course of studies of deserts in the United States to the encroaching desert fringe in southern Tunisia. Research is expected to provide insight into the pressing problem of loss of arable land. Of special scientific interest is the opportunity to measure the human role in this ecosystem, which is possible because of the unique isolation of the human population.

The American Institute of Indian Studies, with headquarters at the University of Chicago, has received grants in excess Indian rupees since 1968 to support the development of American scholarly competence in the study of India chiefly in the fields of archeology and related disciplines. The Institute is a consortium of 28 American colleges and universities in which teaching and research on India are a part of the academic program at the undergraduate or graduate levels. One hundred twenty-eight research awards have been made to the Institute.

The University of Michigan operates a world-renowned laboratory for the study of snails, some of which transmit human diseases like schistosomiasis which is considered with malaria and hookworm to be one of the greatest parasitic scourges of mankind. The initial step in learning to control the disease is to identify the snails and to understand their life cycles. To this end, the University has joined Ain Shams University in Cairo in establishing a regional laboratory where specimens collected all over Africa are brought for study.

SFCP IN RELATION TO THE U.S. TAXPAYER

The excess foreign currencies utilized by the SFCP were largely generated years ago by sales of United States agricultural commodities. Their use has no current effect on the U. S. taxpayer. They are not dollars but are local currencies that can be spent only for selected purposes in selected countries. It is also important to note that in some of these countries, such as India and Pakistan, the purchasing power of the local currency, and hence of the U.S.-owned funds, is falling with increasing rapidity every year. In those two countries, the currencies have shown a loss of about 50 percent since 1966, and half of this loss has occurred since 1973.

THIRD U.S. CONTRIBUTION TO THE SALVAGE OF THE MONUMENTS OF NUBIA

The Smithsonian is seeking a continued appropriation of $1,000,000 equivalent in excess Egyptian pounds to help preserve the temples on the Island of Philae which have been inundated by Nile River waters regulated by the Aswan Dam. The contribution of $1,000,000 would be the third of four equal annual appropriations which together would constitute the total United States' contribution to UNESCO's international campaign for the safeguarding of the Nubian Monuments.

The International Campaign was undertaken in 1960 at the request of the Governments of Egypt and Sudan. President John F. Kennedy said in his letter of April 6, 1961 to the Congress in response to Public Law 86-472 that he considered it "to be in the interest of the United States to assist in rescuing these historic remains of a former civilization from destruction...." Funds contributed are placed in a trust fund devoted exclusively to the study, salvage, and preservation of the archeological monuments of Nubia.

The total cost of the program to salvage the monuments on the Island of Philae will probably exceed $16,000,000 in convertible and local currencies. As of July 12, 1974, some $8,500,000 of this total had already been pledged by other nations. In addition, Egypt has undertaken to meet one-third of the project's total cost.

The salvage plan, adopted with the advice and concurrence of an American engineer, provides for a coffer dam to be erected around the Island of Philae to permit the lowering of the water for removal of the temples. They are to be erected on the nearby Island of Agilkia in a setting like the original one. There they will be higher and safe from further erosion by the river and accessible to all.

Work has progressed satisfactorily. The United States representative on the Group of Archeologists and Landscape Architects for Safeguarding the Philae Temples reports that in December 1974 the coffer dam had been completed, the water level lowered to the level necessary to permit the removal of the temples, the photogrammetry of the temples had been completed, and the archeology of the island and the temples had been started. The leveling of the surface of the Island of Agilkia is taking longer than had been anticipated primarily because of the unanticipated hardness of the stone which must be removed to prepare an appropriate site for the temples.

Obligation of Total SFCP Funds by Country
(dollar equivalents)

	FY 1974 Actual	FY 1975 Estimate	FY 1976 Estimate
Egypt	$1,769,000 /1	$1,538,000 /1	$1,090,000 /1
India	396,000 /2	535,000 /3	293,000
Pakistan	387,000 /2	295,000	195,000
Poland	428,000	486,000	230,000
Tunisia	703,000	551,000	304,000
Yugoslavia /4	486,000	-	-
TOTAL	$4,170,000 /1	$3,405,000 /1	$2,112,000 /1

/1 Includes payment to the UNESCO trust fund of $1,000,000 equivalent excess Egyptian pounds for the International Campaign to Save the Monuments of Nubia.
/2 Includes $70,000 equivalent transferred to the NSF Science Information Program.
/3 Includes $95,000 equivalent transferred to the NSF Science Information Program.
/4 Yugoslavia ceased to be an excess currency country in FY 1974.

STATUS OF SMITHSONIAN SFCP FUNDS
(dollar equivalents)

	FY 1974 Actual	FY 1975 Estimated	FY 1976 Estimated
Unobligated Balance, Start of year	$ 783,000	$1,327,000	$ 149,000
Appropriation	4,500,000	2,000,000	2,000,000
Recovery of Prior Years' Obligations	214,000	227,000	100,000
Unobligated Balances, End of year	-1,327,000	-149,000	-137,000
Total Obligations	$4,170,000	$3,405,000	$2,112,000

Smithsonian Foreign Currency Program Grants Awarded in Fiscal Year 1974

ARCHEOLOGY AND RELATED DISCIPLINES

American Institute of Indian Studies, Philadelphia, Pennsylvania. Continued support for administration, Benares Center for Art and Archeology, and research fellowships (India).

American Museum of Natural History. New York, New York. Excavation at the Harappan site of Allahdino in the Malir Area, Karachi District, Pakistan.

American Research Center in Egypt, Princeton, New Jersey. Continued support for a program of research and excavation in Egypt: support for operation of the Cairo Center, fellowship support, maintenance of archeological research at the site of Hierakonpolis (Nekhen) in Edfu District, survey of Arabic scientific manuscripts in Cairo, maintenance of a stratified pharonic site in the Egyptian delta at Mendes, Akhenaten Temple project, research in modern Arabic literature, continuation of an epigraphic and architectural survey at Luxor of the Oriental Institute, feasibility of clearing, conserving, and recording the tomb of King Ramesses II in the Valley of the Kings, an egyptological conference, editing the Nag Hammadi codices.

Boston University, Boston, Massachusetts. Archeological excavations at Stobi (Yugoslavia).

Dumbarton Oaks Center for Byzantine Studies, Washington, D.C. A corpus of the ancient mosaics of Tunisia.

Smithsonian Institution, Department of Anthropology, Washington, D.C. Helmand-Sistan projects: studies of historical ecology.

Southern Methodist University, Dallas, Texas. The Pleistocene sediments of the Nile Valley, Egypt.

State University of New York at Buffalo, New York. Investigations on the Neolithic sites in Southeastern Poland.

University of California, Berkeley, California. Archeological excavations at the Harappan Seaport of Balakot, Pakistan.

University of Minnesota, Minneapolis, Minnesota. Excavations in Diocletian's Palace at Split, Yugoslavia.

University of Missouri, Columbia, Missouri. Research and study of Early Medieval Polish archeology.

University of Pennsylvania, University Museum, Philadelphia, Pennsylvania. The Dira Abu el-Naga project (Egypt).

University of Pennsylvania, University Museum, Philadelphia, Pennsylvania. Excavation within the town and harbour site of Malkata, Western Thebes (Egypt).

MUSEUM PROGRAMS

Smithsonian Institution, Department of Science and Technology, Washington, D.C. Publication in Islamic medicine in the thirteenth century (Egypt).

Smithsonian Institution, Office of Museum Programs, Washington, D.C. Publication of ICOM's *The Protection of Cultural Property: handbook of national legislations.*

Smithsonian Institution, Traveling Exhibition Service, Washington, D.C. Study and exhibition of Wissa Wassef tapestries from Egypt.

SYSTEMATIC AND ENVIRONMENTAL BIOLOGY (INCLUDING PALEOBIOLOGY)

Academy of Natural Sciences, Philadelphia, Pennsylvania. Biochemical investigations of diploid and triploid frogs of the *Rana esculenta* complex (Poland).

Duke University, Durham, North Carolina. Exploitation of habitats by chemically differentiated races of morphologically uniform lichen-forming fungi (Tunisia).

Harvard University, Museum of Comparative Zoology, Cambridge, Massachusetts. Study of the dentition of Cretaceous mammals of Mongolia (Poland).

Howard University, Washington, D.C. Cenozoic mammals of Pakistan.

Smithsonian Institution, Department of Botany, Washington, D.C. Revision of *Trimen's Handbook to the Flora of Ceylon.*

Smithsonian Institution, Department of Paleobiology, Washington, D.C. Comparative study and geography of selected Devonian and Permian corals in Poland and the U.S.A.

Smithsonian Institution, Office of International and Environmental Programs, Washington, D.C. Limnological investigations of Lake Ohrid (Yugoslavia), limnological investigations of Skadar Lake (Yugoslavia), Mediterranean Marine Sorting Center (Tunisia).

Smithsonian Institution, Tropical Research Institute, Balboa, Canal Zone. Ecology of freshwater lakes in Panama (Poland).

Texas Tech University, Lubbock, Texas. Mammals of the Adriatic islands and adjacent mainland of Yugoslavia.

University of California, Berkeley, California. A biosystematic comparison of the siphonocladales (Chlorophyta) (Tunisia).

University of California, Berkeley, California. Comparative study of Late Cretaceous Mongolian and North American mammals (Poland).

University of Michigan, Ann Arbor, Michigan. Systematic studies of the molluscan genus *Bulinus* in Africa and adjacent regions (Egypt).

University of Utah, Salt Lake City, Utah. The evolution of optimal reproductive strategies (India).

Utah State University, Logan, Utah. Systems analysis of the PreSaharan ecosystem of Southern Tunisia.

Yale University, New Haven, Connecticut. Paleoanthropology, paleontology, and stratigraphy of Neogene localities in Pakistan.

ASTROPHYSICS AND EARTH SCIENCES

Duke University, Durham, North Carolina. Studies in Lake of Tunis.

Smithsonian Institution, Astrophysical Observatory, Cambridge, Massachusetts. Operation of the Uttar Pradesh State Observing Station at Naini Tal (India).

Smithsonian Institution, Department of Mineral Sciences, Washington, D.C. Lonar Meteorite Crater project (India).

University of Washington, Seattle, Washington. Color magnitude diagrams for young star clusters in magellanic clouds (Poland).

MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

FY 1976 Estimate and July 1 - Sept. 30, 1976 Period

Activity	FY 1976 Estimate	July 1 - Sept. 30, 1976 Estimate
Grants for museum programs and related research in the natural and physical sciences and cultural history	$2,000,000	$750,000

PROGRAM AND FINANCING - TRANSITION PERIOD
(in thousands of dollars)

Identification code 32-50-0102-0-1-503	19 actual	19 estimate	19 estimate
	July 1-Sept. 30, 1976		
Program by activities:			
Grants for museum programs and related research in the natural sciences and cultural history (program costs - funded)	1,550		
Change in selected resources (undelivered orders)	- 800		
10 Total obligations	750		
Financing:			
40 Budget Authority (appropriation)	750		
Relation of obligations to outlays:			
71 Obligations incurred, net	750		
72 Obligated balance, start of period	3,302		
74 Obligated balance, end of period	- 3,252		
90 Outlays	800		

Justification for Transition Period

Special Foreign Currency Program $750,000

This appropriation, about one-third of the FY 1976 level, will continue a program of grants to United States institutions for field research in those countries where "excess" local currencies are available. Research will be performed in archeology and related disciplines, systematic and environmental biology, astrophysics and earth sciences, and in museum and other cultural activities.

FACILITIES PLANNING, RENOVATION, RESTORATION, AND CONSTRUCTION

Summary

Current Programs	Fiscal Years 1974 Appropriation	1975 Appropriation	1976 Estimate	Transition Period Estimate
Construction and Improvements, National Zoological Park	$3,790,000	$9,420,000	$9,550,000	$1,440,000
Restoration and Renovation of Buildings	1,070,000	1,490,000	1,467,000	400,000
Construction, National Air and Space Museum	17,000,000	7,000,000	3,000,000	-
Totals	$21,860,000	$17,910,000	$14,017,000	$1,840,000

The FY 1976 appropriation requested for Construction and Improvements, National Zoological Park will allow progress to be sustained on the implementation of the approved Master Plan for the improvement of the Zoo's animal and public facilities and essential repairs and additions to existing facilities. Work to be accomplished includes completion of the service facility and the construction and rehabilitation of bear exhibits; the continued planning for beaver, otter, seal, sea lion, and wolf exhibits; the design and installation of exhibit, orientation, and education graphics and street furniture; and a program of repairs and renovation of Zoo facilities in Rock Creek and at Front Royal, Virginia. Transition period funding will sustain planning and construction on Central Area exhibits and provide for a continued program of repairs and improvements to existing facilities.

The FY 1976 appropriation sought for Restoration and Renovation of Buildings emphasizes continuing projects including road improvements at the Mt. Hopkins, Arizona, Observatory, the installation of fire detection and suppression systems, renovation of the Arts and Industries Building and the Smithsonian Building south yard, the completion of planning for a sixth floor library and research center addition to the History and Technology Building, and general repairs and improvements to buildings and facilities. The requested transition period funding will sustain the facility maintenance effort.

The FY 1976 appropriation for Construction, National Air and Space Museum will complete the liquidation of the contract authority provided in FY 1973.

CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

1974 Appropriation $3,790,000
1975 Appropriation $9,420,000
1976 Estimate.....$9,550,000

This appropriation is used to fund repairs, alterations, and improvements to existing facilities including exhibits; to prepare plans and specifications for construction; and to perform renovations, restorations, and new construction implementing the Master Plan approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973.

The requested FY 1976 appropriation will be applied as follows.

General Service & Parking Facilities	$4,550,000
Lower Rock Creek Valley	3,000,000
Beaver Valley	490,000
Graphics	100,000
Renovation and Repair	650,000
Front Royal, Virginia, Conservation Center Renovation	760,000
Total	$9,550,000

Background

The National Zoological Park (NZP) was established in 1890 under the Board of Regents of the Smithsonian Institution who were authorized to "administer and improve" the Zoo for "the advancement of science and the instruction and recreation of the people" (20 U.S.C. 81). The NZP has two locations. Exhibition and education functions have been centered since 1890 on some 150 acres in Washington, D. C.'s Rock Creek Valley. At present there are on display some 2,835 animals and birds of 600 different species. Complementary animal conservation and breeding functions (to be done in collaboration with other zoos) are now being developed on about 3,000 acres of Federal land near Front Royal, Virginia.

Why Does the NZP Need to be Improved?

There are several principal reasons why the Zoo must be renovated.

It is the National Zoo of the United States yet has fallen far behind many other United States and foreign zoos in terms of adequate facilities. Approximately half of its millions of annual visitors come from outside the Washington Metropolitan area. Many of its visitors are from foreign countries, and the Zoo is the official repository for many foreign gifts of rare and valuable animals as well as gifts from public-spirited Americans.

The Zoo has an aged and crumbling physical plant. Animals, employees, and visitors are housed and served in facilities that date from 1805 with most of the plant having been constructed between 1902 and 1937. Repairs are difficult and expensive.

Animal facilities fall far short of acceptable modern standards for care, health, breeding, and research for conservation of rare and endangered species. Known requirements of animals, both physiological and psychological, are not being met by present housing. The accelerating extinction of many species means that zoos must manage and study their animals in such a way as to maximize reproduction and to contribute to knowledge that will assist management in the wild to help survival.

The education potential of the National Zoo is not being met by the cramped, unnatural cages which were in style 50 or more years ago. Today's public should not be asked to accept inadequate, outmoded housing of animals which neither serves the animals nor meets the needs of a more aware, conservation-minded, and environmentally-conscious public.

The requirements of a growing number of visitors for parking (the Zoo is not now, nor will it be under Metro, adequately served by public transportation), orientation and school education facilities, food service, adequate restrooms, first aid, and other services to make their visits pleasant and instructive are not being met. Facilities designed for an 1890 horse and carriage population are woefully inadequate to handle present day crowds. Present day automobile traffic is chaotic. Utilities that were serviceable 50 years ago do not meet today's needs.

Administrative, crafts and trades, animal keeper, commissary, police, and other essential and dedicated staff are scattered throughout the Zoo in inefficient and hazardous structures not designed for today's uses. Work effectiveness and morale suffer.

Has Any Progress Been Made on Corrective Action?

A renovation program was initiated in the early 1960's and some improvements have been made since then. Except for the most urgent repairs and very limited planning efforts, the program ground to a halt between about 1968 and 1972 during the Vietnam period.

New access roads and parking lots have been constructed and automobile traffic has been largely removed from the central exhibit area of the Zoo (an additional 12 acres of prime animal and visitor space would be regained by the construction of the general service and parking facility). The heating plant has been converted from hand firing and the sewage system has been modernized to meet public health standards. The 1926 Bird House was renovated and a separate walk-through flight cage completed in 1964. Repair projects (such as walks, roofs, and guardrails) have been undertaken to attempt to keep the Zoo operational and safe.

The deer and hoofed-stock area was redeveloped and five additional acres put to use resulting in much larger quarters for the zebra, antelope, and oxen. The Hospital and Research Building was finished in 1969. The pandas arrived in 1972 and are now well-housed in a renovated hoofed-stock building. The 1904 Monkey House is now being remodeled with larger cages and other animal and visitor improvements. Very recently, the 1890 Lion House was demolished. With $3,000,000 appropriated in 1974 a modern moated exhibition facility for lions and tigers is now under construction. This year, with $2,970,000 appropriated, work is underway on the Elephant House Yards and Bird House Plaza to enlarge and redevelop them for animal health, exhibition, and education purposes. These exhibits will be ready by the summer of 1976. Also $2,500,000 has been appropriated for construction of an education and administration building. Photographs of the Monkey House, Elephant Yards, and Lion-Tiger facility projects are on page D-4.

What Work Needs to be Done?

Only a small number of the important projects have been accomplished or are currently underway. The Master Plan, approved by the Commission of Fine Arts and the National Capital Planning Commission in FY 1973, for the renovation and improvement program, has 41 major projects clustered into 14 groups for planning, budgeting, and management purposes. Page D-5 shows the Master Plan schedule for these projects, budget estimates, and estimated completion dates.

With funds available from a prior reprogrammed appropriation and new funds appropriated in fiscal years 1973, 1974, and 1975, six of the projects are or can be completed

January 1975

NATIONAL ZOOLOGICAL PARK MASTER PLAN SCHEDULE

PROJECT GROUP	PROJECT NUMBER	PROJECT	ESTIMATE (1976 VALUE)	PLANS & SPECS.	CONSTR.	ESTIMATED COMPLETION DATE
I	1	Monkey House				12/74
	2	Puma House	Authorized prior to FY 1973			12/74
	3	Panda House				Complete
II	4	Lion & Tiger Exhibit	$3,275,000	FY 73	FY 74	7/76
III	5	Elephant Yards	1,450,000	FY 74	FY 75	9/75
	6	Bird House Plaza	1,680,000	FY 74	FY 75	9/75
IV	7	General Svc-Parking	21,000,000	FY 74,75	FY 76,77	4/78
V	8	Education-Visitor Center	2,500,000	FY 75	FY 75	8/77
VI	Lower Rock Creek Valley		6,450,000	FY 74,75	FY 76,77	7/78
	9	Bears				
	10	Sheep & Goats				
	11	Baboons				
	14	Roadway & Utilities				
	20	Polar Bears				
VII	Beaver Valley		10,000,000	FY 75, 76	FY 77	12/78
	15	Beavers				
	16	Wolves				
	17	Seals & Sea Lions				
	18	N. American Otters				
VIII	Central Area Complex		14,000,000	FY 75,77	FY 77,78	7/79
	21	Small Mammal House Ren.				
	22	Crocodiles & Komodo Dragon				
	23	New Monkey House				
	24	Monkey Island				
IX	Waterfowl Pond Complex		12,000,000/1	FY 75,78	FY 79	1/80
	26	Waterfowl Pond Remodeling				
	27	Lesser & Medium Cats				
	28	Plains Animals				
X	Building Renovation		4,500,000	FY 79	FY 80	7/80
	29	Reptile House				
	30	Elephant House				
XI	Connecticut Avenue Complex		8,000,000	FY 79	FY 80	7/81
	31	Restaurant & Cafeteria				
	32	Entrance-N. Amer Animals				
XII	Aquatic Habitats Complex		9,500,000	FY 80	FY 81	7/82
	12	Aquatic Habitats				
	15	Penguins				
	33	Manatee				
	34	Kiwi				
	35	Sea Otters				
	36	Platypus				
	37	Hawks & Owls				
XIII	Holt House Area		3,500,000/1	FY 81	FY 82	1/83
	38	Holt House Ren. & Greenhse				
	39	Research-Holding Nursery				
XIV	North Road Area		15,000,000/1/2	FY 82	FY 83	7/84
	40	Klingle Street Bridge				
	41	Large Plains Animals				
		Total Cost	$112,855,000/3			

Estimates include plans and specifications, all utilities, walks and roads in Master Plan area, landscaping, graphics, exhibits, construction contingencies and escalation to July 1976.

/1 Projects may be reduced approximately $10,000,000 by alternative development at the Front Royal Conservation Center.

/2 This project includes animal exhibits above future underground parking structures.

/3 This amount represents the $99,180,000 Master Plan program described in the FY 1975 justifications, updated by escalation of costs to FY 1976.

(Monkey House, Panda House, Lion and Tiger Exhibit, Elephant Yards, Bird House Plaza, and Education-Visitor Center). Planning can be completed and first phase construction accomplished on the General Service and Parking Facility. And planning can be advanced on Lower Rock Creek Valley, Beaver Valley, and Central Area group projects.

As shown by the schedule, however, planning and construction remain to be completed on new bear exhibits (polar bears included); renovation of present bear dens; complete remodeling of sea lion exhibits for seals, sea lions, beavers, and otters; renovation and remodeling of small mammals house (including gorillas and orangutans); renovation and modernization of the Reptile House with special exhibit of the Komodo Dragon and crocodile; modernization of the waterfowl complex; monkey island; small and medium cats (bobcats to leopards); renovation and modernization of Elephant House and tropical aquatic habitat building for such as penguins, manatees, various aquatic mammals, and fish.

Why is the FY 1976 Plan of Work Particularly Important?

First and foremost, it is important to keep the long-sought momentum in order to complete the jobs as quickly as possible for program reasons, to save future year construction cost escalation, and to conclude the necessary interference with visitors' education and enjoyment caused by construction detours and activity.

Past and present planning has recognized the impact that the Bicentennial celebration visitor load will have on the Zoo. Consequently, a construction and renovation schedule has been adopted that will result in the center of the Zoo being presentable to receive visitors with some new attractions such as the large cat exhibit now under construction. New construction during this period will be on the perimeter of the Zoo, such as the General Service and Parking Facility and the Lower Rock Creek Valley complex as shown on page D-7.

Details on FY 1976 projects are provided in the following sections.

General Service and Parking Facilities ($4,550,000). These facilities are pivotal to the entire Master Plan construction program. They will provide improved access and accommodation for visitor parking, contain approximately 900 parking spaces for a total of 1730 (the Zoo now has 1030 spaces), and, equally important, centrally house and organize all service and support functions of the Zoo. These are craft and trade shops and offices, gardening shops, animal commissary, motor pool, supply offices and storerooms, and protective services. Space vacated elsewhere in the Zoo by these activities and certain current parking areas (some 12 acres) will become available for animal and public service development projects that are keys to the success of the Master Plan. Some of these projects are new monkey exhibits, exhibits for small and medium sized cats, and exhibits for large plains animals.

These facilities will be located along Rock Creek adjacent to the roadway which now connects the Connecticut Avenue and Harvard Street entrances to the Zoo. The architect's design adapts the structure to the hillside and blends the floor levels to a slope thereby minimizing the visual impact from Rock Creek Drive. Landscaped terraces and planter boxes will reduce further any intrusion of this structure on the natural character of the area.

Total cost of these facilities is estimated at $21,000,000 of which $300,000 was appropriated in FY 1974 for first phase planning and $2,700,000 in FY 1975. The FY 1975 appropriation will permit final plans and specifications to be completed and ready for bidding by July 1975. The FY 1976 request of $4,550,000 will permit construction completion of an initial self-contained increment of the facility, consisting of the lower level service building with roof-top parking for 298 cars. This will be a fully usable facility designed so that the additional parking decks above can be constructed at a later date. An appropriation of $13,450,000 will be requested in FY 1977 to complete the total parking structure in order to free up valuable in-park space for Master Plan exhibits.

The service facility solves tough problems that plague more than a dozen support services stuffed in old basements, attics, and temporary sheds. Most critical among these are the maintenance shops and commissary. Nearly all the workshops are now on a site suffering increasing flood damages and risk. The $125,000 damages caused by Hurricane Agnes may not be repeated soon, argue the statisticians. But the fact is that since Agnes, three flash floods have washed up to the shops' level and these events are becoming more frequent as more of the watershed is paved over. See page D-8 for the effects of floods.

The commissary is in an impossible pinch. More efficient animal food service is being demanded from an increasingly antiquated facility. The freezers and coolers were written off by a commercial donor before received a decade ago. Cramped space, low basement ceilings deny any chance for solution in the current site. The new General Service facility is needed now to solve these and many other problems.

Lower Rock Creek Valley ($3,000,000). The FY 1974 and 1975 appropriations provided a total of $500,000 to prepare construction plans and specifications for Master Plan Group VI projects designated for the Lower Rock Creek area. By July 1975, the Zoo will be ready to obtain construction bids for a portion of the Group's projects consisting of new polar and grizzly bear exhibits and complete renovation (rather than new construction to reduce costs) of existing bear dens for sun, sloth, and spectacle bears and for the Smokey exhibit. All bears will be exhibited with increased space for their well being and with minimum visual obstruction to the visitors by use of moats and other techniques. The reconstruction of the bear dens is an essential safety and health requirement. Present facilities were constructed in 1902 and are badly deteriorated. The existing cement pools have major cracks through which hundreds of gallons of water are lost daily. Bars have rusted so badly that in many places there is insufficient metal to which replacement bars can be welded.

The major new exhibit to be constructed with funds requested in FY 1976 is the Polar Bear exhibit which will have three viewing areas with water moats and simulated ice floe areas. Two viewing areas will be used for females and cubs. A feature of the facility will be the cubbing dens carefully designed for breeding purposes. Breeding the endangered polar bear in captive conditions can be accomplished by overcoming technical difficulties.

A future appropriation will be requested to complete projects in the lower Rock Creek Group which include exhibits of goats, sheep, and baboons with excellent hillside viewing and with associated audio-visual exhibits.

Beaver Valley ($490,000). Advance planning for the several projects in Beaver Valley (Master Plan Group VII) has been started with $80,000 appropriated in FY 1975. The projects in this group include a beaver exhibit (illuminating this animal's extraordinary role as a natural force in the development of our country), constructed to show the beaver in action in the water, dam building, and in his lodge; a very active exhibit of the North American otter; a major exhibit pool for seals and sea lions; and a new enclosure permitting people to discover the beauty and character of the wolves.

The requested FY 1976 appropriation of $490,000 will allow completion of the total plans and specifications in advance of a construction appropriation to be requested in FY 1977.

Design and Installation of Graphics ($100,000). Present signage at the Zoo is a patchquilt of improvisations strung together through this century. The Zoo must do a better job in guiding and serving the visitor, thus a graphic design consultant has been retained to work with the Master Plan architect and with the exhibits and education

offices to upgrade and standardize graphics and street furniture and to identify and coordinate graphic needs for new facilities. This will result in approved standards for exhibits, street signs, building signs, benches, trash containers, light posts, and telephone booths. As new facilities are completed, the approved graphics and street furniture designs should be implemented. In order to prepare for Bicentennial visitors to the new exhibits, an appropriation of $100,000 is required for the environs of the lion and tiger exhibit, elephant and bird house yards, and other connecting areas and pathways.

Front Royal, Virginia, Conservation Center Renovation and Improvements ($760,000). An appropriation of $760,000 is sought to make repairs, modifications, and improvements to the National Zoological Park's Animal Conservation Center. This 3,000 acre site, the former Beef Cattle Experiment Station at Front Royal, Virginia, was declared excess by the U.S. Department of Agriculture in November, 1973. A temporary use permit was granted by the General Services Administration to the Smithsonian in January,1974. Formal transfer of the property to the Institution is being processed.

Such a site has long been sought by the Zoo to use for breeding endangered wildlife species and for associated conservation and research efforts. Breeding groups will be assembled in cooperation with other zoos whose city sites preclude the space needed for successful breeding groups of exotic animals. Other important uses include holding animals temporarily displaced by the Master Plan construction at the Zoo (as well as animals obtained in anticipation of construction completion) and farming land to produce an ample supply of silenium-rich hay needed for animal health which must now be purchased from the Midwest. Photographs of the Front Royal site are on page D-10.

Funds are required to continue the installation of containment fencing and cages. Existing buildings will be modified to provide space for animal housing, commissary facilities, administration, research, and housing for personnel. The water, sewage, and electrical systems must be renovated to ensure continued dependable service. Master planning for the future use of the Conservation Center will be undertaken, including study of cost saving alternatives to the development of the Rock Creek Zoo, particularly with reference to research and breeding programs.

Renovation and Repairs ($650,000). An amount of $650,000 is required to continue the program of renovation, repairs, and preventive maintenance of existing facilities. This funding is required to keep the heavily used Zoo in safe condition for the visiting public, for the upkeep and improvement of animal enclosures and staff facilities, and to maintain new buildings in good condition so that in the future the Zoo will not be faced with an overwhelming backlog of repairs. Renovation and repair projects include: painting; roof patching and replacement; electrical repairs and improvements; repairs and extensions to water, steam, and other utilities; and fence, road, curb and sidewalk repairs and improvements for safety.

Construction and improvement work is accomplished primarily by contract. There are occasional projects, however, not lending themselves to contract. For example, suitable contractors cannot be located or their estimates are exorbitant in relationship to the proposed job. In such cases, accomplishment of the work by other means, such as the purchase with this appropriation of supplies, materials, and equipment and the use of in-house or temporary labor, is the most cost-effective solution.

CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

FY 1976 Estimate and July 1 - Sept. 30, 1976 Period

Project	FY 1976 Estimate	July 1 - Sept. 30, 1976 Estimate
1. General Service and Parking Facilities	$4,550,000	-
2. Lower Rock Creek Valley	3,000,000	-
3. Beaver Valley	490,000	-
4. Graphics	100,000	-
5. Central Area Complex	-	$900,000
6. Renovation and Repair	650,000	160,000
7. Front Royal, Virginia, Conservation Center Renovation	760,000	380,000
Totals	$9,550,000	$1,440,000

SMITHSONIAN INSTITUTION
CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

PROGRAM AND FINANCING - TRANSITION PERIOD
(in thousands of dollars)

Identification code 32-50-0129-0-1-503	19 actual	19 estimate	19 estimate
	July 1 - Sept. 30, 1976		
Program by activities:			
Planning, Design, and Construction (program costs, funded).....	1,998		
Change in selected resources (undelivered orders).....	- 558		
10 Total obligations.....	1,440		
Financing:			
40 Budget authority (appropriation)	1,440		
Relation of obligations to outlays:			
71 Obligations incurred, net.....	1,440		
72 Obligated balance, start of period.	12,113		
74 Obligated balance, end of period...	- 7,953		
90 Outlays.....	5,600		

Justification for Transition Period

Work must be undertaken during the summer of 1976 in order to be ready to meet FY 1977 scheduled objectives for completion of Master Plan improvements to the National Zoological Park; to prepare for animal relocations before the advent of cold weather; and to accomplish non-deferrable repairs and renovations. The transition period appropriation will be applied as follows:

Central Area Complex	$900,000
Renovation and Repair	160,000
Front Royal, Virginia, Conservation and Research Center	380,000
Total	$1,440,000

Central Area Complex $900,000

With funds appropriated in FY 1975, schematic studies were started for projects incorporated in the approved Master Plan for the central area of the Zoological Park. These projects include complete renovation of the existing Small Mammal House, constructed in 1937, to provide new and improved space for great apes as well as a variety of small mammals; new central yard exhibits; new facilities for monkeys including an outdoor island exhibit; as well as graphics, landscaping, utilities, sidewalks, and site improvements. Funds will distribute evenly for purposes of maintaining planning progress to gain readiness for earliest possible FY 1977 construction, and for necessary preparations for continuity of visitor and animal programs during construction. Since the area includes the Zoo's central pedestrian arteries, alternative walkways must be achieved before new construction. Utilities must be relocated in some instances. Animals must be relocated from the site of first phase construction. To be ready to maintain Master Plan progress in FY 1977, this work must be accomplished in the summer of 1976.

Renovation and Repair..... $160,000

This amount is a quarterly increment of an annual request for funds to maintain existing deteriorating facilities and exhibits in advance of complete rebuilding under the Master Plan program; and to perform essential major repairs to used walkways, facilities, and mechanical services. Because the Zoo is an open park there are many renovation and repairs tasks that may not be deferred until fall.

Front Royal, Virginia, Conservation Center Renovation..... $380,000

The amount requested, 50 percent of the FY 1976 estimate, is for improvements to the Conservation Center that are essential for housing and care of scheduled animal arrivals. A number of tasks must be accomplished during the summer season for completion prior to late fall. Beyond that time animal transfers, in most cases, must be deferred until after severe winter weather has passed. This, in effect, would mean a lost breeding season should these improvement tasks not be undertaken in July and August. It is also necessary that improvements be accomplished on schedule to permit certain animal relocations in preparation for Master Plan construction steps in the Zoological Park.

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RESTORATION AND RENOVATION OF BUILDINGS

1974 Appropriation.....$1,070,000
1975 Appropriation.....$1,490,000
1976 Estimate.....$1,467,000

This account is used to fund major repairs, alterations, and improvements of a long-term nature and benefit. From time to time, it is used also for construction of major additions to existing facilities or for minor new temporary or permanent buildings or other facilities. Facilities planning and studies and other related expenses may be funded from this account. Projects undertaken are in support of research, care, and protection of collections; public accommodation and safety; and maintenance and development of a valuable physical plant and natural areas. Work is accomplished primarily by contract. There are occasional projects not lending themselves to contract. For example, suitable contractors cannot be located or their estimates are exorbitant in relationship to the proposed job. In such cases, accomplishment of the work by other means, such as the purchase with this appropriation of supplies, materials, and equipment and the use of in-house or temporary labor, is the most cost-effective solution.

With funds now available, the Institution is carrying out several significant projects, most notably the air-conditioning and phased interior and exterior renovation and restoration of the Arts and Industries Building for special Bicentennial exhibition purposes. Continuation funding for certain of these projects and funding for other repair and major maintenance work are sought in the FY 1976 appropriation.

An amount of $1,467,000, a reduction from the FY 1975 level, is required for these projects.

1.	Mt. Hopkins, Arizona, Observatory road improvements and telescope annex facility	$ 200,000
2.	History and Technology Building and Natural History Building fire control systems	150,000
3.	Tropical Research Institute laboratory improvements	75,000
4.	Arts and Industries Building renovation	250,000
5.	South Yard improvements	200,000
6.	History and Technology Building library addition planning	125,000
7.	General building and facility repairs and improvements	467,000
		$1,467,000

Details on these projects appear in the following justifications.

1. Mt. Hopkins, Arizona, Observatory Road Improvements and Telescope Annex Facility ($200,000)

For several years the Smithsonian Astrophysical Observatory (SAO) has been following a phased plan of repairs and improvements at its Mt. Hopkins Observatory near Tucson, Arizona.

Construction of a commercial power line by the Citizens Utilities Co. from the Amado area in the valley to the ridge area distribution point along with the installation

of switchgear for standby generators is planned to be completed in FY 1975. Extension of the distribution system to the summit bowl area is planned for completion in FY 1976. No additional funds are required for this project in FY 1976. Engineering source survey and design of a water supply system is planned for completion in FY 1976. Holding tanks at the summit and ridge sites were installed in FY 1975. Construction of the water system is planned for FY 1977. No additional funds are requested for this project in FY 1976.

Repairs and improvements to some of the more dangerous sections of the Mt. Hopkins access road will be completed in FY 1975. Because of the heavy hauling necessitated by the installation of the MMT at the summit site, the paving of the improved sections of the ridge area and summit access roads will be deferred until FY 1977. The Mt. Hopkins road improvement plan, prepared by consulting engineers, calls for the rerouting of the existing section of the access road through Montosa Canyon as the next phase of the project for safety and economic reasons. This section of steep (12 percent to 18 percent grades), narrow roadway is the most dangerous portion of the access road. It severely restricts the type of vehicles that may safely traverse it, as well as the hauling capacity of trucks delivering materials and equipment to the Observatory. It is estimated that significant savings in hauling bulk material for future paving operations will result from the construction of this new 7 percent grade road to bypass the existing treacherous route. An amount of $125,000 is requested for this project for FY 1976. The plan calls for continued improvements to the sections below the Montosa Canyon in FY 1977 and future years.

A 24-inch telescope and its dome, given to SAO by the State University of New York at Stony Brook, Long Island, has been installed near the existing 60-inch telescope facility. Work and storage space are needed at both instruments if they are to be used effectively. An amount of $75,000 is required to design and construct laboratory, darkroom, and storage space.

2. History and Technology Building and Natural History Building Fire Control Systems ($150,000)

Studies by safety and fire protection experts have shown that much work needs to be done in the History and Technology and Natural History Buildings to improve fire safety. Fire detection and sprinkler protection is presently lacking in most public areas and should be installed as changes take place in exhibit and other public areas. Similar safeguards are needed in areas where museum collections are housed and where research work takes place. Other fire protection needs include the addition of booster pumps in order to give adequate water pressure and the installation of fire doors and drains. Funding of $150,000 is sought to continue this long-term phased program.

3. Tropical Research Institute Laboratory Improvements ($75,000)

The Smithsonian Tropical Research Institute, centered in Panama, is engaged in basic biological research especially concerning questions of ecology and evolution in the tropics. Its present facilities are inadequate. The Tivoli Hotel site (in the Canal Zone but adjacent to the Republic of Panama) has been made available to the Institute. It offers several important advantages as the headquarters site to include offices and laboratories for administrative staff and scientists and spaces for visiting researchers and students. The site has a sturdy masonry structure, previously used as a kitchen building, which was deemed suitable for renovation to meet some of these needs.

Work that has been completed or is underway includes roofing, new electrical and mechanical distribution systems, and air-conditioning, plumbing, and a new entrance. The plan of work for FY 1976 to complete this project calls for the partitioning of interior work spaces, finishing floors, installing lighting, and painting. An appropriation of $75,000 is requested.

4. Arts and Industries Building Renovation ($250,000)

Estimates in the early 1970's of the cost of the renovation and restoration of the historic 1879 Arts and Industries Building amounted to about $5,000,000. The FY 1973 appropriation provided $3,355,000 for the major portion of the required work and for recreating the original appearance of the rotunda and four main exhibition halls. Major improvements include installing heating, ventilation, and air-conditioning systems; replacing obsolete and inadequate electrical and utilities systems; providing additional public and staff restrooms; and related demolition and restoration incidental to the accomplishment of the project's objectives. This initial work was started in February 1974 and is expected to be completed in February 1976. Prior to this completion, exhibits installation will begin for a major presentation, 1876 - A Centennial Exhibition, funded as part of the Institution's Bicentennial program.

Based on current costs, about $2,300,000 of additional work remains to be done to produce a completely restored and renovated facility. This additional work is important to the long-term proper functioning of the building and to protect the structure from weather damage. Major additional jobs to be done include new roofing and insulation (a survey is now underway to determine the extent of the requirement); the repair, replacement, and painting of windows, including double glazing where necessary to maintain proper temperature and humidity conditions and save on utility costs; the installation of an elevator, especially to aid handicapped persons; installation, repair, and painting of arched ceilings; and the preparation of interior spaces for staff and visitor uses. An amount of $300,000 was appropriated in FY 1975 towards these needs. The FY 1976 budget request for $250,000 will sustain renovation progress with the balance of the required funding to be sought in future years.

5. South Yard Improvements ($200,000)

Funds are required to continue immediate improvements and plan for long-term development of the South Yard, the area bounded by the original Smithsonian Building, the Arts and Industries Building, the Freer Gallery of Art, and Independence Avenue. The immediate goal is to remove much of the aggregation of unattractive sheds, structures, and surface facilities and develop an inviting, restful garden area. The longer-range plan is to maintain this environment while developing the site for additional productive uses to include areas for research, education, and other public services.

Funds available in FY 1975 will initiate planning for the development of this site, for demolition and removal of existing structures and facilities, and for preliminary construction phases. The FY 1976 requirement is to complete the Bicentennial preparation including landscaping, plantings, fixtures and furnishings, and to plan for the phased development of the site subsequent to the Bicentennial. An amount of $200,000 is sought for these purposes.

6. History and Technology Building Library Addition Planning ($125,000)

The National Museum of History and Technology's collections of approximately 16 million artifacts are unparalleled in any other institution in the world. Of this number approximately half are related to the history of science and technology. This collection and staff are presently supplemented with considerable holdings of archival materials which lack space to be catalogued and used.

Recently, the largest single private library on the history of science and technology in the world has been given to the Museum by Bern Dibner as a research resource. This extraordinary collection contains more than 25,000 rare books, over 300 incunabula (books printed before 1501), and historic manuscripts, prints, letters of scientists, portraits, science medals, instruments, and apparatus. The library is presently housed in a permanent installation and it is offered to the Museum on the basis that suitable accomodation can be provided. A conservative estimate of the present value of this collection is ten million dollars.

The offer of this library provides the Museum with a unique opportunity. It makes it possible to combine under one roof the largest collection of scientific artifacts with the greatest existing staff of subject experts and the finest library resource on the subject, a combination which would serve as a magnet to attract important scholars and students from all over the world.

The planned sixth floor addition will allow the development of an historical research center in which the Museum's present and future library holdings will be centralized for the use of staff and visiting scholars and students as well as members of the public as appropriate. The Museum's programs in museum and conservation training, pre- and postdoctoral fellowships, and visiting scholars in residence will be accommodated on this floor as well as the newly established Dwight D. Eisenhower Center for Historical Research.

Funds are required to complete the final design effort for the research and library facility for which partial funds were appropriated in FY 1973 and 1974.

7. General Building and Facility Repairs and Improvements ($467,000)

The Smithsonian has major museum buildings (ranging in age from new to well over 100 years old) with a replacement value of several hundred million dollars, many lesser structures used for research, exhibition, collections management, and administrative purposes, and several thousand acres of land devoted to research, conservation, and education. Heavy public use of these facilities, general deterioration because of age and weathering, safety requirements, and the occasional need to make improvements or additions to keep pace with program requirements create a need for regular, annual attention. Anticipated, mostly major, needs are budgeted in this account under specific building or project headings. There is strong need, however, for funds for planning, engineering, repair, and improvement response to other projects, including those arising during the year, that are beyond the capability of the Institution's maintenance support effort. Examples of such work are: interior reconstructions or other improvements to meet program requirements; installation of new or replacement plumbing, electrical, and mechanical distribution systems, including heating, ventilating, and air-conditioning; roof repairs and replacements; maintenance and repairs to masonry and other building exteriors to prevent leaks or structural damage; and major repairs to elevators and escalators.

RESTORATION AND RENOVATION OF BUILDINGS

FY 1976 Estimate and July 1 - Sept. 30, 1976 Period

Project	FY 1976 Estimate	July 1 - Sept. 30, 1976 Estimate
1. Mt. Hopkins, Arizona, Observatory road improvements and telescope annex facility	$200,000	$50,000
2. History and Technology Building and Natural History Building fire control systems	150,000	35,000
3. Tropical Research Institute laboratory improvements	75,000	-
4. Arts and Industries Building renovation	250,000	50,000
5. South Yard improvements	200,000	-
6. History and Technology Building library addition planning	125,000	-
7. General building and facility repairs and improvements	467,000	265,000
Totals	$1,467,000	$400,000

SMITHSONIAN INSTITUTION
RESTORATION AND RENOVATION OF BUILDINGS

PROGRAM AND FINANCING - TRANSITION PERIOD
(in thousands of dollars)

Identification code 32-50-0132-0-1-503	19 actual	19 estimate	19 estimate
	July 1-Sept. 30, 1976		
Program by activities:			
Planning, Design, and Construction (program costs, funded)	434		
Change in selected resources (undelivered orders)	- 34		
10 Total obligations	400		
Financing:			
40 Budget authority(appropriation)	400		
Relation of obligations to outlays:			
71 Obligations incurred, net	400		
72 Obligated balance, start of period	100		
74 Obligated balance, end of period	...		
90 Outlays	500		

Justification for Transition Period

The transition period will be used to sustain progress on certain continuing projects and needs described in the FY 1976 budget, taking advantage of favorable weather conditions for outside projects and scheduling work in such a way to avoid interference with Bicentennial summer visitation. Funds requested will be used for the following projects:

Mt. Hopkins, Arizona, Observatory road improvements	$50,000
History and Technology and Natural History Buildings fire control systems	35,000
Arts and Industries Building renovation	50,000
General building and facility repairs and improvements	265,000
Total	$400,000

Mt. Hopkins, Arizona, Observatory road improvements $50,000

The requested amount, 25 percent of the FY 1976 budget estimate, will continue the program of correcting safety, drainage, and maintenance problems of the Mt. Hopkins Observatory access road for the protection of staff and visitors and to facilitate operations of the observatory. Portions of the improved road will be paved to eliminate dust problems and to extend the life of the road.

History and Technology and Natural History Buildings fire control systems $35,000

Funds will be used to sustain the phased effort to improve fire detection and extinguishing systems in public, collection, and work spaces in the History and Technology and Natural History Buildings for the safety and protection of visitors, staff, art, science, and history objects, and the physical plant. This proposed amount is slightly less than 25 percent of the FY 1976 estimate.

Arts and Industries Building renovation $50,000

The air conditioning and basic renovation of public spaces of the Arts and Industries Building will be accomplished in time for its use for the 1876 - A Centennial Exhibition. Substantial additional work (roof, windows, insulation, etc.) needs to be done to protect the investment in the public areas and to prepare other interior spaces for staff and visitor use. The requested amount is 20 percent of the FY 1976 budget but will maintain steady progress towards the complete renovation of this 1879 structure.

General building and facility repairs and improvements $265,000

The Institution's physical plant is valued at several hundred million dollars in replacement costs. Substantial funds should be budgeted each year to protect this plant from deterioration by meeting a wide range of major preventive and corrective maintenance. Despite surveys of the buildings and facilities, problems cannot always be detected sufficiently in advance for specific budget identification. Although somewhat more than half of the FY 1976 level, the transition period amount represents a sound investment in needs that are certain to become realities.

CONSTRUCTION
(Liquidation of Contract Authority)

1974 Appropriation	$17,000,000
1975 Appropriation	$ 7,000,000
1976 Estimate	$ 3,000,000

Construction of the National Air and Space Museum continues at a pace which will ensure the building's completion on schedule--by June 1975--and within the authorized funding. At that time, the installation of exhibits will begin in preparation for the public opening on July 4, 1976.

The construction manager system (under the supervision of the General Services Administration) continues to perform with efficiency and effectiveness. The project has been divided into 22 construction contract packages and two supply contract packages. Five of the construction contracts have been completed. These are: excavation; water main relocation; structural steel; metal decks; and roofing. Four contracts are in the final stages. These are: foundations; window walls; skylights; and masonry. The remaining contracts are on schedule and in various states of completion. These are: marble; mechanical; electrical; elevators and escalators; concrete slabs; painting; fireproofing; kitchen equipment; miscellaneous metal; carpentry; spacearium dome; landscaping; and graphics. The two supply contracts are for carpet, which is now being laid. In addition, contracts are being processed for the purchase and installation of necessary equipment for offices, shops, cafeteria, garage, library, work and research areas, and building control and security functions; protective or decorative treatment of walls, entrances, and approaches; theater and planetarium seating and projection systems; gallery structures and other requisite equipment which will permit full and efficient use of the building, its exhibit galleries and its other facilities.

The liquidation of the final $3,000,000 of contract authority is requested in FY 1976 consistent with the timely completion of the building for its public opening.

SMITHSONIAN INSTITUTION
"Salaries and Expenses"

Report of Appropriation by Objects
(In thousands of dollars)

	1974 Actual	1975 Estimate	1976 Estimate	Increase '76 over '75
11 Personnel Compensation.....	36,294	44,597	48,991	4,394
12 Personnel Benefits.....	3,075	3,850	4,332	482
21 Travel & Transportation of Persons.....	620	644 /1	810 /1	166
22 Transportation of Things.....	295	331	411	80
23 Rent, Communications, and Utilities.....	4,143	5,499	7,103	1,604
24 Printing and Reproduction....	1,022	1,134	1,383	249
25 Other Services.....	6,164	7,314	8,367	1,053
26 Supplies and Materials.....	2,715	2,928	3,403	475
31 Equipment.....	3,453	2,692	2,916	224
32 Lands and Structures.....	8	507	507	-
41 Grants.....	1,078	1,190	1,171	-19
42 Insurance, Claims, and Indemnities.....	1	20	14	- 6
Total Appropriation.....	58,868	70,706/2	79,408/3	8,702/3

/1 Excludes $21 additional travel authority which is to be allocated for priority purposes to Smithsonian user units.

/2 This amount includes $2,917 for pay and utility costs supplementals.

/3 This amount includes $1,873 for necessary pay and $637 for other uncontrollable increases.

SMITHSONIAN VISITORS
(By fiscal year)

Fiscal Year	Smithsonian Institution Building	Arts and Industries Building	Museum of Natural History	National Air & Space Building	Freer Gallery of Art	Museum of History & Technology[1/]	Fine Arts & Portrait Galleries[2/]	Renwick Gallery[3/]	Total[4/]
1961	1,024,526	2,912,371	2,047,973	987,858	130,746				7,103,474
1962	1,222,112	3,471,050	2,113,053	1,986,319	130,597				8,923,131
1963	1,630,280	3,534,182	2,288,397	2,673,618	183,359				10,309,836
1964	1,311,061	2,457,243	2,512,306	1,854,186	168,625	2,509,774[1/]			10,813,195
1965	1,065,635	2,028,175	3,051,472	1,705,683	210,972	5,091,776			13,153,713[5/]
1966	870,010	1,746,715	2,988,006	1,494,922	222,089	4,829,112			12,150,854
1967	1,020,312	1,638,873	3,409,957	1,484,422	212,920	5,546,102			13,312,586
1968	847,176[6/]	1,344,622	3,257,957	1,123,698	169,533	4,750,023	30,888		11,523,897[7/]
1969	275,259[6/]	1,493,141	2,916,749	1,225,959	179,374	4,174,071	166,177		10,430,730[8/]
1970	[6/]	2,557,155	3,269,791	1,839,373	217,305	5,483,555	216,523		13,583,702
1971	681,255	1,985,732	3,456,755	1,337,445	190,425	5,955,128	194,468		13,801,208
1972	819,617	2,306,071	3,414,640	1,104,151	230,475	6,808,526	246,657	105,186	15,035,323
1973	807,294	2,285,603	3,306,105	1,223,917	204,858	6,905,339	254,005	165,846	15,152,967
1974	739,651	2,040,731	3,067,694	1,285,598	219,346	5,850,227	329,487	175,672	13,708,406

1/ Museum of History and Technology opened January, 1964.
2/ National Collection of Fine Arts opened May, 1968 and the National Portrait Gallery in October, 1968.
3/ Renwick Gallery opened January, 1972.
4/ An additional 2-3,000,000 visitors to the National Zoological Park annually and 50,000 to the Anacostia Museum are excluded from these totals.
5/ July-August, 1964, certain Smithsonian Institution buildings were open 4:30 to 10 p.m. for the first time.
6/ Building closed for renovation October, 1968.
7/ Reflects the significant decrease in visitors to the Nation's Capital in the first six months of CY 1968 due to unsettled local conditions.
8/ Fiscal year 1969 visitor totals represent the effect of local conditions in late 1968 on visitor attendance. During CY 1969, a total of 12,438,909 visitors came to the Smithsonian, an increase of 25 percent over CY 1968.

NATIONAL GALLERY OF ART

"Salaries and Expenses"
ESTIMATES FOR THE FISCAL YEAR 1976

HIGHLIGHT STATEMENT

1975 Requirement and 1976 Request

The Congress appropriated $6,623,000 for "Salaries and Expenses, National Gallery of Art, 1975." Wage-board pay increases effective May 12, 1974 and October 27, 1974, and a general schedule pay increase effective October 13, 1974, will raise current-year operating costs $302,000 above the amount appropriated. A 1975 supplemental appropriation to cover these increases is anticipated. Including the supplemental appropriation anticipated for pay increases, the total requirement for fiscal year 1975 is $6,925,000. This amount will support an average employment of 393 in the 426 full-time permanent positions authorized. The appropriation requested for fiscal year 1976 is $7,598,000--a net increase of $673,000 over the 1975 requirement.

1976 Program

Nondiscretionary increases in 1976 total $395,700. This is the amount required to place 15 positions (to be filled for only one-half of the current-year) on an annual basis; to place current-year pay increases on an annual basis; to pay statutory within-grade promotions and wage-board step increases; to pay compensation and benefits for the extra compensable day in fiscal year 1976; to pay an additional amount to the Department of Labor for accident compensation payments; and to pay additional amounts for steam and electricity due to rate increases.

Increases for 21 new positions and related costs total $214,700. Three of these positions are to improve the in-house capability in the conservation of the collections; three positions are to provide sufficient staff for the continued growth of the fine arts library which will serve the study center planned in the new East Building; two positions are to help with increased workloads in temporary exhibitions and art loans; two positions are to provide checking services at the Seventh Street entrance to the building which in 1976 will be open regularly to the public; and the remaining eleven positions are to strengthen protection of the building and the irreplaceable art objects.

Increases in materials, equipment, and services to sustain established functions total $85,300. This total includes $54,000 for additional support of temporary exhibitions; $6,300 for the replacement of an offset duplicating machine; $20,000 for the increased costs of general supplies and materials; and $5,000 for storage cases for archival photographs.

Increases in temporary employment totals $21,600. This amount will pay for the employment of three additional summer interns and a space planner to assist in the detailed planning for occupancy of the new East Building.

The increases summarized above total $717,300, but are offset by $44,300 in decreases from the current year for a net increase of $673,000.

Authorizing Legislation

This request for an appropriation is based on the premises contained in section 4(a) of the Joint Resolution of Congress,

March 24, 1937, (20 U.S.C. 71-75) in which:

> "The faith of the United States is pledged that...the United States will provide such funds as may be necessary for the upkeep of the National Gallery of Art and the administrative expenses and costs of operation thereof, including the protection and care of works of art acquired by the Board, so that the National Gallery of Art shall be at all times properly maintained and the works of art contained therein shall be exhibited regularly to the general public free of charge."

NATIONAL GALLERY OF ART

Salaries and Expenses

Appropriation, 1974	$6,237,000
Appropriation, 1975, including anticipated supplemental of $302,000	6,925,000

Summary of Increases and Decreases

1.	To pay, on a full year basis, wage and salary increases, effective for only a portion of the current year	96,100
2.	To pay personnel compensation and benefits to place 15 positions (filled for only 6 months in 1975) on an annual basis	108,500
3.	To pay statutory within-grade promotions and wage-board step increases	18,000
4.	To pay personnel costs for one extra compensable day in fiscal year 1976	22,200
5.	To pay for increase in costs of accident compensation payments	10,900
6.	To pay for increased costs of steam and electric current usage	140,000
7.	To pay for 19 man-years of employment in 21 new positions	214,700
8.	To pay for an increase in the support of temporary exhibitions	54,000
9.	To pay for the replacement of an offset duplicating machine	6,300
10.	To pay for storage cases for archival photographs	5,000
11.	To pay for the increases in the costs of supplies and materials	20,000
12.	To pay for the increase in temporary employment of a space planner and 3 summer interns	21,600
13.	Reduction due to non-recurring equipment and supply purchases	-44,300
	Net change, 1976	+673,000
	Budget estimate, 1976	$7,598,000

EXPLANATION OF INCREASES AND DECREASES

1. Additional cost of current-year wage and salary increases, $96,100

Wage rates under the Federal Wage System were increased by 6.5%, effective October 27, 1974. In the current year the increased rates will be in effect for 17.6 bi-weekly pay periods at an estimated cost

of $51,000. For the additional 8.6 pay periods in 1976, the added cost will be $27,000.

Salary rates for General Schedule employees were increased by 5.52%, effective October 13, 1974. These new rates are effective for 18.6 bi-weekly pay periods in the current year at an estimated cost of $166,000. The added cost for the additional 7.6 pay periods in 1976 is $69,100.

2. Personnel costs to place 15 positions (filled for only 6 months in 1975) on an annual basis, $108,500

Fifteen new positions were authorized for the current year, but funds were provided to cover employment costs for only the last half of the year. The additional amount needed to support these positions for the full year in 1976 is $108,500.

3. Personnel costs for statutory within-grade promotions and wage-board step increases, $18,000

The net cost of within-grade promotions in the GS series and wage-board step increases is estimated at $18,000 for fiscal year 1976:

$9,400 for 345 General Schedule positions; and
$8,600 for 102 wage-board positions.

4. Additional compensable day in 1976, $22,200

Fiscal year 1976 covers 262 compensable days--one more than the 261 in the current year. Pay and benefits for an average employment of 421 in full-time permanent positions is estimated at $22,200 for this extra day of compensation.

5. Increase in accident compensation payment, $10,900

Accident compensation payments, based on the annual billing from the Bureau of Employees' Compensation, U. S. Department of Labor, amount to $19,789 for 1974. This amount is payable in 1976 and exceeds the current-year payment by $10,900.

6. Increased costs of steam and electric current usage, $140,000

The average effective rate per kilowatt hour now being paid for electricity is 2.90 cents--54.2% greater than the 1.88 cents per kilowatt hour used to compute the $157,000 estimate for electric current included in the 1975 budget. On October 14, 1974 we were notified by GSA that steam would be charged at the rate of $4.61 per 1,000 pounds retroactively to July 1, 1974. This new rate represents a 66.4% increase over the rate used to calculate the current-year amount in the 1975 budget. At present rates, our electricity and steam costs for the current year are now estimated at $231,000 and $175,000 respectively--$140,000 more than the amount included in the 1975 budget for these utilities.

7. Employment in 21 new positions and related costs, $214,700

The 21 new positions are justified below under five functional groups:

a. Positions for the Library ($31,500)

	Grade	Annual Salary
Librarian	GS-11	$15,481
Librarian	GS-9	12,841

Clerk-Typist	GS-4	$ 7,596
Total compensation		35,918
Personnel benefits		3,197
Annual cost		$39,115

The $31,500 requested will pay the above costs for approximately three quarters of the year and will allow $2,200 for office furniture and equipment.

Thirteen positions are authorized for the Library during the current year, including one new position. During the past year, the Gallery acquired 2,516 books, 1,131 pamphlets, and 363 bound volumes of periodicals. There were approximately 23,000 uncataloged items on hand as of June 30, 1974. As stated in past budget justifications, funds donated for the specific purpose are being used to acquire books for the fine arts library that will serve the Center for Advanced Study in the Visual Arts to be housed in the new East Building.

For fiscal year 1976 three additional positions are requested to help bring the processing functions of the Library into balance with its acquisitions. The GS-11 and 9 Library positions will provide the professional skills and the GS-4 clerk-typist the typing assistance, to cope with this increased acquisition rate. Of the present staff of 13, only two employees are typists with one being Secretary to the Chief Librarian.

b. Positions for Conservation Laboratory ($46,200)

	Grade	Annual Salary
Chief, Conservation and Science	GS-15	$29,818
Assistant Conservator (Paintings)	GS-11	15,481
Clerk-Typist	GS-5	8,500
Total compensation		$53,799
Personnel benefits		4,788
Annual cost		$58,587

The $46,200 requested will pay the above costs for almost three quarters of the year and will provide $2,300 for office furniture and equipment.

A total of five positions have been authorized for the Conservation Laboratory over the last three years. Prior to that time art restoration services, on a limited scale, were provided under contractual arrangements with private individuals or firms. This method is no longer satisfactory as it does not produce the standard of care essential for the preservation of irreplaceable works of art. No work of art should be acquired for the National Gallery of Art collection without a thorough conservation report on its condition and its chance of survival. Works of art, especially paintings, where deterioration is occurring may be seriously jeopardized by physical handling or movement or jarring. Some of the conservation work in such cases must be done on the spot in the galleries and all of it done within the building. In addition, many objects in the collections cannot be removed form the premises without violating stipulation of

the instruments of gift. Hence, most of the Gallery's masterpieces cannot be sent out for analyses or treatment. Thus, the National Gallery of Art must establish adequate conservation and scientific-examination facilities "in-house."

From the National Gallery of Art's 22-year-old research project at Carnegie-Mellon University, the Gallery has acquired ownership of microscopes, color measuring equipment, gas chromotographs and nuclear-science detection devices. The foundation which has donated funds for the support of this project has within the past year indicated a reluctance to continue the support as a long-term undertaking. Therefore, as soon as staff and space are available within the Gallery the project is to be terminated. In anticipation of this end, space is being provided through the use of funds donated for the purpose as a part of our current building program.

The three positions listed above will provide the additional staff needed to establish an "in-house" capability in the areas of conservation most important to the Gallery's collections.

c. Positions for exhibitions, loans, and registration, ($18,200)

	Grade	Annual Salary
Draftsman-Installationist	GS-9	$12,841
Clerk-Typist	GS-4	7,596
Total compensation		$20,437
Personnel benefits		1,819
Annual cost		$22,256

The $18,200 requested will pay the above costs for about three quarters in 1976, and will provide $1,500 for office furniture and equipment.

For the current year, a total of 13 positions are authorized for this staff. The installation of temporary exhibitions is becoming increasingly complex as new techniques are utilized to improve their educational qualities. We believe that more definite detailing of installation designs in the form of working drawings would save time and money. A GS-9 Draftsman-Installationist is requested to help achieve this end.

Only two secretarial-type employees are assigned to the exhibition, loan, and registration function--the Secretary to the Curator of Exhibitions and Loans and the Secretary to the Registrar. A GS-4 clerk-typist is needed to provide the additional clerical support required for the efficient operation of the total function.

d. Positions for protection of art exhibitions and building, ($102,000)

	Grade	Annual Salary
Guard, Corporal (2 at annual salary of $8,500)	GS-5	$17,000

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Guard, Private (9 at annual salary of $6,764)	GS-3	$60,876
Total compensation		$77,876
Personnel benefits		6,931
Annual cost		$84,807
Premium pay costs (night differential, holiday pay, and sunday premium) to cover 8 additional posts		6,786
Personnel compensation for 3 part-time guards, including premium pay		5,108
Personnel benefits for part-time guards		299
Total compensation and benefits		$97,000

The $102,000 requested will pay the above costs and provide $5,000 for equipment--uniforms, portable radios, firearms, and lockers.

The approved standard of protection for exhibition areas is based on having sufficient guards so located that all visitors and works of art in the exhibition areas will be within the view of a guard at all times. To maintain this standard of protection 154 full-time guard positions are required. For the current year 143 full-time guard positions are authorized. The requirement of 154 full-time positions is determined as follows:

Required days of duty per year per man		261
Less: No. of days off--Annual leave	22	
Sick leave	11	
Average number of excused holidays	3	36
Average number of days of duty per man (actually worked)		225

$$\frac{\text{Days Gallery open to public during year}}{\text{Average no. of days of duty per man (actually worked)}} = \frac{363}{225} = 1.613 \text{ man-years required per guard post}$$

Total posts x guard requirement per post = 94 x 1.613 = 152

Plus: Construction areas (posts manned only 5 days per week)	1
Captain of the Guard (overall supervision)	1
Total full-time guard requirements	154

Four of the seven additional guard posts required to meet the approved standard of protection are in the exhibition rooms; two posts are for the Seventh Street entrance which has been open to the public since the opening of the National Sculpture Garden last December; and one additional post is needed for general duty assignments. General duty assignments include: uniform maintenance, driving of the art truck, cleaning of firearms, inspection of fire extinguishers, handling of school tours, and other assigned duties.

In addition to these seven duty posts, three additional part-time guards are required to raise the standard of protection during the hours the Gallery is open to the public in the evenings from April 1 through Labor Day.

e. Positions for Checkroom Service, ($16,800)

	Grade	Annual Salary
Checkroom-Typist	GS-3	$ 6,764
Checkroom-Typist	GS-3	6,764
Total compensation		$13,528
Personnel benefits		1,204
Annual cost		$14,732
Personnel compensation for 2 part-time checkroom clerks (including premium pay)		1,481
Personnel benefits for part-time checkroom clerks		87
Total compensation and benefits		$16,300

The $16,800 requested will pay the above costs and provide $500 for equipment.

Two additional GS-3 checkroom-typists are requested to handle the new checkroom post at the recently opened Seventh Street entrance. In addition, two additional part-time checkroom employees are required to man this new post during the evening hours in the spring and summer.

8. Increased support of temporary exhibitions, $54,000

A total of $210,000 is provided for in the current-year budget to help cover the costs of the Gallery's temporary exhibitions. This amount is being supplemented by $70,000 from the income of the Gallery's endowment fund for a combined support of $280,000. The amount of this income is relatively fixed and will not be sufficient in 1976 to provide the additional funds necessary to pay the higher costs of insurance, travel, transportation, and installation materials and services associated with temporary exhibitions. To enable the Gallery to continue the organization and scheduling of temporary exhibitions of national and international importance an additional $54,000 is requested for fiscal year 1976. In fiscal year 1976 the Gallery will present two major exhibitions in celebration of the Revolution Bicentennial--The "European Vision of America" and the "Eye of Thomas Jefferson." The following tabulation indicates

the support provided temporary exhibitions (actual and estimated) 1972-1976:

	Actual 1972	Actual 1973	Actual 1974	Estimate 1975	Estimate 1976
Gallery endowment fund	$ 54,000	$ 97,000	$ 64,000	$ 70,000	$ 70,000
Gallery appropriation	132,000	137,000	288,000	210,000	264,000
Total support	$186,000	$234,000	$352,000	$280,000	$334,000

9. Replacement of offset duplicating machine, $6,300

A new offset duplicating machine is urgently needed to replace the existing machine which by 1976 will have been in use 15 years. Because of its age and near-obsolescence the machine cannot efficiently produce the quality and quantity of work required. A new machine capable of handling the current workload is obtainable under G.S.A. contract for $6,300.

10. Equipment for Photographic Archives, $5,000

Cabinets are required for the filing of approximately 58,000 photographs which are presently stored in packing boxes. To serve the scholarly purposes for which they were acquired, these photographs must be organized, indexed, and stored in such a manner as to facilitate their retrieval. It is estimated that the present need can be met by the purchase of 50 five-drawer filing cabinets at a total cost of $5,000.

11. Increase in cost of supplies and materials, $20,000

The amount expended for supplies and materials--with the exclusion of Extension Service materials, and supplies used in temporary exhibitions--has almost doubled over the past two years. This is a result of both increases in unit prices and increases in quantities used. It is expected that these operating supplies and materials will cost $169,000 for the current year. Consistent with our experience over the past several years, we are requesting an increase of $20,000 for the purchase of operating supplies and materials in fiscal year 1976. The following tabulation gives the cost of operating supplies and materials for the years 1972-1976:

Actual 1972	Actual 1973	Actual 1974	Estimate 1975	Estimate 1976
$79,333	$120,763	$157,211	$169,000	$189,000

12. Increase in temporary employment, $21,600

Seven summer employees (students) served as interns, working for museum professionals in various functions of the Gallery, during the past summer. This type of summer employment has proved beneficial to both the students and the Gallery. We believe that this opportunity for service should be available to a larger number of students interested in the various fields of museum work. Five thousand dollars is requested to employ three additional students during the summer.

A GS-11 Space Planner is needed to assist in the detailed planning for occupancy of the new East Building. The incumbent of this position will be concerned with the physical layout within

the offices and their furnishings and fixtures. This individual will also assist in the planning involved with the actual move-in phase. Other duties include the selection and coordination of the types of furnishings--lighting fixtures, furniture, carpeting, etc. The annual cost of this employment is $16,100 with an additional $500 for office equipment.

13. Non-recurring equipment and supplies, $44,300

Non-recurring equipment and supply items planned for purchase in 1975 total $44,300--an automatic collator, replacement filter banks for the air conditioning system, and equipment for 15 new positions.

STATUS OF PROGRAM

Changes in Management Requirement:

An average employment of 389 (including the full-time equivalent of part-time and intermittent employment) was maintained during fiscal year 1974--13 man-years under the 402 indicated in the 1975 budget. This reduced employment resulted in a saving of $229,974 which was used to cover increased costs in other objects due primarily to higher prices for goods and services and to the greater amounts required for temporary exhibitions. In total, 1974 obligations amounted to $4,864,791 for compensation and benefits, and $1,371,974 for all other obligations.

A total of $5,608,000 is estimated for personnel compensation and benefits in 1975 to support an average employment of 416 (including the full-time equivalent of part-time and intermittent employment). This estimate anticipates a supplemental appropriation of $302,000 to provide for the following pay increases: wage-board pay increases effective May 12, 1974, amounting to $85,000 in current-year costs; General Schedule pay increases effective October 13, 1974, amounting to $166,000 in current year costs; and wage-board pay increases effective October 27, 1974, amounting to $51,000 in current-year costs. The 15 new positions authorized for 1975 will be filled for only one-half of the year. The 1975 estimate for all other obligations is $1,317,000.

Funds are requested in 1976 to support an average employment of 447--an increase of 31 over the current year. Nineteen man-years of employment in twenty-one new positions account for 61% of this increase; 24% pertains to fifteen positions filled for only half of the current year; while the remaining 15% is attributable to increases in summer employment, part-time employment of guards and checkroom attendants during the evening hours, and the temporary employment of a Space Planner. Net increases in 1976 for personnel compensation and benefits total $480,000. Other increases include: $140,000 for steam and electric current; $54,000 for support of temporary exhibitions; $20,000 for supplies and materials; and $23,300 for equipment. Decreases from 1975 amounts total $44,300 in non-recurring items of supplies and equipment. The 1976 proposed appropriation of $7,598,000 exceeds the 1975 estimated amount by $673,000.

Accessions:

During the 1974 fiscal year 541 works of art were acquired, including 497 prints and drawings.

Special Exhibitions:

The following exhibitions were held at the National Gallery of Art during the fiscal year 1974:

American Glass: Watercolors from the Index of American Design--continued from the previous fiscal year through July 10, 1973.

Etchings by Rembrandt--continued from the previous fiscal year through August 14, 1973.

Prints of the Italian Renaissance--continued from the previous fiscal year through October 7, 1973.

American Impressionist Painting--July 1, 1973 through August 26, 1973.

Venetian Views: Etchings by Canaletto and Whistler--July 12, 1973 through December 26, 1973.

Sixteenth Century Italian Drawings from the Collection of Janos Scholz--September 23, 1973 through November 25, 1973.

American Art at Mid-Century I--October 28, 1973 through January 6, 1974.

Francois Boucher in North American Collections: 100 Drawings--December 23, 1973 through March 17, 1974.

American Textiles: Watercolors from the Index of American Design--December 26, 1973 through the end of the fiscal year.

Nineteenth-Century Sculpture--March 10, 1974 through May 27, 1974.

Art in the Age of Francesco Petrarca--April 6, 1974 through April 13, 1974

African Art and Motion--May 5, 1974 through the end of the fiscal year.

A Salute to Mozart: French Eighteenth Century Prints--May 9, 1974 through May 29, 1974:

Recent Acquisitions and Promised Gifts: Sculpture, Drawings, Prints--June 2, 1974 through the end of the fiscal year.

Extension Service:

This service circulates Gallery films, slide lecture sets, and film strips to schools and other organized groups. All materials are lent free of charge except for shipping expenses. A total of seventy-two copies of the film series, "Pioneers of Modern Painting," (12 sets consisting of 6 films each) were circulated in 2,759 bookings. Eight hundred and fifteen prints of 14 films on the National Gallery and its collections were circulated in 6,854 bookings--an increase of 1,455 bookings over 1973. Distribution of the "Civilisation" film series was continued with 283 copies of the films being circulated in 3,864 bookings in 1974. A total of 3,186 slide-lecture sets were circulated in 11,329 bookings. Distribution of our newest slide lecture, "What is Impressionism," was begun in April 1974. For the first time tape cassettes were included in the program as well as the standard long-playing record. Slide-lecture sets on long-term loan with school systems were used in 5,193 bookings--an increase of 105 bookings over 1973. Total bookings for all items numbered 29,999 compared with 29,432 in 1973.

Education Tours and Lectures:
The staff of the Education Office continued to give daily tours and talks in the galleries, morning and afternoon, throughout the year. The attendance for the scheduled tours was 58,361. Lectures, films and tours given by special appointment served 28,711 visitors. There were 52 Sunday auditorium lectures illustrated with art films or slides, attended by 13,954 persons. In addition, members of the Education Office prepared and recorded 43 radio broadcasts during the year.

Library Acquisitions:
During the year the Gallery library acquired 2,516 books, 1,131 pamphlets, and 363 bound volumes of periodicals. The library now has 31,276 books, 28,183 pamphlets, and 3,618 bound volumes of periodicals. A total of 74,128 photographs were acquired for the photographic collection. The collection now totals 403,555 items.

Photographic Work:
The Photographic Laboratory of the Gallery made 83,547 color slides, 936 black and white slides, 3,898 black and white negatives, 824 color transparencies, and 105 infrared and ultraviolet photographs, in addition to the prints required for study work and sale to the public.

Conservation Work:
A continuing project of the conservation department is the inspection of paintings in the collection and the recording of the information pertinent to their condition, both for the use of the conservators in setting treatment priorities and for the curators. In the current cycle of inspections, the Italian, Northern European, and Dutch paintings have been inspected. As part of the regular activities of the department, 159 paintings requested for loan were examined and advice given on their condition for travel. Six paintings being considered for acquisition received laboratory examinations including ultraviolet, microscopic and x-ray, and reports were written on their construction and condition. A major project undertaken was the restoration of the panel painting by the 14th-century Master of the Life of St. John the Baptist and a 15th-century Savanorola chair, both damaged by a vandal.

Concerts:
The Sunday evening concerts in the East Garden Court were continued throughout the year. These concerts are free to the public.

Attendance and Maintenance:
There were 1,263,690 visitors to the Gallery during the fiscal year 1974--a decrease of 355,891 from fiscal year 1973. The average daily attendance for the year was 3,481. The Gallery as a whole was maintained at a standard in keeping with the conditions of the gift of the building and the initial collection of works of art.

SALARIES AND EXPENSES

Object Classification (in thousands of dollars)

		1974 actual	1975 estimate	1976 estimate
	Personnel compensation:			
11.1	Permanent positions	4,057	4,736	5,125
11.3	Positions other than permanent	134	145	174
11.5	Other personnel compensation	290	297	310
	Total personnel compensation	4,481	5,178	5,609
12.1	Personnel benefits: Civilian employees	384	430	479
21.0	Travel and transportation of persons	50	36	43
22.0	Transportation of things	21	24	29
23.0	Rent, communications and utilities	384	380	520
24.0	Printing and reproduction	48	56	61
25.0	Other services	257	343	364
26.0	Supplies and materials	286	294	306
31.0	Equipment	127	158	144
32.0	Lands and structures	40	32	39
	Total costs, funded	6,078	6,931	7,594
94.0	Change in selected resources	159	-6	4
99.0	Total obligations	6,237	6,925	7,598

Personnel Summary

Total number of permanent positions	411	426	447
Full-time equivalent of other positions	23	23	26
Average paid employment	389	416	447
Average GS grade	6.35	6.48	6.42
Average GS salary	$11,515	$12,259	$12,157
Average salary of ungraded positions	$10,640	$11,478	$11,610

NATIONAL GALLERY OF ART
"Salaries and Expenses"
ESTIMATES FOR THE TRANSITION PERIOD
July 1, 1976 to September 30, 1976

Analyses by Activities
FY 1976 Estimate and July 1- Sept. 30 Period
(in thousands of dollars)

Activity	FY 1976 Estimate	Estimate July - Sept. 30, 1976
1. Management and operation	7,598	1,946
Total	7,598	1,946

SALARIES AND EXPENSES, NATIONAL GALLERY OF ART

For the upkeep and operations of the National Gallery of Art, the protection and care of the works of art therein, and administrative expenses incident thereto, as authorized by the Act of March 24, 1937 (50 Stat. 51), as amended by the public resolution of April 13, 1939 (Public Resolution 9, Seventy-sixth Congress), including services as authorized by 5 U.S.C. 3109; payment in advance when authorized by the treasurer of the Gallery for membership in library, museum, and art associations or societies whose publications or services are available to members only, or to members at a price lower than to the general public; purchase, repair, and cleaning of uniforms for guards and elevator operators, and uniforms, or allowances therefor, for other employees as authorized by law (5 U.S.C. 5901-5902); purchase, or rental of devices and services for protecting buildings and contents thereof, and maintenance, alteration, improvement, and repair of buildings, approaches, and grounds; and not to exceed $70,000 for restoration and repair of works of art for the National Gallery of Art by contracts made, without advertising, with individuals, firms, or organizations at such rates or prices and under such terms and conditions as the Gallery may deem proper, [$6,623,000] $7,598,000

For "Salaries and expenses" for the period July 1, 1976 through September 30, 1976, $1,946,000.

(20 U. S. C. 71-75; Department of the Interior and Related Agencies Appropriation Act, 1975.)

NATIONAL GALLERY OF ART
SALARIES AND EXPENSES

Program and Financing - Transition Period
(in thousands of dollars)

Identification code 32-50-0200-0-1-605	19 actual	19 estimate	19 estimate
	July 1 - Sept. 30, 1976		
Program by activities:			
Management and operation (program costs, funded)	2,107		
Change in selected resources (undelivered orders and stores)	-161		
10 Total obligations	1,946		
Financing:			
40 Budget authority (appropriation)	1,946		
Relation of obligation to outlays:			
71 Obligations incurred, net ..	1,946		
72 Obligated balance, start of period	697		
74 Obligated balance, end of period	-467		
90 Outlays	2,176		

Justification for Transition Period

The Gallery is requesting an appropriation of $7,598,000 for fiscal year 1976, and $1,946,000 for the period July 1 to September 30, 1976. The proposed appropriation for the transition period anticipates continuing employment at the June 30, 1976 level.

The $1,946,000 requested represents 25.6% of the 1976 fiscal year request. It exceeds one-fourth of the 1976 amount primarily because of: (1) the extra expense of keeping the Gallery open to the public in the evenings from July 1 through Labor Day; and (2) the savings to be realized in fiscal year 1976 by delaying the filling of eight new positions until the beginning of the second quarter.

WOODROW WILSON INTERNATIONAL CENTER FOR SCHOLARS

GENERAL STATEMENT

The Woodrow Wilson International Center for Scholars is the nation's "living memorial" to its 28th President. In its four years of operations, the Center has sought to commemorate both the scholarly depth and the public concerns of Woodrow Wilson through a program of advanced research and of communication between the world of ideas and the world of affairs. Through its fellowship and public service programs, the Center seeks to encourage the creative use of the unique human, archival, and institutional resources of the national capital for fundamental studies which will illuminate man's understanding of his past and present. The Center encourages historical and philosophical depth in its scholarly work; breadth of representation in its international company of fellows; and an active life of dialogue -- within the Center and within the Washington governmental and scholarly communities more broadly.

Finding and supporting the gifted individual to conduct advanced research on subjects of fundamental importance is the primary concern of the Center. As of January 1, 1975, the Board of Trustees had approved 144 fellowship appointments for scholars coming from a broad variety of disciplines and professions--social sciences, humanities and natural sciences, law, diplomacy, journalism and government. Approximately 60 percent of the scholars selected to date come from the United States; the remaining 40 percent have come from 27 other countries representing all major geographic regions. In addition, the Center has made 38 guest scholar appointments, and its facilities have been used by dozens of visiting scholars on an occasional basis.

The Center brings scholars to Washington for sustained periods of time, free from teaching and operational responsibilities into close communication with other scholars who are often approaching similar problems from different national, professional and disciplinary perspectives. Its fellowship program is organized in terms of three broadly defined academic divisions: Social and Political Studies, Historical and Cultural Studies, and a third entitled Resources, Environment and Interdependence.

The Center reserves a significant portion of its fellowship appointments within each of these divisions for scholars pursuing individual studies of their choice within the general theme of the Center. In order to insure a degree of program focus and shared scholarly interest, some appointments within each division are devoted to more specifically defined programs of study (problems of state and local governments, uses of the sea, etc.). Advisory panels of distinguished scholars in each of the areas of study are convened periodically to review applications and to recommend eligible candidates to the Director and Board of Trustees.

The Center's stipend policy as explained in previous years, is based on the practice of other advanced studies centers. Each appointed fellow needing financial support is asked in the first instance to devote his sabbatical, leave or other income to be received during the fellowship period toward his support while at the Center, and to seek outside foundation or other support for his study proposal whenever possible. Thereafter the Center's policy is to attempt to provide the fellow with a stipend rate which would be a no-gain, no-loss figure over his earned income rate in the preceding year within the individual limit of $30,000 of federal funds set by the Board of Trustees and with cost-of-living increases for each non-U.S. scholar to bring him to an approximately equivalent stipend rate with U.S. scholars of comparable experience and position.

The average fellowship cost to the Center, including stipend, travel for scholars and their dependents, and disbursement charges is $23,100. Most of the scholars appointed by the Center cannot be expected to come at a lower average cost than the one estimated. As indicated above, a substantial number of fellows will be devoting sabbatical or leave pay, foundation funds and other outside income to their support during the period of appointment at the Center.

Along with the fellowship program, a public service element of the Center's operations is designed to fulfill the role Congress defined for the Center in P.L. 90-637 of "strengthening the fruitful relation between the world of learning and the world of public affairs." Through its public service category the Center is able to increase and deepen the dialogue between scholars and the public sector, to expand the outreach of the Center's scholarship to the general public and to increase and diversify the uses of the scholarly resources of the Washington area.

As in the past, the trustees and staff are continuing to seek funds from private sources. In addition, a newly-organized Advisory Council has met during the past year and has started a systematic campaign of financial development. During the twelve-month period ending January 1, 1975, the Center raised $369,540.00 as opposed to $95,100 for the similar period last year. In addition, fellows appointed during the same twelve-month period have brought with them a total of $159,000.00 in outside support during the periods of their appointments at the Center in the form of sabbaticals, leave pay and other fellowships and grants.

Funding Estimates and Appropriation Request

	1974 Appropriation		1975 Appropriation		1976 Estimate	
	Pos.	Amount	Pos.	Amount	Pos.	Amount
Fellowship Program	--	427,000	---	462,000	--	462,000
Scholar Support	7	123,000	7	134,000	7	147,000
Public Service	--	----	5	92,000	5	88,000
General Administration	8	250,000	8	266,000	8	278,000
Total	15	800,000	20	954,000	20	975,000

Total Requested Federal Appropriation Increase $21,000

The Board of Trustees of the Wilson Center requests a federal appropriation for FY-1976 of $975,000, an increase of $21,000 over the Center's appropriation for FY-1975. This represents an on-going program identical with that of the current year, with the increase going exclusively to salary commitments. The increase is caused by the Center's having its full complement of 20 employees on board for a full year rather than part of the year as in FY-1975. Apart from salaries, all other elements of the Center's operations remain unchanged.

	1974	1975	1976	Difference
I. Fellowship Program	427,000	462,000	462,000	-------

The $462,000 requested will provide support for 20 full-year fellowships at an average cost of $23,000 apiece. This is the same amount appropriated in FY-1975. By a vigorous effort to encourage fellows to seek outside sources of support, especially for travel purposes, the Center has been able to maintain the average cost of a full-year fellowship at its FY 1975 level. The Center will continue to seek private funding for additional fellowships in order to keep the Center at the desired level of occupancy.

II. Scholar Support	1974	1975	1976	Difference
Library	22,000	26,000	26,000	-----
Consultations	13,000	9,000	9,000	-----
Seminars	7,000	2,000	2,000	-----
Personnel Costs	81,000	97,000	110,000	+13,000
Totals	123,000	134,000	147,000	+13,000

This category provides the Center with funds to maintain its library, pay the salaries of its library staff and that part of the clerical staff working exclusively for the fellows. It also provides funds under "Consultation" for the Center periodically to assemble scholar selection panels and to reimburse graduate students for their services as part-time research assistants to the fellows. Under "Seminars," the Center has funds available to pay overtime guard charges and additional cleaning fees necessitated by its program of special events.

III. Public Service	1974	1975	1976	Difference
Personnel Costs	----	55,000	60,000	+5,000
Printing	----	13,000	13,000	------
Travel	----	9,000	5,000	-4,000
Consultations	----	15,000	10,000	-5,000
Totals	----	92,000	88,000	-4,000

There are essentially two functions of broad public service that the Center is in a uniquely favored position to undertake on the basis of its past experience and its present resources: broadened dialogue between scholarship and the public sector; and expanded use of the unmatched scholarly resources of the Washington area.

The Center seeks to accomplish these ends through its program of evening dialogues and its publications activity. Both programs will continue in FY-1976 at the level of FY-1975. The only increase will be for salaries due to having personnel on board for an entire year rather than part of the year, as in FY-1975. In both its publishing activities and in its program of dialogues, the Center relies primarily on private contributions, with the federal support serving as a catalyst.

In the Center's experience, private fund-raising depends very heavily on the assurance of adequate federal support. One of the most effective arguments in securing private funds for programmatic activity with a small staff, and under difficult market conditions, has been the constancy of federal support.

IV. General Administration	1974	1975	1976	Difference
Personnel Costs	169,000	194,000	206,000	+12,000
Reimbursements to SI	20,000	30,000	30,000	------
Other Admin. Expenses	61,000	42,000	42,000	------
Totals	250,000	266,000	278,000	+12,000

Apart from the increase in personnel costs (necessitated by having all staff members on hand for a full year rather than part of the year, as in FY-1975), this category of the Center's operations remains unchanged. At the time of this submission, it is proposed to pay the Center's Director from private funds rather than federal funds during FY-1976.

Program and Financing (in thousands of dollars)

Identification code 32-50-0400-0-1-503	1974 actual	1975 estimate	1976 estimate
Program by activity:			
1. Research and scholarship	813	958	975
Total program costs, funded	813	958	975
Changes in selected resources (undelivered orders)	- 12	-	-
10 Total obligations	801	958	975
Financing:			
21 Unobligated balance available, start of year (-)	- 5	- 4	-
24 Unobligated balance available, end of year	4	-	-
Budget Authority	800	954	975
Budget Authority:			
40 Appropriation	800	954	975
Relation of Obligations to Outlays:			
71 Obligations incurred, net	801	958	975
72 Obligated balance, start of year	323	282	282
74 Obligated balance, end of year	-282	-282	-282
90 Outlays	842	958	975

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 32-50-0400-0-1-503	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions	270	286	322
11.3 Positions other than permanent	18	26	26
11.5 Other personnel compensation	-	-	-
11.8 Special personal services payments			
Total personnel compensation	288	312	348
Personnel benefits:			
12.1 Civilian	22	25	28
21.0 Travel and transportation of persons	24	36	32
22.0 Transportation of things	1	-	-
23.0 Rent, communications, and utilities	22	11	12
24.0 Printing and reproduction	-	25	25
25.0 Other services	435	516	497
26.0 Supplies and materials	9	16	11
31.0 Equipment	12	17	22
Total Costs, funded	813	958	975
Changes in selected resources	- 12	-	-
99.0 Total obligations	801	958	975

Personnel Summary

Identification code 32-50-0400-0-1-503	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions	15	20	20
Full-time equivalent of other employees	1	1	1
Average number of all employees	16	21	21
Average G.S. Grade	9.66	9.05	9.05
Average G.S. Salary	16,575	14,957	14,957

DETAIL OF PERMANENT POSITIONS

32-50-0400-0-1-503	1974 actual	1975 estimate	1976 estimate
GS-14 $24,247 to $31,519	1	1	1
GS-13 $20,677 to $26,878	2	2	2
GS-12 $17,497 to $22,744	-	1	1
GS-11 $14,671 to $19,072	-	1	1
GS-9 $12,167 to $15,821	2	2	2
GS-8 $11,029 to $14,341	1	-	-
GS-7 $9,969 to $12,957	4	5	5
GS-6 $8,977 to $11,668	2	3	3
GS-5 $8,055 to $10,467	1	1	1
GS-4 $7,198 to $9,358	-	2	2
Ungraded	2	2	2
Total permanent positions	15	20	20
Unfilled positions	- 2	-	- 1
Total permanent positions, end of year	13	20	19

Analysis by Activities

FY 1976 Estimate and July 1-Sept. 30 Period

Activity	FY 1976 Estimate	Estimate July 1-Sept. 30, 1976
1. Fellowship Program	462,000	115,000
2. Scholar Support	147,000	37,000
3. Public Service	88,000	22,000
4. General Administration	278,000	70,000
Total	975,000	244,000

PROGRAM AND FINANCING - TRANSITION PERIOD
(in thousands of dollars)

Identification code 32-50-0400-0-1-503	
Program by activity:	July 1 - Sept. 30, 1976
1. Research and scholarship	244
Total program costs, funded	244
Changes in selected resources (undelivered orders)	-
10. Total obligations	244
Financing:	
21. Unobligated balance available, start of period (-)	-
24. Unobligated balance available, end of period	-
40. Budget authority (appropriation)	244
Relation of obligations to outlays:	
71. Obligations incurred, net	244
72. Obligated balance, start of period	282
74. Obligated balance, end of period	-282
90. Outlays	244

Justification for Transition Period

Total Requested Federal Appropriation Increase . . . . . None

The Board of Trustees of the Wilson Center requests a federal appropriation for the period July 1, 1976 to September 30, 1976 of $244,000. This constitutes an ongoing program identical with that of the last quarter of FY-1976 and thus does not represent any increase.

I. Fellowship Program $115,000

This amount will permit the Center to provide support for 5 full-year fellowships at an average cost of $23,100 apiece.

II. Scholar Support $37,000

This category provides the Center with sufficient funds to maintain the following ongoing program for one quarter: Center library, library staff (3), clerical staff working exclusively for fellows (4), seminar costs, scholar selection panels and research assistants.

III. Public Service $22,000

This amount will permit the Center to maintain for one quarter the federally-funded component of its public service category at the same level as that for FY-1976.

IV. General Administration. $70,000

This provides funds for 8 full-time employees and for such expenses as supplies, equipment, communications, duplicating services, travel, and reimbursement to the Smithsonian for one quarter. There is no increase provided in any of these items.

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

National Endowment for the Arts

SUMMARY STATEMENT FOR FISCAL YEAR 1976

The National Endowment for the Arts proposes a Fiscal Year 1976 program budget totalling $82,000,000 in Federal funds:

Definite Appropriation	- for national, state agency, regional programs (not less than 20 percent of definite appropriation to be used for state agency/regional)	$74,500,000
Indefinite Appropriation	- to match donations to the Endowment (Treasury Fund)	7,500,000
	TOTAL FEDERAL PROGRAM FUNDS....	$82,000,000
Donations to the Arts Endowment's Treasury Fund		7,500,000
	Total Program	$89,500,000

INTRODUCTION

This funding request represents a positive recognition of the Arts Endowment's need for growth in order to serve increasing numbers of Americans. At the same time, the request is in accord with the economic stringencies of this particular time in our history. The $7.25 million increase is very modest, particularly in the light of economic need and growing public demand. Four major points must be emphasized:

1) Our people are participating in cultural activities more than ever before.

2) There is a dramatic growth pattern in the cultural institutions because of public demand.

3) An increase in Federal monies is critical to encourage other sources of support, both private and governmental.

4) Increased Federal funds are a sound investment in quality and in the Nation's cultural heritage.

JUSTIFICATIONS FOR INCREASED SUPPORT

1. Our people are participating in cultural activities more than ever before, in part due to the economic climate.

More people are staying near home and utilizing their local cultural facilities as sources for inspiration, entertainment, and education. The resulting increased participants, audiences, and attendance rates are in considerable measure responsible for the dramatic increases in costs; costs that are not and cannot be covered by earned income, even though it, too, is up.

2. There is a growth pattern in the arts because of public demand.

The Arts Endowment constituency grows every year, creating more demand on all sources of funds. Congress created the Endowment to help develop a climate in which the arts could flourish. A few facts will show the progress that has been made (with very little Federal investment):

-- Twelve years ago there were only nine resident professional theatre companies. Today, there are more than 50; by 1976, at least 75 theatres will be eligible within Endowment guidelines.

-- In Fiscal 1974, there were 80 developmental theatres eligible; in 1976, it is estimated that the number will be 125.

-- In 1964, there were some 10 resident professional dance companies; today there are more than 40.

-- In 1968, there were a handful of groups in the Expansion Arts area. Today, we do not have the exact number but we do know that we received 600 applications from eligible organizations in almost every state of the Union.

-- In 1955, there were approximately 20 community arts councils involved in programming. Today, there are more than 500.

-- In Fiscal 1973, the Endowment received 6,000 applications and in Fiscal 1974, 14,200. In Fiscal 1975, it will receive a minimum of 19,500. With available funds, it is estimated that the Endowment will make only 3,600 grants (18.5%) for total dollar amounts of less than 25% of that requested.

3. An increase in Federal monies is critical to encourage other sources of support, both private and governmental.

The Endowment has a 10-year track record to prove that Federal monies have encouraged private and other public sources of support. That momentum must be maintained. The Endowment's leadership role is very important. In fact, its leverage ability to increase other monies is the only hope in the long run to prevent Federal domination in cultural financing, which is the current situation in most countries of the civilized world.

If one puts the Endowment's total projected budget, including the increase, into comparison with the total giving to cultural activities in the United States from private sources, Federal funding would be on the order of five to eight percent of private contributions. A modest percentage, but a critical one.

It should be noted that as of February 1975, with a few exceptions, support from individuals, foundations, and corporations is increasing or at least holding steady in areas where the Endowment is involved. The same is true of state and local government funding. But, there has to be a certain level of Federal commitment and funding to maintain this momentum.

4. Increased Federal funds will serve to improve quality and to call attention to the importance of the Nation's cultural heritage.

The Endowment acts as a catalyst for cultural growth and well-being:

-- The Endowment's program in renovation has served to change the Nation's attitude in regard to conservation of our cultural resources. Private and other public monies simply were not going into conservation and renovation in meaningful terms before the Endowment took the initiative.

-- Very little attention was being paid to the Expansion Arts groups until the Endowment recognized their importance. Now, their vitality to the creative process and to the community is appreciated; and their funding is increasing from other sources.

-- The record growth of state arts agencies is clear; what is not so well known are the recent moves on the part of mayors to involve municipal governments more in the arts; steps which were directly stimulated by Endowment programs and technical assistance.

-- The Federal Design Improvement Program, which is proving very successful, is rippling out into the states and cities, as well as into the Federal regions.

-- The Endowment has had a major impact on the concept of adaptive use of historically significant architecture.

-- The Artists-in-Schools program has the potential of changing the quality of education in the country.

-- The emphasis on crafts, folk arts, jazz/folk/ethnic music is renewing pride in country.

-- The Endowment's initiation of the dance touring program brought the greatness of American dance to all states; has made dance the fastest growing art form; has created a concept about residencies and sponsorships that is being adapted in other fields to the benefit of the public.

-- The success of Western Opera Theater has been instrumental in encouraging other opera companies to form their own regional groups. This concept has helped the careers of young American singers; has brought opera to communities and audiences never before reached; has brought money into a field where it did not exist before.

-- Initiation of the Museum Program has brought a greater awareness to museums of the importance of reaching all their publics; of utilizing their own collections to better advantage; of mounting more special exhibitions. The major museum survey has the potential of bringing the needs of the museums to the attention of a far broader base of funding support, both state and private.

A Word on the Bicentennial

The Endowment's broad constituency is deeply involved in our Nation's two hundredth anniversary. Our people will take great pride in the cultural stature of the Nation as exemplified by groups, large and small, and in the individual talents of our artists and craftsmen.

The Endowment, in accord with the expressed views of Congress and the National Council, considers the bicentennial not as an end in itself, not as a moment for temporary celebration, but as a gateway toward future improvement. Only programs which have an abiding value are supported. By their very nature they require a continuing commitment.

SPECIFIC INCREASES REQUESTED BY GOAL

The Fiscal 1976 budget basically provides for continuation of the agency's present programs. Increases are directed to areas of highest priority to maintain progress toward the three basic goals of the legislation and are described below:

I. Availability of the Arts: to promote broad dissemination of cultural resources of the highest quality across the land. (Increase $3 million)

This increase is the minimum necessary to:

-- Maintain the current level of dance touring activity in all 50 states; every Federal dollar generates $4 to $5 other dollars.

-- Continue an effective program of bringing the arts to millions of Americans through radio, television and film in partnership with state, local, and private monies and talent.

-- Permit the number of artists and young people involved in our nationwide Artists-in-Schools program to increase slightly and to expand the program's scope to include Folk Arts and Architecture + Environmental Arts.

-- Encourage the opportunity for wider participation in community-based Expansion Arts projects, reflecting dynamic growth and demand for arts activities in inner-cities, small towns, and rural areas.

-- Work in partnership with state arts agencies to strengthen community councils; expand assistance for regional programming; and move the "basic state agency grant" from $200,000 to $205,000 as mandated by law.

II. Cultural Resources Development: to assist our cultural institutions to provide greater public service and to improve artistic and administrative standards. (Increase $2.2 million)

The National Council on the Arts believes this Federal dollar increase is essential to encourage other monies to flow to our

Nation's cultural institutions -- museums, orchestras, theatre, dance, and opera companies and literature's "institutions," small literary magazines and presses. There are well over 7,000 of these cultural institutions, in every part of the country. The Endowment assists fewer than 10 percent of them, under this budget. All have great impact on our Nation's cultural life. These institutions need added help to reach further into their communities; to institute important "self-help" programs in the face of the inflation/recession squeeze; to strengthen their fund-raising activities; and to sustain the thousands of employees and their service to the millions of audience/participants whose lives they enrich. Even relatively small grants have an immense importance in this critical area.

III. Advancement of our Cultural Legacy: to support creativity among our most gifted artists, encourage the preservation of our cultural heritage, and advance the quality of life of our Nation. (Increase $1.7 million)

This increase is required to:

-- Enhance creative development by maintaining fellowships, workshops, and special training programs.

-- Preserve and enhance American folk arts and crafts, and broaden opportunities in jazz/folk/ethnic music.

-- Fund critically-needed projects to save our rich national heritage in film, dance, and architecture.

-- Assist key service organizations to broaden essential self-help technical asssistance activities, and to respond to special requirements in each program area.

Program Development and Evaluation (Increase $217,500)

This increase is essential for important evaluation efforts and to enable the Endowment to step up its catalyst/leadership responsibilities.

In presenting its budget, the Endowment wishes to stress that the total program -- to encompass the full variety of the arts -- has been reviewed with immense care and attention to detail by the program directors of the Endowment, working in their own fields and in cooperation with each other; by panels of experts working in each of the areas involved and often in combination with other arts fields; and by the members of the National Council on the Arts.

Taking into account the accelerating demand on Endowment programs, the severe economic pressures which threaten to erode the Nation's cultural strengths, the Endowment's track record in stimulating other monies, and the exciting potentials for the role of the arts in the upcoming bicentennial, the National Council on the Arts believes the requested increase in the Fiscal 1976 budget is bare-bones, critically-needed, and a sound investment in both the Nation's economy and the Nation's spirit.

NATIONAL ENDOWMENT FOR THE ARTS

SUMMARY OF FUNDS AVAILABLE

	1974 Actual		1975 Estimate	1976 Request	Increase
Appropriation, Definite					
Direct Program	$46,025,000		$67,250,000	$74,500,000	$7,250,000
State Agency (and Regional) Program	8,250,000		4/	4/	
Appropriation, Indefinite					
Matching Funds	6,500,000		7,500,000	7,500,000	-0-
Total Appropriation		$60,775,000	74,750,000	82,000,000	7,250,000
Gifts and Donations		7,280,550	7,500,000	7,500,000	-0-
Transferred From Others		397,670 2/	100,000	-0-	
Recovery of Prior Year Obligations		144,579	-0-	-0-	
Unobligated Balance Prior Year		3,220,185 3/	2,915,823 5/	-0- 5/	
Total Available for Obligation		71,817,984	85,265,823	89,500,000	
Obligations	67,616,004		85,265,823	89,500,000	
Transfers to Others	68,207 1/				
Total		67,684,211			
Unobligated Balance		$ 4,133,773	$ -0- 5/	$ -0- 5/	

1/ Includes transfers to Humanities Endowment ($33,207) and Smithsonian Institution ($35,000).
2/ Includes transfers from American Revolution Bicentennial Commission ($200,000), Smithsonian Institution ($125,000), Humanities Endowment (20,000), GSA (20,000), Army (15,000), HEW - Office of Education (11,670), NSF ($2,000), National Park Service (2,000), and Dept. of State (2,000).
3/ Includes $1,217,949.25 represented by equity received in ANTA Theatre and other assets.
4/ At least 20% of definite appropriation for state arts agencies and regional groups.
5/ Does not include $1,217,949.25 equity in assets which is not available for obligation.

NATIONAL ENDOWMENT FOR THE ARTS

ANALYSIS BY OBJECTIVE

	FY 74 Actual	FY 75 Estimate	FY 76 Request	Increase (Decrease)
1. Availability of the Arts	$27,311,844.98	$35,556,619	$38,582,500	$3,025,881
2. Cultural Resources Development	21,888,579.55	13,412,000	15,630,000	2,218,000
3. Advancement of our Cultural Legacy	16,583,669.31	16,175,500	17,827,500	1,652,000
4. Program Development and Evaluation	1,807,685.77	2,242,500	2,460,000	217,500
5. Miscellaneous	24,223.95	-	-	-
6. Gifts, Donations and Matching Funds	1/	17,879,204 2/	15,000,000	(2,879,204)
TOTALS	$67,616,003.56	$85,265,823 2/	$89,500,000	$4,234,177

1/ Gifts, donations, and Federal matching funds have been distributed by objective.

2/ Includes funds carried over from Fiscal 1974. Does not include $1,217,949.25 equity in assets which is not available for obligation.

FUNDING SUMMARY INDEX

		Actual 74	Estimate 75	Request 76	Increase (Decrease)
I.	AVAILABILITY OF THE ARTS	$27,311,844.98	$35,556,619	$38,582,500	$3,025,881
	A. New Directions	$ 2,731,350.98	$ 4,965,479	$ 4,875,000	($ 90,479)
	B. Touring (Chiefly Dance)	2,457,792	3,100,000	3,600,000	500,000
	C. Media	2,376,375	2,900,000	3,200,000	300,000
	D. Artists in Residence	3,633,785	4,105,000	4,742,500	637,500
	E. In Expansion Arts	3,171,905	3,797,500	4,110,000	312,500
	F. Accessibility and Awareness	2,382,341	2,340,000	2,925,000	585,000
	G. Federal-State Partnership	10,558,296	14,348,640	15,130,000	781,360
II.	CULTURAL RESOURCES DEVELOPMENT	$21,888,579.55	$13,412,000	$15,630,000	$2,218,000
	A. In Museums	$ 5,449,885	$ 3,615,000	$ 4,350,000	$ 735,000
	B. In Music	12,587,123.55	5,197,000	6,145,000	948,000
	C. In Theatre	3,097,850	3,550,000	3,960,000	410,000
	D. In Dance	453,721	500,000	500,000	-0-
	E. In Literature	300,000	550,000	675,000	125,000
III.	ADVANCEMENT OF OUR CULTURAL LEGACY	$16,583,669.31	$16,175,500	$17,827,500	$1,652,000
	A. Creative Development	$ 5,662,368.62	$ 6,048,500	$ 6,397,500	$ 349,000
	B. Enhancement of America's Indigenous Arts	1,669,298.56	2,582,000	3,085,000	503,000
	C. Preservation	2,814,523.13	2,175,000	1,995,000	(180,000)
	D. The Environment	3,278,494.61	1,000,000	1,400,000	400,000
	E. General Programming, Research, Services	3,158,984.39	4,370,000	4,950,000	580,000
	Program Development and Evaluation	$ 1,807,685.77	$ 2,242,500	$ 2,460,000	$ 217,500
	Miscellaneous	$ 24,223.95	---	---	---
	[Subtotal, Definite Appropriations]		[67,386,619][2/]	[74,500,000]	[7,113,381]
	Gifts, Donations, and Matching Federal Funds (Treasury Fund)	1/	$17,879,204[3/]	$15,000,000	($2,879,204)
	GRAND TOTAL	$67,616,003.56	$85,265,823	$89,500,000	$4,234,177

1/ Gifts, donations, and matching funds have been distributed by objective.

2/ Includes $67,250,000 appropriated plus $36,619 carried over from Fiscal 1974 and $100,000 in anticipated transfer funds.

3/ Includes funds carried over from Fiscal 1974.

I. Availability of the Arts

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$27,311,845	$35,556,619	$38,582,500	$3,025,881

Underlining the Endowment's commitment to the goal of providing access and opportunity to every citizen to participate in the arts, the largest dollar increase appears here.

NEW DIRECTIONS

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase (Decrease)
$2,731,351	$4,965,479	$4,875,000	($90,479)

Special Projects. A significant new thrust for the Endowment was initiated in Fiscal 1975 and will be continued in Fiscal 1976, though at a reduced level because of heavy pressures from other areas. The purpose of the granting program is to meet the National Council on the Arts oft-stated objective to give much greater encouragement to valid new directions in the arts, in the funding of the arts, and in the integration of the arts into the community. Programs for residencies and arts centers were created in Fiscal 1975 and will be continued. Special Projects also includes CITY SPIRIT, which is a program directed to bringing diverse groups and interests together in making the arts an integral part of their communities. More than 1,300 inquiries already have been received from all states for a grant program that will cover Fiscal 1975 and Fiscal 1976. Grants will range up to $25,000 each; all must be matched.

In addition, certain interdisciplinary projects are assisted. Hospital Audiences, which brings talent into the hospitals and takes patients into the theatres is one example. Opportunity Resources for the Arts, a national employment service for nonprofit groups and artistic/administrative personnel, is another.

Special Summer Programs. There are many summer programs, including festival-type activities, which reach out to audiences. Projects of this type in music (like the festivals in Wyoming and North Carolina) will continue to be assisted; a modest increase is needed in theatre; and, most importantly, in the Expansion Arts summer activities for neighborhoods and communities in various parts of the country.

TOURING

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$2,457,792	$3,100,000	$3,600,000	$500,000

The projected increase is basically for Dance; theatre touring will probably be eliminated and other touring programs curtailed.

Dance Touring. This program began in 1968 in two states. It now assists sponsors in 52 states and jurisdictions who, working with their state arts agencies, are bringing a total of 74 smaller professional dance companies into their communities for 360 weeks of dance residencies. The three larger companies are assisted also to tour nationally. The overall program, in which the Endowment provides only one-third of the dance company's fee, and does not underwrite local costs, generates between $4 and $5 locally for every federal dollar invested. As demand mounts and costs rise, the $500,000 increase represents the critical margin between holding onto this extraordinarily successful program and seeing it begin to slide backward during the bicentennial year. Touring is essential to the life of most dance companies, and the art form enjoys the fastest growing audiences.

Expansion Arts Touring. In Fiscal 1974, the Endowment -- with $150,000 total -- assisted four pilot "Tour-Events," which brought together into four different kinds of settings -- in the Pacific Northwest, Appalachia, New England, the Southwest -- a wide variety of community-based arts groups from 25 states. These Tour-Events proved highly successful. Their continuance is planned at an augmented level this year which will hold in 1976. A 50-minute film, "Coat of Many Colors," captured the scope and flavor of these activities.

MEDIA

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$2,376,375	$2,900,000	$3,200,000	$300,000

A funding level of $3,200,000 is requested for the media, a pervasive force in American life, with the potential of reaching almost everyone in this country. Modest increases here can return special benefits, in terms of reaching people with programming that is exciting, beautiful, relevant. The National Council continues to urge that the Endowment's media programs be increased. The Council places emphasis on the importance of having media advisors on various advisory panels to expand the impact of all programming via radio, film, and television. Treasury Fund monies will be used to augment these efforts.

Programming in the Arts. A major Endowment focus in Fiscal 1975 was in programming in the arts for the media and included activities initiated by the Council's Bicentennial Committee. There are 18 films (maximum grant: $25,000) sponsored by state or regional arts agencies depicting the special characteristics of the arts in their locales and regions. There will also be a major film for television that will bring the warmth, meaning, and beauty of American song into millions of homes during the bicentennial. Significant corporate funding is involved.

A modest increase in monies will permit additional state/regional films; a major film on dance; and the continued funding of important Endowment efforts:

-- Expansion Arts films.

-- American Authors Films: to transmit our Nation's literary heritage through films of the lives and works of contemporary American authors.

-- Short Film Showcasing: to prepare and exhibit the best short films made by American filmmakers.

-- American Film Series for Television: through partnership with private funding sources, an FY 1974 grant went to KVIE-TV in Sacramento for a 9-program series, "The Immigrants," which will present the films of American directors who immigrated from other countries. 1975 and 1976 grants will assist future major series.

Endowment/Corporation for Public Broadcasting. Cooperative efforts between the Endowment and CPB are extremely valuable to both agencies. Interesting to note is that two recent Nielson surveys indicate public television's audience for "arts" programs far outranks the audience for its public affairs programming. Grants in this category are selected and funded jointly by the Endowment and the Corporation for a variety of purposes, including conferences and experimental work; there is definite interest in undertaking major joint programming efforts.

Regional Development. Regional film centers, which tend to be housed in museums and on university campuses, are relatively new institutions that provide an important resource for historians and students of film and at the same time make it possible for people out of the major metropolitan centers to see examples of outstanding filmmaking, both past and contemporary. Fiscal 1975 matching grants, ranging from $1,650 to $25,000, are assisting 22 of these centers for a variety of projects: filmmaking workshops, traveling film packages, newsletters and other publications, film competitions, and regional coordination. The Public Media Advisory Panel has urged that funds be available to enable these centers to provide actual working facilities for the filmmakers in their regions. A modest increase is projected to accommodate the increased numbers of regional centers that are eligible for funding.

ARTISTS IN RESIDENCE

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$3,633,785	$4,105,000	$4,742,500	$637,500

Last month, the College Art Association had its annual conference here in Washington. The Washington Post noted that 100,000 applications were submitted for 500 jobs. Artists In Residence thus takes on added significance and urgency. Practicing artists have the proven capacity and will to involve themselves in their schools and their communities. The Endowment's programs in this area are among its most highly successful. Pressures to expand these programs are especially heavy. The multiplier benefit of the $637,500 increase here is virtually incalculable.

Artists-In-Schools. Particular emphasis will continue to be placed here. During the 1974-75 school year, the Artists-in-Schools Program is operating in an estimated 5,000 schools in all 50 states and the five special jurisdictions. Over 2,500 artists -- from all disciplines -- are involved. Matching grants go to state arts agencies who work with local artists, schools, and the Endowment in administering this program. Because of accelerating national interest in the Folk Arts and in Architecture + Environmental Arts, a portion of the increase requested will be directed specifically toward these areas -- areas which are expected to have a major impact in increasing our young people's sensitivity, skills, and awareness of their heritage and their environment. The evidence that this federal program stimulates other monies -- from state governments, local school boards, local foundations -- is clearcut.

Other Residency Programs. The residency concept has been transferred to placing professional artists in settings outside the schools as well. Matching grants in this area, ranging from $5,000 to $25,000, have been made to a variety of groups in alternative education such as the Museo del Barrio in New York and Workshops for Careers in the Arts in Washington. The residency concept has also been used for some years in the Writers in Developing Colleges program, which began by assisting developing colleges, primarily black in enrollment, to bring professional writers onto their campuses. Pilot programs in Wyoming and Alaska, expanding the concept to community colleges through their state arts agencies, have been equally successful. The Endowment will also continue its ongoing program enabling art schools, colleges, and community centers to hire artists, photographers, critics, and craftsmen, generally for short-term stays, to stimulate and instruct young artists and students. Grants are generally for $1,500, are matched, and to date have reached into 40 states.

IN EXPANSION ARTS

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$3,171,905	$3,797,500	$4,110,000	$312,500

The National Council, at its February 1975 meeting, reiterated its conviction that Expansion Arts programs encouraging the creative activity of people from all walks of life and all ethnic backgrounds are central to the Endowment's purposes. In addition to funds budgeted elsewhere, the requested increase here is for critically-needed funding for arts exposure programs and community cultural centers.

Further, in a continuing move to strengthen this whole program, the Council requested every effort be made in cooperation with state arts agencies to encourage states and municipalities to support these types of activities. The pressure on the program at the national level is immense, with applications far out-stripping the Endowment's capacity to respond. In addition, over the past two years the toll of inflation, particularly in rents and utilities, has been felt heavily in low income areas across the Nation where an important portion of the Expansion Arts constituency lies.

Matching grants in Expansion Arts this year range from $600 to $40,000; reach 417 groups in 167 communities; assist in bringing professional artists into close working relationships with their communities; and involve Americans from Alaska to Texas, and from Vermont to Hawaii.

Highlighting the great diversity of heritages, and of contributions to the American culture, the broadening scope and growing visibility of Expansion Arts projects also encourages state and local governments, foundations, corporations, and individual patrons to share their resources with these groups.

ACCESSIBILITY AND AWARENESS

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$2,382,341	$2,340,000	$2,925,000	$585,000

The $585,000 increase is needed to broaden the outreach programs of museums and to provide art works for public places. These programs make the arts accessible to wide numbers of people, often for the first time, and encourage their awareness of the importance and value of creative expression. The programs are responsive to needs increasingly made manifest to the Endowment.

Works of Art in Public Places. In the visual arts, the Endowment aids cities and communities (in 33 states to date) with the placement of art in public spaces, including sculpture, crafts, murals. The benefits and involvements are multiple: artists are creating new works in close relationships with local citizens, officials, businesses and, often, schools. A very large outdoor sculpture in Wichita, Kansas, for example, was constructed by the local steel factory and the children of that city saved their pennies to help with the costs. Grants range from $5,000 to $50,000, and are matched at least on a one for one basis.

The Endowment also provides the advisory assistance necessary to the General Services Administration in implementing its art for public buildings program. The recently installed Alexander Calder sculpture in Chicago is the first completed major GSA project.

Visual Arts in the Performing Arts. This program will continue in 1976 to provide matching grants, ranging from $1,000 to $8,750. It enables performing organizations to commission outstanding visual artists to create posters which are displayed on buses, in subways, concert halls, and schools and are also available for purchase at modest prices. The program provides also much needed assistance for performing groups to employ artists as designers for sets, costumes, lighting. Bicentennial activity in both areas will increase demand on this program which, significantly, involves added employment of printers, carpenters, lighting technicians, and many other artisans as well as reaching out to millions of Americans.

Photography. The Endowment's Visual Arts Program is encouraging the exhibition of photography often in settings other than the

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museum, such as community centers, art schools, and national organizations unaffiliated with the arts. The first two years of the program saw matching grants ranging from $1,500 to $10,000 go to 45 groups from 16 states representing every region of the country. Many of the exhibitions subsequently circulate throughout the Nation. Therefore, it is estimated that in the course of a year, 500,000 people will view exhibitions aided by this program, not taking into account the broad readership for accompanying catalogues. Requests in Fiscal 1975 are double those received in Fiscal 1974. Further, photography publications, essential to a balanced photography program, are assisted with matching grants in a new Endowment effort, which began in Fiscal 1975.

Wider Availability of Museums. The Museum Program must be able to respond to museums' efforts to reach out to a broader community through a wide range of activities. Bilingual programs are developing as well as new methods for reaching the handicapped. Media is being used and collaborative efforts between more formal institutions and community galleries are increasing. Innovative educational programs are being developed. This year, the applications reflected growth in the scope of ideas, including programs to reach into factories, to sparsely populated areas and smaller towns. Museums, too, are developing "self-help" programs to meet their needs for a broader base of support. Since there are over 1,800 museums in the country, these projects are of particular interest to the Endowment.

Access to Theatre. The Council is concerned with the need for monies to meet an increasing demand from areas of the country totally without access to professional theatre. A pilot program which began this year for state and regional arts agencies has been extremely effective in beginning to meet this need. Matching grants ranging from $5,000 to $30,000 have assisted regional organizations such as the Mid-America Arts Alliance (based in Kansas City, Missouri) and the Western States Arts Foundation (based in Denver), as well as state arts agencies like the one in Tennessee, to bring live professional theatre to scores of communities. (Note that the projected Theatre Touring program mentioned in last year's presentation has been eliminated and whatever activity is possible with the modest funds has been absorbed into this category.)

Cultural Facilities Research. The Endowment receives over 750 requests a year for assistance involving cultural facilities. They range from requests for capital funds for construction to monies for feasibility studies and preliminary designs. While the Endowment's funding levels will not permit it to become involved in construction, it is essential that assistance be given to research and design studies which will (a) help communities which wish to have cultural facilities for their citizens, and (b) stimulate local public and private funding for actual construction. Matching grants up to $20,000 will assist communities which have lost their facilities due to unforeseen disaster, which have severely limited or inadequate facilities, which are seeking economic and social revitalization and stability through cultural activities.

A national survey shows that a substantial 50 percent of the public 16 years of age and older -- or 72.7 million Americans -- feels there are not enough "places for cultural events...in the community where they live." At the same time, 80 percent feel that

such facilities are important "to the business and economy of the community." In view of public sentiment and current needs in industries potentially involved in construction/adaptation of cultural facilities, the benefit of funding for research and design studies is clear.

In Architecture + Environmental Arts. The physical fabric of a country can be no better than the level of awareness of its citizens. Endowment grants to projects upgrading public awareness and encouraging state arts agency participation in statewide design programming will continue in 1976.

FEDERAL-STATE PARTNERSHIP PROGRAM

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$10,558,296	$14,348,640	$15,130,000	$781,360

Grants are made to state (and regional) arts agencies for a variety of activities, including the basic state arts agency grants.* These grants are matching, as is additional funding for state agencies' programming with community arts councils, development grants for professional staff capability, and grants for regional agencies or groupings of state agencies, for regional programming.

During Fiscal 1975, the basic state agency grant is $200,000; in Fiscal 1976, it will be $205,000. State legislative appropriations generally appear to be continuing the upward pattern; an increase in Endowment funds, however modest, is an essential stimulus to the states. In Fiscal 1975, 25 state agencies more than matched the basic grant with state-appropriated monies; other agencies used a combination of state and other monies for matching.

Increases are required also to meet the growing demand for regional programming serving multi-state regions. Three formal regional groups are engaged in programming for ten western states, four mid-America states, and five upper midwestern states. A new regional federation of ten southern state agencies has been formed.

The state arts agencies need additional monies to assist community arts agencies within their states. These community agencies (or community councils, as they are often called) are growing rapidly in numbers, impact, programming, and budgets. A 1974 "Guide to Community Arts Agencies" contained information on more than 500 such organizations. Budgets ranged from less than $500 (22 of them) to over $100,000 (46 of them); gross budgets of the

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* Under the Endowment's authorizing legislation, at least 20 percent of its overall definite appropriation must be directed to state (and, to a lesser extent, regional) agency efforts; further, 75 percent of this 20 percent must go in "bloc" amounts to the 55 state (and jurisdictional) arts agencies, with a minimum of $200,000 available to each state agency.

327 that provided financial information represent $24.3 million, 4 percent from the Federal Government, 25 percent from state and local government, and 71 percent from private sources.

It is a policy of the National Council that community councils should be aided through state arts agencies. As community councils continue to increase their levels of activity, services, and programming, demands for participation from state agencies will grow. Fiscal 1975 matching grants thus far range from $3,000 to over $45,000 for a three-state project. The three-way partnership between the community, state and (to a much lesser extent) the Federal Government can have important ramifications in increasing the arts availability to the estimated 172 million Americans served by these agencies.

The importance of a continuing policy of growth in the above-mentioned areas cannot be overemphasized. Federal funds have had a demonstrable impact on growth in state and local funding. Experts in state and local programming have stressed that these monies -- and this policy -- must be maintained to prevent retrenchment at the state and local level.

II. Cultural Resources Development

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$21,888,580*	$13,412,000*	$15,630,000*	$2,218,000*

*[The Endowment expects that in 1975 and 1976, a significant portion of Treasury Fund monies (gifts and matching) will continue to be used for Cultural Resources Development. The Treasury monies are reflected in the FY 74 figure.]

America's cultural institutions are second in quality to none in the world. The total operating budgets of 1,800 museums and 250 nonprofit professional orchestras, dance, theatre, and opera companies will exceed $1 billion by FY 76. These figures do not include the thousands of nonprofessional performance groups, small museums and historical houses that are an important part of our cultural fabric. All of these institutions have a far reaching impact on the Nation's cultural and economic life. Their development in recent years has been nothing short of phenomenal and is due in considerable measure to the stimulus of Federal funds, which have attracted increased assistance from all sectors of society.

It would be impossible to overstate the need for this modest increase in Federal money. Current economic problems could begin to erode the tremendous gains that have been made. The Nation's bicentennial year is surely an appropriate time to place a major emphasis on measures to maintain the health and vitality of our cultural institutions. In addition to the funds requested, which are minimal in relation to needs and costs, the Endowment is itself making every effort to encourage funding from other sources, to provide technical assistance for "self-help" programs, and to disseminate information of use to the entire field.

IN MUSEUMS

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$5,449,885	$3,615,000	$4,350,000	$735,000

The increase requested here will go toward assisting special exhibitions, utilization of permanent collections, and cataloguing, which are essential museum functions. Other Endowment assistance for museums is described in Availability (Goal I) and in Cultural Legacy (Goal III) which includes preservation and training activities.

American museums' total attendance is now over 308 million and is still growing. Demand for special exhibitions to meet public needs is very high. Grants in this category are all matching and range from $1,600 to $160,000. Exhibition assistance was given this year to 83 museums in 57 communities.

Utilization of permanent collections funds are enabling museums to display their permanent collections much more effectively for their publics. Matching grants, some as small as $1,840 to a Maine museum, are helping bring collections out of basements and musty cases into direct relationship with the viewing public. Audio-visual aids, clear labeling, imaginative presentation methods are finally bringing millions of dollars worth of collections of all kinds -- including folk and craft arts -- to museum-goers for their continuing learning and pleasure.

Cataloguing is an area of immense pressure and far-reaching benefit. So many of America's museum treasures have gone uncatalogued and thus basically unknown. Since all catalogues aided by Endowment grants must also be made available for distribution to U.S.I.S. centers abroad, the total beneficiaries of these projects cannot be calculated. Matching grants this year range from $1,500 to $20,000. A special pilot project in computerized cataloguing in New Mexico was also funded.

IN MUSIC

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$12,587,124	$5,197,000	$6,145,000	$948,000

The increase requested will be directed to the Nation's orchestras and opera companies. A proposed chamber music program will be delayed; choral music will continue at its current funding level.

Orchestras. There are over 1,100 orchestras in the country, with annual budgets as high as $6.7 million. Roughly 120 of them are eligible for matching project grants from the Endowment under present guidelines. They employ over 12,000 professional musicians who in turn bring music to millions, through direct performance situations (in schools and parks as well as concert halls) and through the media. There has been almost no increase in the amount of Endowment funding going to these groups over the past two years, while costs have been rising along with demands for their services. The "major" orchestras (the 27 with budgets over $1 million) have been eligible for a maximum grant of $140,000 for the past two years.

It is necessary to raise the maximum to $150,000 in 1976 to provide important impetus for increased funding from state and local sources. Especially at this time, the increase is urged by orchestra leadership across the country to meet rapidly rising costs and provide a crucial element of challenge. Modest increments will also go to some of the "metropolitan" orchestras, those with budgets between $100,000 and $1 million. These funds will also be directed toward challenging added private support.

Opera. While there are more than 450 opera groups in the country, only approximately 40 receive Endowment matching grants. Federal funds are used to develop new audiences, provide apprentice opportunities for young musicians, present performances in schools, parks, and other public areas. As with orchestras, the maximum grant (except for the Metropolitan) has been $140,000 for the past two years and most grants are for much less. That maximum will go to $150,000 in 1976; grants to some other companies will be augmented; a few new companies will be aided. All funds and Endowment effort will go toward continuing to increase essential outside funding from local sources.

IN THEATRE

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$3,097,850	$3,550,000	$3,960,000	$410,000

The increase here will aid America's nonprofit professional theatre companies. Theatre for Youth will continue to be assisted.

Professional Theatre Companies. Of the more than 3,000 theatres in the country, approximately 45 professional groups (highest budget: about $4 million) are receiving Endowment assistance this year, with the number eligible continuing to increase. Until the early 60's there were only a handful of companies in the country. They now exist in Dallas, Seattle, Buffalo, Cleveland, Milwaukee, Louisville, and 28 other cities. Federal assistance is directed toward artistic and administrative improvement, including new play production, fund-raising efforts, community programming. This year, matching grants range from $5,000 to the $140,000 maximum which has been in effect for two years and which will be lifted to $150,000 in 1976. The growth of these nonprofit professional theatres around the country is a very important development; they are increasingly the source and home of some of the best playwrights, directors, and performers in American theatre today.

As of December 31, 1974, the Arts Endowment terminated its contract with the American National Theatre and Academy for the theatre building in New York City. This was done after discussion with cultural leaders and members of Congress and after careful review by the National Council on the Arts. It is expected that the liabilities under the contract will be closed out during 1976.

IN DANCE

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$453,721	$500,000	$500,000	-0-

These funds are for resident professional dance companies and for management and administration. Though the need in both areas is severe, the Dance Advisory Panel and the National Council have put the priority for increased funding on Touring (see Availability, Goal I). Therefore, these two funding categories will hold at their present level. Matching grants ranging from $3,500 to $40,000 assist in strengthening professional management and helping resident companies to upgrade their artistic standards, engage guest choreographers/directors, and broaden their services to their communities.

IN LITERATURE

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$300,000	$550,000	$675,000	$125,000

In the literary world, the "institutional structure" is provided by the variety of publications which, much the same as theatres and orchestras, make it possible for artists' work to reach people. There are more than 500 publications (small literary magazines and independent presses) and all are feeling the impact of sharply rising production and paper costs and increases in postal rates. Without increased funding and cooperative publication/distribution efforts, many may be forced to cease publication. Increased monies will be used to enable publications to increase subscriptions, explore cooperative efforts, pay the authors whose works they publish. Grants to literary magazines go through the Coordinating Council of Literary Magazines. Matching grants ranging from $500 to $8,000 are made directly to the independent presses. Endowment technical assistance is also being given to aid these publications which provide an exceptional source for quality in literature today, and provide unique outlets for writers at the start of their careers. Endowment support in most cases involves the very survival of these institutions. Without them this Nation's ability to furnish a climate for literary development would irreparably suffer.

III. Advancement of our Cultural Legacy

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$16,583,669	$16,175,500	$17,827,500	$1,652,000

America's extraordinary cultural legacy springs from the unprecedented diversity of our origins. It finds its voice in unique artistic expression -- this is the country in which the film arts were born, in which the blues and jazz came into being, in which dance, architecture, the crafts and folk arts reached new levels of achievement. The preservation and encouragement of that voice is one of the most fundamental tasks of the Endowment.

CREATIVE DEVELOPMENT

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$5,662,369	$6,048,500	$6,397,500	$349,000

The $349,000 increase for Creative Development will be distributed among fellowships, developmental work, and professional training.

Fellowships. The Endowment now has fellowships for choreographers, painters, sculptors, craftsmen, photographers, creative writers (including playwrights), librettists, composers, jazz/folk musicians, radio/CATV/television professionals, and filmmakers. Some fellowship programs are administered every other year to meet staffing limitations, since as many as 2,400 applications may be received for 60 fellowships. Fiscal 1975 amounts range from $500 to $10,000. There are basically two types of fellowships: one aimed at a specific end result, e.g. creation and performance of a new dance work; the other aimed at career development, e.g. providing time and materials for a creative artist. Fiscal 1976 will offer increased funds for creative writers (to raise their grants from $5,000 to $6,000 each) and for filmmakers (to raise the number of grants).

New/Developmental Work. Also essential to creative development in most fields of the arts is the opportunity for new/developmental work. The Endowment's assistance to contemporary music groups will continue. (Matching grants range from $5,000 to $40,000 to about 14 groups.) Modest increases will go toward crafts workshops and developmental theatre groups; in Fiscal 1975, crafts workshops in 14 states are receiving grants ranging from $3,200 to $10,000; and developmental theatres in 15 states are receiving matching grants from $1,500 to $40,000.

Professional Training. Diverse programs to approach the pressing need for training professionals in the arts have been developed in music, architecture + environmental arts, arts administration, museums, dance and visual arts criticism, media, and theatre. Modest increases here will help meet the greatly increased pressures in the media areas (film, television, radio, video) and in the environmental arts, both of immense importance on the national scene.

INDIGENOUS AMERICAN ARTS

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$1,669,299	$2,582,000	$3,085,000	$503,000

Some art forms are thought of as being truly American. Jazz, modern dance, film started here; and our craft and folk arts have a distinctively American flavor. They are a source of national and international pride, and, particularly as we celebrate our 200th birthday, will have increasing visibility.

Crafts. The Endowment now has a professional Crafts Coordinator located in the Visual Arts Program. In addition to special projects and a new master craftsmen apprenticeship program, there are also fellowships for individual craftsmen. Spread throughout other Endowment programs are funds for crafts: in expansion arts activities, for museum purchases and special exhibitions (both growing in number), residency programs, workshops, and the like. The Endowment also works with state arts agencies and with other Federal agencies to stimulate interest and funding for the crafts.

Folk Arts. This year, after many months of careful planning, meetings with folk experts, and securing an outstanding professional Director, the Endowment has focused on existing folk arts assistance throughout Endowment programs and launched a separate folk arts program (in Special Projects). The Council is determined that the Endowment make a major coordinated effort in this area, building upon work already being done in expansion arts and in music, insisting on a new folk arts component in the Artists-in-Schools program, pushing folk arts into other relevant programs such as museums, and literally applauding when the first round of grants in the folk arts program itself was recommended at the September 1974 Council meeting. Here is another area in which cooperation with the state arts agencies and other Federal and private agencies is essential and fruitful. Increased Endowment funding here and in other areas which affect the folk arts are a significant part and key priority of the Fiscal 1976 budget.

Jazz/Folk/Ethnic Music. This is one of the Endowment's most complex, important, and successful programs and was expanded last year to include folk and ethnic music. Grants go chiefly to individuals, performing groups, and sponsors. In addition, archival efforts are being pursued in cooperation with the folk arts program. Special adjustments are being developed for the Fiscal 1976 guidelines to accommodate more effectively the diverse needs of folk and ethnic musics.

Film. In addition to the Endowment's other efforts including aid for regional film centers (see Availability, Goal I), media studies, and film preservation, the American Film Institute will continue to be assisted in its efforts to preserve and enhance the art of film in this country. The National Council is particularly encouraged that the Institute's announced fund-raising efforts indicate considerable increase in outside funding. Endowment funds aid the Institute's advanced film training, research, information and service activities. Increased funding for an improved AFI program is planned.

PRESERVATION

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase (Decrease)
$2,814,523	$2,175,000	$1,995,000	($180,000)

Increases are essential in film, dance, and architectural preservation; a decline in funds for museum renovation accounts for the overall decrease in this category.

Museum Conservation and Renovation. Important work in training conservators and providing emergency conservation funds will continue in 1976. With regard to funding needs in renovation for preservation purposes, most of the major institutional projects in climate control systems to preserve collections have been aided (often with $5-$6 outside dollars stimulated by Endowment's $1 investment). Need for better security and storage facilities will clearly continue, though requiring relatively smaller amounts than the major renovation projects conducted earlier. It should be noted, also, that Treasury Fund monies are used significantly in this area.

Film Preservation. The current efforts in film preservation have failed even to hold the line against rapid deterioration; an increase is critically needed to preserve this important part of every American's heritage. The Endowment will provide increased funds through the American Film Institute to film preservation programs of the Library of Congress, the Museum of Modern Art, George Eastman House, and the AFI. Other funding sources will increase to match these Federal increases. Note that a study conducted several years ago put the total need at $80 million.

Dance Preservation. The preservation and recording of our dance heritage is a pressing need. Dance is an ephemeral art; the life of a work seldom survives the death of its creator since it is literally built from the mind of the choreographer onto the bodies of the dancers. There is almost no way to write it down as is the case with other art forms. Methods of "scoring" dance works are absolutely critical. The projected increase is specifically aimed at projects to record and save dance works. Media projects aimed at broad public audiences are included in Programming in the Arts (under Availability, Goal I). The Dance and Public Media Programs work closely in both areas.

Architecture Preservation. Over one-third of the structures listed on the National Register of Historic Sites since 1930 have been destroyed. While there is a strong private tradition in this country for architecture preservation, the Federal Government should encourage the movement to revitalize the country's resources. A major new thrust is required, with emphasis on adaptive uses of old structures to meet today's needs. The Endowment is working closely with a wide spectrum of public and private groups, including HUD, Interior, and the National Trust for Historic Preservation. Minimal funds in the past have been used for research and publications; the National Theme programs such as "City Edges" and "City Options" have aided many projects involving architectural heritage. In 1976,

modest funds will be used for planning specific preservation projects. The aim will be to encourage major private, state and local funding for actual implementation.

THE ENVIRONMENT

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$3,278,495	$1,000,000	$1,400,000	$400,000

Attention to the aesthetics of our environment -- beyond clean air and water concerns -- is an increasing focus of individuals, neighborhoods, towns and cities nationwide.

"Cityscale." The National Theme approach to research -- two thus far -- have built-in momentum and effectiveness and have had a major impact on communities of all sizes all over the country. The program began in Fiscal 1973 and was called "City Edges." It elicited 300 applications, provided 37 grants. The next theme, "City Options," covered a two-year period and resulted in 700 applications; 149 grants were made to towns and cities with populations ranging from 700 persons to the millions living in metropolitan areas. Forty-six states and Puerto Rico were affected. All grants were for planning; implementation is paid for with local monies.

This program has effects well beyond the actual projects stimulated by modest Federal investment. For example, as a direct result of the excitement and involvement generated by "City Options," the U. S. Conference of Mayors recently passed a resolution calling for increased participation by cities in arts and design activities.

The 1976 "Cityscale" program will again cover two years. It will offer planning grants ($50,000 maximum) for projects relating to the critical and often overlooked smaller elements in the designed environment -- benches, street lights, signs, landscaping, paving -- which are basic ingredients for a humane and well-designed community.

Federal Design. The program, a Presidentially-initiated effort, is well underway and will continue in Fiscal 1976. The four components of the program are aimed at improving Federal design -- from buildings to graphics -- across the country. Importantly, state and municipal governments are beginning to institute their own programs, while the Endowment continues basically to take the catalyst role with the Federal Design Assembly, the task force on Civil Service design hiring and training procedures, the task force on Architecture Guidelines, and the Federal graphics improvement program.

GENERAL PROGRAMMING, RESEARCH, SERVICES

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$3,158,984	$4,370,000	$4,950,000	$580,000

This increase is absolutely critical to insure the flexibility, current data on the field, vital self-help information, and technical assistance which are essential in these extremely difficult times. All these efforts are critical to the Endowment in the development of its programs and to its constituents in the management of their institutions.

General Programming. The National Council on the Arts participates actively in developing the underlying policies for guidelines in all funding areas. At the same time, the Council believes it would be entirely wrong for the Endowment to be locked into rigid patterns and unable to respond to important requests. A modest increase in these funds will continue to implement this Council philosophy, though the amount is still far short of the 10 percent of total funds the Council has urged consistently.

Research. Up until this year, the Endowment has basically used Program Development and Evaluation monies for research efforts, such as the national museum study, an important tool in developing the Endowment's museum program. Increasingly, however, the Endowment is being asked to assist research initiated outside the Endowment aimed at gathering information of direct and immediate benefit to the field. Both kinds of efforts will continue to be assisted; the Council has stressed the urgency and importance of stepped-up research activities. Congress has made similar recommendations.

Services to the Field. The Endowment feels it essential to strengthen and encourage private service groups in the improvement of services to all cultural fields. A variety of groups and individuals, ranging from national service organizations to artists' workshops, have a role to play that is increasingly urgent given current growth in the fields combined with the economic situation. Included are groups such as the American Symphony Orchestra League, American Association of Museums, American Folklore Society, Association of American Dance Companies, Theatre Communications Group, National Association for Regional Ballet, OPERA America, Poets and Writers, Inc.

In addition to the national service organizations, which provide important information and technical assistance to their broad professional and nonprofessional memberships, other service groups in expansion arts and visual arts serve smaller regional areas in important ways.

Self-help programs are increasingly important particularly because demands keep growing despite the current financial crunch. These service groups can set up workshops and open up lines of communications so that means and methods of attracting additional private monies or cutting costs or increasing earned income can quickly be translated into action on a wide front. Too often cultural groups go to unneeded efforts and expense to re-invent the wheel in areas such as these for lack of sufficient channels of communication and other technical assistance. Funds here are urgently needed and can reap vast benefits for very few Federal dollars.

IV. Program Development and Evaluation

Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
$1,807,686	$2,242,500	$2,460,000	$217,500

The Arts Endowment's catalyst activities are becoming more needed and required by its constituency. These efforts vary and include: research primarily aimed as a tool for Endowment programming; provision of technical asssistance to Expansion Arts and other grantees; evaluation concerning artistic standards and administrative practices; improvement in graphic design by state and Federal governments; development of new ways for artists and cultural institutions

to generate earned income; and increased cooperative efforts with other agencies of government. All are essential to sound programming and allow the Arts Endowment to assist artists and cultural institutions to be responsive to opportunities such as the celebration of our Nation's bicentennial, changing economic conditions and developments in the energy field. Program development and evaluation funds will continue to insure that the Arts Endowment can call on panelists and consultants as program development advisors and evaluators; can utilize part-time and temporary assistance to free up staff to develop programs; and can provide for essential on-site project visits to evaluate programs.

Additional developmental and/or evaluation needs total over $3,500,000. The National Council and the staff are working to determine highest priorities among, for example:

-- Interpretation and follow-up on the Arts Endowment's major museum survey, including national and regional conferences -- possibly broadening scope to include Ford Foundation study on performing arts groups ($300,000).

-- State arts agency study and beginning of interpretation and follow-up ($200,000).

-- Survey of community-based professionally-directed groups (Expansion Arts) ($300,000).

-- Program development and survey of choral groups ($50,000).

-- Architecture and design technical assistance for Federal and state agencies as part of the Design Improvement Program ($100,000).

-- Federal Design Assembly and follow-up ($200,000).

-- Survey and evaluation of service organizations in the arts ($350,000).

-- Contracts for the planning, testing and dissemination of information on ways artists and cultural institutions can increase their earned and contributed income ($600,000).

-- Comprehensive review and evaluation of all "educational" elements of Arts Endowment programs ($200,000).

-- Endowment program information films and other materials to aid present and potential grantees and stimulate private, state and local funding for arts programs piloted by the Endowment ($450,000).

-- Continuation of music evaluation studies in orchestra and opera ($150,000).

-- Study of individual artists ($200,000).

-- Study and interpretive follow-up on the role and responsibility of trustees ($200,000).

-- Research, technical assistance, regional seminars and workshops for purposes of assisting state arts agencies to exchange knowledge about programs and to improve administration of State-Federal Dance Touring and Artists-in-Schools Programs ($300,000).

V. The Treasury Fund (Gifts, Donations, and Matching Federal Funds)

	Actual FY 74	Estimate FY 75	Estimate FY 76	Increase
Appropriations	$ 6,500,000	$ 7,500,000	$ 7,500,000	$ -0-
Gifts	$ 6,500,000	$ 7,500,000	$ 7,500,000	$ -0-

The National Endowment for the Arts enabling legislation includes a unique provision, the Treasury Fund, which allows the Endowment to work in partnership with private and other nonfederal sources of support in funding projects eligible under the Endowment's program guidelines and recommended by the Endowment's advisory panels and the National Council on the Arts.

Treasury Fund monies, which are appropriated by the Congress and held for the Endowment in the U.S. Treasury, are released only upon receipt at the Endowment of private or other nonfederal donations. When a donation is received, an equal amount is released from the Treasury Fund; the Endowment makes a Treasury Fund grant (½ private; ½ federal), the entire amount of which must in turn be matched again at least $1 for $1 by the grantee. Thus, the Treasury Fund generates at least $3 in nonfederal funds for every federal $1.

Contributions may be sent to the Endowment earmarked (19,575 in FY 1974) for organizations which have applied and been recommended through the regular grants process. Unrestricted donations (15 in FY 1974) may also be made.

The Treasury Fund is viewed as a highly effective means of combining federal and private support, as encouragement to cultural organizations in their own fund-raising efforts, and as incentive to potential donors, especially those representing new or substantially increased sources of funds.

Treasury Fund grants are made to groups eligible under the Endowment's regular program guidelines, go through the same review procedures, and generally are for the same types of projects as program fund grants. For example, out of the 168 Orchestra and Opera Program grants made during Fiscal Year 1974, 54 were funded either totally or partially through the Treasury Fund method. These grants were for the same types of projects (e.g. youth concerts) as other Orchestra and Opera Program grants; the method of funding was different, aimed at assisting these grantees in their fund-raising efforts and, importantly, at stimulating new and increased monies for cultural activities. A notable example of this "catalyst" effect occurred through the Endowment's major $2 million Treasury Fund challenge grant (½ private; ½ federal) to the Metropolitan Opera Association. An appeal to the Met's national radio audience resulted in over 17,000 donations, ranging from $1 to $10,000, from all 50 states and Canada.

During Fiscal Year 1974, the Endowment received 19,590 donations and made a total of 128 grants funded either wholly or partially through the Treasury Fund. Thirty-five were for orchestras, 19 for opera companies, 31 for museums, 9 for music conservatories, one for a major television programming project and the rest for a variety of activities including neighborhood arts services, special state agency programming, music audience development, jazz/folk/ethnic music, and

artists-in-schools. It is anticipated that Treasury Fund grants will be roughly comparable in Fiscal Years 1975 and 1976. The most noticeable increase from Fiscal Year 1974 to 1975 occurs in the Museum Program, with funds directed to ongoing program categories, particularly renovation for preservation purposes.

The National Council on the Arts and the Endowment are deeply committed to the Treasury Fund concept, strongly believe in its value in stimulating increased outside funding for cultural activities, and are currently engaged in important efforts to streamline the mechanism and further enhance the impact of this type of funding.

NATIONAL ENDOWMENT FOR THE ARTS

SUMMARY OF OBLIGATIONS BY OBJECTIVE

	FY 74 Actual Amount	%	FY 75 Estimate Amount	%	FY 76 Request Amount	%
1. Availability of the Arts	$27,311,844.98	41.5	$35,556,619	54.6	$38,582,500	53.6
2. Cultural Resources Development	21,888,579.55	33.3	13,412,000	20.6	15,630,000	21.7
3. Advancement of our Cultural Legacy	16,583,669.31	25.2	16,175,500	24.8	17,827,500	24.7
SUBTOTALS	$65,784,093.84	100.0	$65,144,119	100.0	$72,040,000	100.0
4. Program Development and Evaluation	1,807,685.77	-----	2,242,500	-----	2,460,000	-----
5. Miscellaneous	24,223.95	-----	-0-	-----	-0-	-----
6. Gifts, Donations, and Matching Funds	1/	-----	17,879,204 2/	-----	15,000,000	-----
TOTALS	$67,616,003.56		$85,265,823 2/		$89,500,000	

1/ Gifts, donations, and federal matching funds have been distributed by objective.

2/ Includes funds carried over from Fiscal 1974. Does not include $1,217,949.25 equity in assets which is not available for obligation.

NATIONAL ENDOWMENT FOR THE ARTS

SUMMARY OF OBLIGATIONS BY PROGRAM AREA

Program Area	FISCAL 1973[1/] Actual	%	FISCAL 1974[1/] Actual	%	FISCAL 1975[2/] Estimate	%
Architecture + Environmental Arts	$ 1,563,921	(3.8)	$ 4,202,353	(6.4)	$ 2,655,000	(4.1)
Dance	2,759,010	(6.7)	3,942,327	(6.0)	4,980,000	(7.6)
Education	2,529,970	(6.2)	3,576,425	(5.4)	4,167,500	(6.4)
Expansion Arts	2,524,556	(6.2)	4,098,629	(6.2)	5,050,500	(7.7)
Federal-State Partnership	6,871,250	(16.7)	10,558,296	(16.0)	14,348,640	(22.0)
Literature	774,789	(1.9)	1,393,647	(2.1)	1,445,000	(2.2)
Museums	4,615,041	(11.2)	9,050,907	(13.8)	6,905,000	(10.6)
Music	10,382,210	(25.3)	16,116,311	(24.5)	7,412,000	(11.4)
Public Media	2,766,558	(6.7)	4,681,803	(7.1)	5,446,000	(8.4)
Special Projects (Incl. Folk Arts)	1,002,308	(2.4)	894,144	(1.4)	4,549,479	(7.0)
Theatre	3,335,122	(8.1)	4,957,052	(7.5)	4,870,000	(7.5)
Visual Arts	1,980,576	(4.8)	2,335,721	(3.6)	2,915,000	(4.5)
Research	-0-	(0.0)	-0-	(0.0)	400,000	(0.6)
SUBTOTAL	$41,105,311	(100.0)	$65,807,615	(100.0)	$65,144,119	(100.0)
Miscellaneous	27,967		703		-0-	
Program Development and Evaluation	897,720		1,807,686		2,242,500	
TOTAL	$42,030,998[1/]		$67,616,004[1/]		$67,386,619[2/]	

1/ Includes the Treasury Fund (both gifts and federal matching) distributed by program area.

2/ Does not include the Treasury Fund (gifts nor federal matching).

NATIONAL ENDOWMENT FOR THE ARTS

SUMMARY OF OBLIGATIONS: NATIONAL, REGIONAL, AND WITHIN STATE

	FY 72		FY 73		FY 74	
	No.	Amount	No.	Amount	No.	Amount
National					172	$13,028,612.26
	101	$ 5,803,874*	123	$ 7,488,765*		
Regional					52	2,458,115
Within State	1442	27,299,161	2020	34,542,293	2745	52,129,248.30
TOTALS	1543	$33,103,035	2143	$42,031,058**	2969	$67,615,975.56***

*The number and amount of grants obligated in FY 72 and FY 73 were not broken down into National and Regional projects; hence, the figures for these years indicate the National and Regional projects combined.

**$60 unreconciled.

***$28 unreconciled.

NATIONAL ENDOWMENT FOR THE ARTS

FY 74 GRANTS WITH STATE AND REGIONAL BREAKDOWNS

	Grants to Individuals, Groups, and Agencies, by State (excluding Regional Projects)		State Participation in Regional Projects*		Total Grants and Monies Directly Affecting Each State	
	No.	Amount	No.	Amount	No.	Amount
Alabama	18	$ 341,094	5	$ 39,321	23	$ 380,415
Alaska	21	385,108	1	3,640	22	388,748
Arizona	27	387,388	6	65,287	33	452,675
Arkansas	9	412,458	4	9,853	13	422,311
California	288	4,489,765	13	241,794	301	4,731,559
Colorado	32	881,297	6	45,436	38	926,733
Connecticut	56	1,221,852	5	29,953	61	1,251,805
Delaware	12	327,333.34	2	6,972	14	334,305.34
Florida	39	704,272	3	27,017	42	731,289
Georgia	29	821,738.23	6	36,296	35	858,034.23
Hawaii	13	479,969	2	22,281	15	502,250
Idaho	7	273,514	4	33,006	11	306,520
Illinois	95	1,796,288	10	58,491	105	1,854,779
Indiana	28	519,299	7	21,449	35	540,748
Iowa	24	394,691	9	71,855	33	466,546
Kansas	16	293,025	8	111,270	24	404,295
Kentucky	30	516,345	5	21,788	35	538,133
Louisiana	32	668,972	6	29,494	38	698,466
Maine	27	380,300	2	15,284	29	395,584
Maryland	66	1,743,352.62	3	9,966	69	1,753,318.62
Massachusetts	154	3,252,299	6	36,120	160	3,288,419
Michigan	55	1,007,198	6	43,499	61	1,050,697

*Some amounts for individual states were determined by dividing the grant amount by the number of states involved; this was done in those cases where a dollar breakdown by state was not available.

NATIONAL ENDOWMENT FOR THE ARTS

FY 74 GRANTS WITH STATE AND REGIONAL BREAKDOWNS

	Grants to Individuals, Groups, and Agencies, by State (excluding Regional Projects)		State Participation in Regional Projects*		Total Grants and Monies Directly Affecting Each State	
	No.	Amount	No.	Amount	No.	Amount
Minnesota	76	$1,666,175	9	$ 66,523	85	$1,732,698
Mississippi	17	329,580	7	57,444	24	387,024
Missouri	31	775,307	11	162,213	42	937,520
Montana	12	238,212	3	28,430	15	266,642
Nebraska	19	362,054	8	101,838	27	463,892
Nevada	4	193,357	6	65,287	10	258,644
New Hampshire	26	351,742.98	4	26,950	30	378,692.98
New Jersey	45	735,425	3	8,216	48	743,641
New Mexico	30	563,393	5	62,430	35	625,823
New York	631	9,172,540.17	8	56,074	639	9,228,614.17
North Carolina	40	630,796	6	37,374	46	668,170
North Dakota	9	197,500	5	33,049	14	230,549
Ohio	86	1,930,505	10	61,309	96	1,991,814
Oklahoma	18	340,545	4	18,857	22	359,402
Oregon	28	579,953	6	68,038	34	647,991
Pennsylvania	112	2,043,763	7	63,144	119	2,106,907
Rhode Island	30	584,706	4	24,450	34	609,156
South Carolina	32	604,930	5	18,110	37	623,040
South Dakota	12	226,021.56	4	25,549	16	251,570.56
Tennessee	32	591,102	5	34,791	37	625,893
Texas	78	2,051,438	6	21,606	84	2,073,044
Utah	24	560,945	5	32,925	29	593,870
Vermont	29	357,833	4	26,950	33	384,783
Virginia	33	553,185	3	29,429	36	582,614
Washington	50	1,243,260	8	61,928	58	1,305,188

*Some amounts for individual states were determined by dividing the grant amount by the number of states involved; this was done in those cases where a dollar breakdown by state was not available.

NATIONAL ENDOWMENT FOR THE ARTS

FY 74 GRANTS WITH STATE AND REGIONAL BREAKDOWNS

	Grants to Individuals, Groups, and Agencies, by State (excluding Regional Projects)		State Participation in Regional Projects*		Total Grants and Monies Directly Affecting Each State	
	No.	Amount	No.	Amount	No.	Amount
West Virginia	11	$ 297,730	4	$ 13,466	15	$ 311,196
Wisconsin	34	663,515	7	54,547	41	718,062
Wyoming	11	237,838	3	28,430	14	266,268
District of Columbia	92	2,124,638.40	5	137,735	97	2,262,373.40
American Samoa	1	60,000	0	-0-	1	60,000
Guam	2	112,200	0	-0-	2	112,200
Puerto Rico	6	256,833	0	-0-	6	256,833
Virgin Islands	6	194,667	1	4,166	7	198,833
Regional Studies & Grants where States not determined			2	46,785	2	46,785
Totals	2745	$52,129,248.30	52**	$2,458,115	2,797***	$54,587,363.30

*Some amounts for individual states were determined by dividing the grant amount by the number of states involved; this was done in those cases where a dollar breakdown by state was not available.

**This is the total of Regional Projects, not the total of states involved.

***This is the total of grants within states plus the total of Regional Projects.

NATIONAL ENDOWMENT FOR THE ARTS

REGIONAL PROJECTS

FY 1974

America the Beautiful Fund (Local cultural programs) (California, Illinois, Indiana, Ohio, Texas)	$ 25,000
American Conservatory Theatre Foundation, Inc. (Tour) (California, Hawaii)	20,000
American Federation of Arts (Exhibition) (Six states, not yet decided)	36,785
American Puppet Arts Council (Bil Baird Theater) (Tour) (Missouri, Pennsylvania)	25,000
Antioch Ensemble Company (Tour) (Georgia, Louisiana, Ohio, Texas, West Virginia)	7,500
Architectural League of New York (Exhibition) (California, Illinois, Massachusetts, Minnesota, New York, Texas)	10,000
Association of American Dance Companies (Seminar) (California, New York, Ohio, Texas, Utah)	12,000
Ballet Theatre Foundation, Inc. (Tour) (California, Colorado, District of Columbia, Illinois, Louisiana, New York, Washington, Wisconsin)	234,356
Boston Symphony Orchestra (Joint commission) (California, Illinois, Massachusetts, New York, Ohio, Pennsylvania)	60,000
City Center of Music and Drama, Inc. for the New York City Ballet (Tour) (California, District of Columbia, New York, Virginia)	103,200
Colorado Foundation on the Arts and Humanities (Regional coordination) (Alaska, Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming)	40,000
Connecticut Commission on the Arts (Touring music ensembles) (Connecticut, Massachusetts, Rhode Island)	10,000
Detroit Symphony Orchestra, Inc. (Joint commission) (California, District of Columbia, Michigan, Minnesota, Missouri, Ohio, Pennsylvania)	206,000
FOCIS/Neighborhood Arts Services (Tour Event) (Georgia, Kentucky, North Carolina, Tennessee, Virginia, West Virginia)	30,000
Foundation for American Dance, Inc./City Center Joffrey Ballet (Tour) (California, Iowa, Kansas, Missouri, Nebraska, Oregon, Washington)	108,000
Galveston Arts Council (Tour Event) (Alabama, Louisiana, Mississippi, Texas)	40,000
Illinois Arts Council Foundation (Regional coordination) (Illinois, Indiana, Kentucky, Michigan, Ohio)	5,000
Kansas City Lyric Theatre for CO-OPERA (Study) (Minnesota, Missouri, New York)	8,750

Regional Projects - 1975 (Cont.)

Kansas City Trust and Foundation (Regional coordination) (Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin)	$ 40,000
Massachusetts Arts and Humanities Council (Opera tour) (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)	60,000
Massachusetts Arts and Humanities Council (Regional coordination) (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)	31,707
Mid-America Arts Alliance (Concert tour and classes) (Iowa, Kansas, Missouri, Nebraska)	50,000
Mid-America Arts Alliance (Exhibition) (Kansas, Missouri, Nebraska)	150,000
Mid-America Arts Alliance (Exhibition) (Iowa, Kansas, Missouri, Nebraska, North Dakota)	37,500
Mid-America Arts Alliance (Theatre Touring) (Kansas, Missouri, Nebraska, Oklahoma)	44,000
Mid-America Arts Alliance (Dance Touring) (Arkansas, Kansas, Missouri, Nebraska, Oklahoma)	10,000
Mid-America Arts Alliance (Dance Touring) (Iowa, Kansas, Missouri, Nebraska)	50,400
Milwaukee Inner City Cultural Center (Tour Event) (Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin)	40,000
National Center for Experiments in Television (Seminar) (Arizona, California, Colorado, Idaho, Nevada, Oregon, Washington)	20,000
National Trust for Historic Preservation in the United States (Preservation Assistance Program) (Alabama, Arizona, California, Colorado, Hawaii, Indiana, Montana, Nevada, New Mexico, Oregon, Utah Washington, Wyoming)	29,665
New Hampshire Regional Arts Council (Classroom arts programs) (New Hampshire, Vermont)	10,000
New York Street Theatre Caravan (Tour) (California, Michigan, Washington)	9,500
Oregon Arts Foundation (Regional coordination) (Arizona, Colorado, Idaho, Nevada, New Mexico, Oklahoma, Utah, Washington)	32,000
Otrabanda Company (Tour) (Arkansas, Illinois, Indiana, Kentucky, Louisiana, Mississippi, Missouri)	23,430
Pennsylvania Council on the Arts (Local cultural programs) (Delaware, Maryland, New Jersey, Pennsylvania, West Virginia)	14,000
Performers Committee for 20th Century Music (Residencies) (California, District of Columbia, Indiana, Minnesota, New Jersey, Ohio, Pennsylvania, South Carolina)	10,000
Rhode Island Arts Council (Tour Event) (Connecticut, Massachusetts, New Hampshire, New York, Rhode Island, Vermont)	40,000

Rocky Mountain Arts and Humanities Foundation (Arts resources programs) (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming)	$ 225,138
Gregg Smith Singers, Inc. (Workshops) (New York, North Carolina, Ohio)	7,750
South Carolina Arts Commission (Dance Touring) (Georgia, North Carolina, South Carolina, Tennessee)	11,097
South Carolina Arts Commission (Rural arts program) (Kentucky, Mississippi, South Carolina)	28,742
Southern Growth Policies Board (Artrain) (Alabama, Florida, Georgia, Mississippi, North Carolina, Tennessee)	135,070
Southern Growth Policies Board (Regional study) (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee)	9,565
Southern Growth Policies Board (Regional coordination) (Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina)	31,000
Spring Hill Conference Center (Seminar) (States involved not available)	10,000
T.P. Tower Playpen/A Video Workshop, Inc. (Tour) (Connecticut, Illinois, Maryland, Pennsylvania, Wisconsin)	15,000
Upper Midwest Regional Arts Council (Dance Touring) (Iowa, Minnesota, North Dakota, South Dakota, Wisconsin)	8,500
Upper Midwest Regional Arts Council (Regional arts programming) (Iowa, Minnesota, North Dakota, South Dakota, Wisconsin)	100,000
Upper Midwest Regional Arts Council (Conference) (Iowa, Minnesota, North Dakota, South Dakota, Wisconsin)	4,960
Washington Performing Arts Society (Regional coordination) (Delaware, District of Columbia, Maryland, New Jersey, Ohio, Pennsylvania, Virginia, Virgin Islands, West Virginia)	37,500
Western Opera Theater (Tour) (Arizona, California, Nevada, New Mexico, Oregon)	150,000
FY 1974 Total	$2,458,115

NATIONAL ENDOWMENT FOR THE ARTS

NATIONAL PROJECTS

FY 1974

Academy of Natural Sciences	$ 2,850
Affiliate Artists, Inc.	200,000
Afro-American Music Opportunities Association, Inc. (Anthology)	58,500
Alternate Media Center/New York University (Cable TV Internships)	101,105
America the Beautiful Fund of the Natural Area Council	25,000
American Association for State and Local History	10,000
American Association of Museums (Seminar)	22,562
American Crafts Council (Directory)	18,000
American Dance Guild, Inc.	6,125
American Design Bicentennial	40,000
American Federation of Arts (Catalogue)	4,200
American Federation of Arts (Touring Exhibitions)	37,750
The American Film Institute	1,100,000
The American Film Institute (Contract/Film Preservation)	390,000
The American Film Institute (Contract/Filmmaker Grants)	260,000
American Music Center, Inc.	20,750
American National Theatre and Academy	150,000
American Society of Landscape Architects Foundation	10,000
American Symphony Orchestra League	86,000
American Theatre Association (University Resident Theatre Association)	15,000
American Theatre Association (American Community Theatre Festival)	5,000
Architectural Heritage, Inc.	46,800
Artists Technical Research Institute	6,000
Associated Councils of the Arts	140,810
Associated Councils of the Arts (Directory)	20,000
Association of American Dance Companies	42,000
Association of College, University and Community Arts Administrators	25,700
Association of Science-Technology Centers (Touring Exhibition)	25,000
Avant-Garde Music Festivals, Inc.	38,000
Bay Area Educational Television Association (KQED-TV)	10,000
Boston Visual Artists Union (Seminar)	15,000
Brooklyn College (Theatre artisan training)	50,000
Frederic Burk Foundation (San Francisco Poetry Center) (Videotape Project)	29,320
Cable Arts Foundation, Inc. (Film Series)	44,788
Carnegie Hall Corporation (Young Artists Radio Broadcasts)	12,500
Center for Design Planning	35,000
Center for Inter-American Relations (Touring Exhibition)	24,610
Center for Understanding Media, Inc. (Artists-in-Schools)	80,000

Center for Understanding Media, Inc. (Publication)	$ 24,805
Center for Understanding Media, Inc. (Short Film Showcasing)	98,500
Central California Educational Television (Television Film Series)	250,000
Chicago Educational Television Association/WTTW Channel 11 (Television Film Series)	15,000
City Center Acting Company (Group I Acting Company) (Tour)	125,000
Tom Coleman (Federal Graphics Improvement Program)	30,000
Community Television of Southern California (Television Theatre Series)	1,000,000
Connecticut College (American Dance Festival/ critics', composers' and choreographers' workshops/film)	78,550
Coordinating Council of Literary Magazines	300,000
The Corning Museum of Glass (Seminar)	5,800
Corporation for Public Broadcasting (Seminar)	17,000
Lois Craig (Federal Architecture Guidelines)	116,000
Dance Notation Bureau, Inc.	45,000
Educational Broadcasting Corporation	163,048
Educational Facilities Laboratories, Inc. (Report)	40,000
Educational Film Library Association, Inc.	7,625
Electronic Arts Intermix, Inc. (Conference)	20,000
Festival Foundation, Inc.	35,000
Film Art Fund, Inc.	25,000
Film Art Fund/Anthology Film Archives (Seminar)	15,000
Film and Television Study Center, Inc.	21,745
Film Culture Nonprofit, Inc.	7,000
Foundation for the Extension and Development of the American Professional Theatre	45,000
Goldovsky Opera Institute (Tour)	100,000
Lawrence Halprin (Federal Graphics Workshop)	30,000
The Heye Foundation/Museum of the American Indian (Touring Exhibition)	100,000
Industrial Designers Society of America	46,500
Intermedia Systems Corporation (Federal Design Assembly)	15,000
International Center of Theatre Creation	25,927
International Committee of Museums/Solomon R. Guggenheim Foundation	3,600
International Contemporary Music Exchange	25,000
International Theatre Institute of the United States	60,000
Jargon Society (Book Distribution)	36,706
League of Professional Theatre Training Programs	10,000
Library of Congress (Anthology of Folk Music)	25,000
Metropolitan Opera Association	1,793,000
Museum of Modern Art (Touring Exhibition)	41,742
Music Critics Association Educational Activities, Inc.	7,000
Musical Comedy Foundation, Inc.	50,000
Music Project for Television, Inc.	50,000
National Association of Media Educators (Conference)	60,000
National Association for Regional Ballet, Inc. (Conference)	66,015

National Book Committee	$ 50,000
National Council on the Aging, Inc.	25,000
National Guild of Community Music Schools	32,000
National Opera Institute	481,900.34
National Public Radio, Inc.	27,125
National Recreation and Parks Association (Parks, Arts, and Leisure Projects)	47,000
National Trust for Historic Preservation in the United States	35,500
The Negro Ensemble Company, Inc. (Tour)	25,000
The New Classroom (Magazine)	12,000
New York Foundation for the Arts, Inc. (Artists-in-Schools)	167,000
New York Public Library/Astor, Lenox, and Tilden Foundation (Dance Films)	81,650
New York State Foundation/Committee of Small Magazine Editors and Publishers (Conference)	5,000
New York State Historical Association (Internships)	143,000
North American Zone Festival	50,000
Office for Advanced Drama Research	50,000
Eugene O'Neill Memorial Theatre Foundation, Inc. (Conference)	65,000
OPERA America, Inc.	30,000
Opportunity Resources for the Performing Arts, Inc.	20,000
Pacifica Foundation Station, KPFA-FM (Radio Series on the Arts)	8,330
Pacifica Foundation Station, KPFA-FM (Radio Broadcasts)	10,000
Pan American Development Foundation	20,000
The Paper Bag Players, Inc. (Tour)	45,000
Peabody Institute for the Association of Independent Colleges of Music	20,000
P.E.N. (Poets, Playwrights, Essayists, Editors and Novelists) American Center	68,314
Performing Arts Repertory Theatre Foundation, Inc.	15,000
Poets and Writers, Inc. (Directory)	144,000
Regents of the University of California at Los Angeles (Television Library)	10,000
Regents of the University of Minnesota (Office of Advanced Drama Research)	75,000
Smithsonian Institution/Renwick Gallery (Touring Exhibition)	15,000
Smithsonian Institution (Jazz and Visual Arts oral histories)	45,000
Society of North American Goldsmiths	5,000
Spring Hill Conference Center	35,900
Street Theater, Inc. (Tour)	25,000
Suitcase Theatre (Tour)	12,500
Peter Tasi (Federal Design Assembly)	14,000
Teachers and Writers Collaborative	24,400
Technical Assistance Group, Ltd.	28,000
Tennessee Arts Commission (International Ceramics Symposium)	8,000
The Textile Museum (Seminar)	7,120
Theatre Communications Group, Inc.	250,000
Theatre Development Fund, Inc.	15,060
Theatre Development Fund, Inc. for First American Congress of Theatre	10,000
Theatre Incorporated (Phoenix Theatre) (Tour)	100,000

Trustees of Columbia University (Translation Center)	$ 47,200
Union of Independent Colleges of Art	25,000
United Church Board for Homeland Ministries (Conference)	15,000
University of California at Los Angeles (Film Collection)	10,000
University of Illinois (Workshops on making cultural facilities accessible to the handicapped)	15,000
University of Kansas (Eighth National/International Sculpture Conference)	3,000
University of North Carolina at Chapel Hill (Institute of Outdoor Drama)	7,500
University of South Florida (Media Seminar)	10,000
University of Utah (Institute for the Arts in Post-Secondary Education)	30,000
U.S. Catholic Conference for Viterbo College (International Mime Institute and Festival)	20,000
Volunteer Lawyers for the Arts	25,000
Washington Metropolitan Chapter of AIA, Inc. (Conference)	11,075
West Virginia Arts and Humanities Council (National Conference of State Arts Supervisors)	16,000
Western Opera Theater (Tour)	29,195.20
Western States Arts Foundation	6,000
WGBH Educational Television Foundation (Television Drama)	50,000
Young Audiences, Inc.	250,000
Young Concert Artists, Inc.	30,000
Miscellaneous	24,223.95
Program Development and Evaluation	1,807,685.77
FY 1974 Total	$13,028,612.26

NATIONAL ENDOWMENT FOR THE ARTS

OBJECT CLASSIFICATION FOR ADMINISTRATIVE AND PROGRAM DEVELOPMENT AND EVALUATION FUNDS

		1974 ACTUAL	1975 ESTIMATE	1976 REQUEST
	PERSONNEL COMPENSATION:			
11.1	Permanent Positions	$1,464,524	$2,257,600	$2,230,600
11.3	Positions Other Than Permanent	741,868	1,113,800	368,800
11.5	Other Personnel Compensation	39,205	84,200	42,400
	Total Personnel Compensation	2,245,597	3,455,600	2,641,800
12.1	Personnel Benefits - Civilians	167,671	327,100	258,900
21.0	Travel and Transportation of Persons	545,993	938,400	333,600
22.0	Transportation of Things	3,010	500	500
23.0	Rent, Communications & Utilities	44,757	7,600	7,600
24.0	Printing and Reproduction	181,128	208,600	78,200
25.0	Other Services	604,606	789,200	161,900
26.0	Supplies and Materials	29,642	55,700	29,700
31.0	Equipment	1,450	-0-	-0-
	TOTAL	$3,823,854 1/	$5,782,700 2/	$3,512,200 3/

1/ Includes $1,807,686 obligated against Program Development and Evaluation Funds.
2/ Includes $2,242,500 current estimate of amounts to be obligated against Program Development and Evaluation Funds.
3/ Does not include any Program Development and Evaluation Funds.

TRANSITION PERIOD: JULY 1, 1976 - SEPTEMBER 30, 1976

The National Endowment for the Arts proposes a transition period program budget totalling $34,250,00:

Definite Appropriation	- for national, state agency, regional programs	$33,750,000
Indefinite Appropriation	- to match donations to the Endowment (Treasury Fund)	500,000
	TOTAL FEDERAL PROGRAM FUNDS....	$34,250,000
Donations to the Arts Endowment's Treasury Fund		500,000
	Total Program	$34,750,000

[NOTE: The appropriation language in the Appendix volume of the President's budget document covering the transition quarter failed to carry the amount that is included in the transition quarter totals through an inadvertent printing error. This error will be corrected in a February 1975 letter from the Office of Management and Budget to the appropriations and budget committees of both Houses.]

The Arts Endowment's request for federal funds totalling $34,250,000 is absolutely critical to meet the seasonal needs of our constituents and to continue the proper functioning of this agency.

During the past few years it has become clear that the inability to move grants in the time frame of July-September has caused severe problems to our constituents and resulted in justified criticism of the Endowment.

For this reason, the Endowment has been working for two years to correct administrative difficulties and to move obligations into the July-September period.

Actions taken: we commissioned a management task force involving Council members; we hired a systems expert; we employed two management consultants; we re-organized the agency. As of January 6, we have an Assistant Chairman for Management and a senior staff official with responsibility for program guidelines which establish the flow of staff, panel, Council decision to meet the requirements of the July-September time frame. And, we were finally able to increase the size of the Grants Office to handle the dramatic increase in applications, which were causing delays in the grants process, since both applications and grants are handled by one office.

THE key factor in our improvement program was to increase the obligations made between July 1 and September 30. This is essential for many reasons, but primarily because the state arts agencies require their monies at the beginning of July when their fiscal years begin, and the cultural organizations require their funds before their seasons begin in late summer or early fall.

The time required to change administrative procedures and solve some staffing problems prevented swift action. However, we were able to move $18 million (about 20 percent of the budget) in the first quarter of Fiscal 1975; compared to 15 percent in Fiscal 1974. While this showed progress, it was totally inadequate as we were well aware. The criticism, particularly from the state agencies, museums and performing groups, was in our view justified.

Our calculations painstakingly developed by staff and advisors, are based on the requirements of the grantees and indicate that we need to move a minimum of $34,750,000 in the transition period. This transition period funding request is based on Fiscal 1976 levels. We will be moving a comparable amount in the upcoming first quarter of 1976.

The figure for the transition period following Fiscal 1976 is tight. It does not include any obligations for four entire program divisions, which could cause delays in their current processing patterns. Out of 115 categories of funding, only about 15 are slated for any funding at the $34,750,000 level. Included are categories of aid for state (and regional) arts agencies, orchestras, opera, theatre and dance companies, an important expansion arts program, some folk arts and other special projects.

Without this minimum figure, we would be forced to move backward. Grants which will finally move the way they should in Fiscal 1976, must also move during the transition period. Otherwise, our constituents would be harmed. We would have to revise guidelines/deadlines/project periods; being forced either to delay critically needed obligations or obligate portions of grants during the transition period and then amend all those grants later. The negative ramifications of either option for rational and effective operations are staggering. All of our past efforts would go down the drain. It would be impossible for the staff to handle the workload. And the agency is requesting no increase in personnel.

It should be noted that beginning with the new Fiscal 1977, the agency's heaviest obligations quarter (July/August/September 1977) will move to the last rather than the first quarter. This will be extremely helpful to the agency and its constituents in terms of planning.

NATIONAL ENDOWMENT FOR THE ARTS

FY 1976 Estimate and July 1-Sept. 30 Transition Period

ACTIVITY	FY 1976 Estimate	Estimate, July-Sept. 30, 1976
Availability of the Arts	$38,582,500	$16,625,000
Cultural Resources Development	15,630,000	14,175,000
Advancement of our Cultural Legacy	17,827,500	2,300,000
Program Development and Evaluation	2,460,000	650,000
/Sub-total, Definite Appropriations/	[74,500,000]	[33,750,000]
Indefinite Appropriations (to match donations)	7,500,000	500,000
TOTAL FEDERAL FUNDS	$82,000,000	$34,250,000
Donations	7,500,000	500,000
Total Program	89,500,000	34,750,000

NATIONAL ENDOWMENT FOR THE HUMANITIES

I. SUMMARY STATEMENT: THE ENDOWMENT IN FY 1976

Introduction: The Dimensions of the Budget

The budget for fiscal year 1976 proposes $74.5 million in definite appropriations and $7.5 million in indefinite funds to match gifts generated from private or non-Federal sources. While an increase over the FY 1975 appropriations, the total request of $82 million is precisely that amount originally requested for the current year and less than two-thirds of the appropriations authorized for 1976 by the NFAH Act. This requested budget will obviously permit only slight expansion in a few selected areas of Endowment activity, but these areas are critical in the light of two serious developments, one external to the humanities, the other internal.

The more apparent of these is the feeling among a growing part of the citizenry that after two centuries of seemingly unlimited economic growth and a high degree of popular consensus about the purposes of American society and the legitimacy of its institutions, the nation is entering a period of major challenges and, therefore, of continuing debate over basic values and priorities; a period in which critical thought, rational dialogue, sober consideration of alternative policies, a putting of immediate problems into a broader perspective -- the unique purposes of humanistic inquiry -- is more than ever needed.

At the same time, however, another development -- a combination of financial cutbacks, increasing deficits, spiraling inflation, coupled with a declining return on their endowments -- is undermining the capacity of humanistic institutions to play their crucial role in dealing with these problems, and threatening the basic humanistic resources, both human and material, which have been painstakingly nurtured during the past decade. Various aspects of this alarming situation are discussed below. Here it need be said simply that the scope of the needs to which the Endowment is mandated to respond calls in fact for sums vastly greater than proposed in this budget.

The Reach of the Endowment

Like all agencies, the Endowment at its inception had several obvious constituents. The traditional humanities disciplines, their institutional homes, and their professional organizations were quick to offer guidance and assistance; and throughout the Endowment's existence, these ties have been invaluable. The scholar and the educator have used the funds wisely; they have served oftentimes without remuneration to judge their peers' proposals; and through their applications, letters, and visits they have helped the agency explore the as yet unmet needs in the humanities. With the help of these people, over time the Endowment was able to see and, more importantly, to serve a broader constituency, the American people.

This constituency while, of course, including the several hundred thousand scholars, teachers, librarians, museum staffs, and other professionals regularly associated with the humanities, has also grown to encompass a vast number of this nation's people -- of widely varied ages, backgrounds, and occupations, in rural and

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urban areas -- who have not traditionally been involved in humanistic education: the two-year college vocational student, the small town resident, the young person out of school, the adult citizen whether homemaker, blue-collar worker, or practicing professional. Efforts to bring these newly identified constituents into active and useful contact with the humanities have been guided by the legislative mandate which makes clear that the National Endowment for the Humanities, while unique in its orientation, shares with other Federal agencies the responsibility for promoting the general welfare of the citizenry and supporting those national purposes which bind us as a people. Accordingly, the Endowment now conducts a broad range of activities touching the lives of millions throughout all parts of the nation.

During the 12-month period ending June 30, 1974, the Endowment received 6,165 applications, requesting $206 million. Because of limited funds, actual grants numbered only 1,293 and totaled $60.2 million. Yet these grants aided individuals and institutions in all 50 states, the District of Columbia, and Puerto Rico. While only a small proportion of the total eligible universe of educational, cultural, and civic institutions could be aided, nevertheless, Endowment grants had a wide and continuing impact:

-- By the end of the present fiscal year every state in the union will have a fully operational State-based humanities program. These programs directly involved this past year over half a million adults and via the media an additional 10 million people. It is expected that up to 15 million adults will be reached directly or indirectly during FY 1975, with projects engaging actively in thoughtful examination of critical public issues of concern to their states.

-- The American Issues Forum (AIF) was launched, promising to become the national framework for a Bicentennial activity of all social sectors; complementing the AIF, other NEH Bicentennial programs were set on their planned course, including the Bicentennial History Program (which attracted some of the nation's foremost historian-writers like Bruce Catton to help prepare the 51-volume set of state histories), and the Bicentennial Youth Debate (which began its work to involve thousands of young people in research and discussion of great historical and contemporary issues next year).

-- The nine-part version of War and Peace shown twice over public television attracted millions of viewers; (while complete figures are not available for the nation, one million households in New York alone tuned in); and production was begun on the Endowment-backed "Adams Chronicles," the largest historical serial ever undertaken by American television.

-- This past September over 200 newspapers began the second Course by Newspaper, "In Search of the American Dream," offering their 20 million readers a specially prepared course developed by leading American history scholars which can either be taken for credit through a local participating college, or read for pleasure as a newspaper feature.

-- The Metropolitan Museum of Art exhibition of medieval French tapestries, supported by Endowment funds, drew 375,000 visitors -- the largest audience in the Metropolitan's history.

-- Over 160 colleges and universities were directly aided in strengthening their instructional programs in the humanities; and a bold new venture was established, the first National Institute for the Humanities, which will draw together distinguished senior and promising junior teachers from various regions to undertake, on a systematic and sustained basis, the development of interdisciplinary American studies programs for the nation's colleges.

-- Nearly 1,500 individual scholars and teachers received support for projects designed to increase the nation's stock of humanistic knowledge about ourselves, our institutions, our relations with the outside world, and about the development and contemporary problems of foreign societies (especially noteworthy was the $581,874 awarded last year for China-related studies).

-- As a result of the new Science, Technology, and Human Values program, created the previous year, the Endowment awarded over $3 million to this area in support of activities including humanities seminars for medical practitioners, ethics courses for students training for the health professions, humanistic courses for engineers, and museum exhibits and television programs on the social consequences of recent technological developments.

-- The 100th volume appeared in the Center for Editions of American Authors series, which is bringing to students, scholars, and general readers definitive editions of the nation's great writers.

-- The offer last year of over $6 million in private gifts meant that for the fifth straight year the limit of the Endowment's matching authority was reached, bringing to over $20 million the documentable level of private money generated by NEH during the 8 years of its operating life.

The Needs

Although Federal funding for the humanities has risen sharply during the past five years, the total amount remains small in comparison with the extent of the needs described each year in the budget request. Chief among these is the general need for increased humanistic knowledge to help people deal with the real or perceived crises of a changing "post-industrial" society.

Few will challenge the proposition that central and paramount to our society are questions of a humanistic nature rather than those solvable by science. Indeed, it is the emergence of the scientist's conscience and moral sense that has increased the public perceptions of the cultural, social, and ethical considerations entwined with science and technology. Nevertheless, the humanities claim a very small proportion of Federal funds or national support for knowledge production and dissemination. Beside the $21.7 billion budgeted next year by the Federal government for scientific and technological research and development (an increase of $2 billion over the

current year), the Endowment's requested support is fractional; and the amounts actually available to the humanities are much too small to bring about the necessary updating and improvements in schools and colleges which have seen dramatic strengthening in the sciences. Moreover, with the rapid leaps in inflation, the pressures to cut back basic institutional programs pose even greater obstacles to long overdue educational reform.

The imbalance in education continues to be reflected in many sectors of national life:

-- In 1973 three states reported that no humanities doctorates were awarded in their entire state, while every state reported at least five science doctorates; and beginning salaries of new science B.A. degree holders continue to average 25 percent above those of their counterparts with humanities degrees.

-- Scholarly journals, the principal source of interchange of humanistic ideas, are rapidly rising in cost to match increased publishing expenses; subscription costs of periodicals in languages and literature, for example, increased 20 percent last year; and reflecting this development, for the first time the number of journals published actually declined in 1973-74, when 569 journals ceased publication.

-- A review of the recently announced new season for commercial television indicates no regular programming will be allocated to the humanities (or indeed any other area of serious concern); and even on public television the few hours devoted to the humanities cannot begin to compare in quality or quantity with British-produced programming.

-- Last year specialist reviewers examined 6,165 formal applications requesting more than $206 million; of these, 2,636 applications were recommended for funding at a total cost of over $100 million. But only $60 million was available for awards. As judged by the current 1975 application rate, the gap between grants requested and grants awarded will increase substantially this year due to the severe economic situation confronting humanities institutions.

NATIONAL ENDOWMENT FOR THE HUMANITIES

Summary of Funds Available

	1974 Actual	1975 Estimated	1976 Requested	Increase or Decrease
Appropriation, definite program.....	$44,500,000	$67,250,000	$74,500,000	$7,250,000
Appropriation, indefinite matching funds	6,500,000	6,500,000	7,500,000	1,000,000
Total appropriation.....	51,000,000	73,750,000	82,000,000	8,250,000
Gifts and donations.....	6,114,556	6,500,000	7,500,000	1,000,000
Transfers from other agencies.....	333,207[1/]	100,000[3/]	- -	-100,000
Recovery of prior years' obligations....	1,118,236	- -	- -	- -
Unobligated balance prior year.....	6,995,071	5,293,408[4/]	- -	-5,293,408
Total available.....	65,561,070	85,643,408	89,500,000	3,856,592
Transfer to Arts Endowment (-).....	20,000	- -	- -	- -
Obligations (-).....	60,243,916	85,643,408	89,500,000	3,856,592
Unobligated balance.....	5,297,154[2/]	- -	- -	- -

1/ Includes transfer from the Arts Endowment ($33,207), Smithsonian Institution ($100,000), and the American Revolution Bicentennial Administration ($200,000).

2/ Includes $2,232,859 in definite funds, $1,636,057 in unrestricted gifts and matching funds, and $1,428,242 in restricted gifts and matching funds committed to approved projects but received too late in the year to be obligated. Unrestricted gifts of $3,750 equity in "Sea Form" sculpture are not available for obligation.

3/ Includes transfer of $100,000 from the Smithsonian Institution.

4/ Does not include $3,750 equity in assets which is not available for obligation.

NATIONAL ENDOWMENT FOR THE HUMANITIES

Analysis by Program Element

Program and Element DEFINITE APPROPRIATION	FY 1974 Actual	FY 1975 Estimated	Fiscal Year 1976 Unobligated Balance Prior Year	Fiscal Year 1976 Requested	Fiscal Year 1976 Estimated Total Available	Increase or Decrease
Public	$16,333,997	$28,100,000	- -	$30,200,000	$30,200,000	$2,100,000
State-based programs	7,568,571	13,500,000	- -	15,100,000	15,100,000	1,600,000
Media grants.....	3,427,949	6,000,000	- -	6,000,000	6,000,000	-0-
Museum & historical society program...	2,808,891 1/	4,500,000 1/	- -	5,000,000	5,000,000	500,000
Program development.	2,528,586	4,100,000	- -	4,100,000	4,100,000	-0-
Education	15,342,267	15,800,000	- -	17,050,000	17,050,000	1,250,000
Institutional grants	8,689,961	7,800,000	- -	7,800,000	7,800,000	-0-
Planning.....	(717,046)	(1,000,000)	- -	(1,000,000)	(1,000,000)	-0-
Program.....	(4,825,137)	(4,400,000)	- -	(3,600,000)	(3,600,000)	(-800,000)
Development.....	(3,147,778)	(2,400,000)	- -	(3,200,000)	(3,200,000)	(800,000)
Projects	3,893,083	5,050,000	- -	5,050,000	5,050,000	-0-
Higher education	(2,083,095)	(2,850,000)	- -	(2,850,000)	(2,850,000)	-0-
Elementary and secondary.....	(1,809,988)	(2,200,000)	- -	(2,200,000)	(2,200,000)	-0-
Humanities institutes.....	2,759,223	2,200,000	- -	3,000,000	3,000,000	800,000
Cultural institutions.....	- -	750,000	- -	900,000	900,000	150,000
Consultant grants.....	- -	2/	- -	300,000	300,000	300,000

1/ Includes transfer of $100,000 from the Smithsonian Institution.
2/ This program is being initiated in FY 1975 and it is anticipated that some grants will be made with funds allocated from other Education program activities.

Analysis by Program Element (continued)

Program and Element	FY 1974 Actual	FY 1975 Estimated	Fiscal Year 1976 Unobligated Balance Prior Year	Fiscal Year 1976 Requested	Fiscal Year 1976 Estimated Total Available	Increase or Decrease
Fellowships	$6,999,237	$9,800,000	- -	$10,350,000	$10,350,000	$ 550,000
Residential fellowships						
College faculty....	- -	2,600,000	- -	2,600,000	2,600,000	-0-
Summer seminars.....	1,361,841	2,500,000	- -	2,500,000	2,500,000	-0-
Professions.....	1,000,505	1,300,000	- -	1,650,000	1,650,000	350,000
Centers for advanced study.....	80,000	400,000	- -	400,000	400,000	-0-
Independent study fellowships						
Independent.....	- -	2,600,000	- -	2,800,000	2,800,000	200,000
Summer stipends.....	500,000	400,000	- -	400,000	400,000	-0-
Senior.....	1,852,518	- -	- -	- -	- -	- -
Younger humanist....	1,208,555	- -	- -	- -	- -	- -
Selected fields.....	454,420	- -	- -	- -	- -	- -
Jr. college faculty.	541,398	- -	- -	- -	- -	- -
Research Grants	7,619,935	9,625,000	- -	10,205,000	10,205,000	580,000
General research....	2,558,140	3,000,000	- -	3,000,000	3,000,000	-0-
Editing.....	1,917,802	1,500,000	- -	2,000,000	2,000,000	500,000
State and local history.....	228,102	500,000	- -	500,000	500,000	-0-
Bicentennial history program.....	290,568	825,000	- -	300,000	300,000	-525,000
Research tools.....	1,795,174	2,200,000	- -	2,250,000	2,250,000	50,000
Research centers....	547,989	600,000	- -	1,660,000	1,660,000	1,060,000
International bicentennial conferences....	282,160	1,000,000	- -	495,000	495,000	-505,000

Analysis by Program Element (continued)

Program and Element	FY 1974 Actual	FY 1975 Estimated	Fiscal Year 1976 Unobligated Balance Prior Year	Fiscal Year 1976 Requested	Fiscal Year 1976 Estimated Total Available	Increase or Decrease
Planning	$ 2,271,128	$ 6,257,859 1/	- -	$ 6,695,000	$ 6,695,000	$ 437,141
Development	1,842,113	5,007,859 1/	- -	4,795,000	4,795,000	-212,859
Dissemination		300,000	- -	500,000	500,000	200,000
Evaluation & analytical studies	98,228	300,000	- -	750,000	750,000	450,000
Youth programs	330,787	650,000	- -	650,000	650,000	-0-
Total obligations definite approp.	48,566,564	69,582,859	- -	74,500,000	74,500,000	4,917,141
Unobligated balance	2,232,859	- -	- -	- -	- -	- -
Total definite appropriation available	50,799,423	69,582,859	- -	74,500,000	74,500,000	4,917,141
INDEFINITE APPROPRIATION						
Obligation from gifts and matching funds	11,677,352	16,060,549	- -	15,000,000	15,000,000	-1,060,549
Unobligated balance	3,064,298	- -	- -	- -	- -	- -
Total indefinite appropriation available	14,741,650	16,060,549	- -	15,000,000	15,000,000	-1,060,549
GRAND TOTAL	65,541,073	85,643,408 2/	- -	89,500,000	89,500,000	3,856,592

1/ Includes all obligations from definite program funds for miscellaneous "Program development and evaluation" activities undertaken by NEH divisions (FY 1974: $864,271; FY 1975: $1,634,500).

2/ Includes FY 1975 appropriations ($67,250,000 definite and $6,500,000 indefinite), carryover from FY 1974 ($2,232,859 definite and $3,064,299 in gifts and matching funds committed to approved projects but received too late in the fiscal year to be obligated) and $333,207 transfered from other agencies.

Emphases for 1976

1. Program Balance. Only one new program is proposed for FY 1976. This is not because underfunded areas of the humanities grow fewer, but because the pressing financial situation of humanities institutions is putting even greater demand on existing Endowment programs. This situation also requires a slight shift in the general distribution of NEH program funds.

During the past four years the largest part of increased funding has been allocated to public programs. This policy sprang from a strong feeling by both agency staff and the National Council on the Humanities that the dissemination of humanistic knowledge among the general public had been seriously neglected by public and private agencies contributing to the support of the humanities. The public program still requires much larger support before it can perform its task of reaching all the people, and the present budget request proposes additional funding for it. However, the increasingly desperate plight of universities, scholarly publications, research libraries, museums, historical societies and other cultural institutions of the nation have led the National Council to urge that Endowment programs serving these sectors receive greater attention in the coming year, both to assure that essential educational reform and humanistic scholarship continue and to secure the basis on which strong public programs can continue to develop in the future. In this regard it should be noted that Endowment programs, although individually justified and discretely administered, have a complementing, unifying purpose, i.e. the provision of humanistic knowledge to the American citizenry, thus:

-- the Endowment's Research Grants Program concerns itself with the production of knowledge;

-- the Fellowship Programs assist the development of human resources responsible for the discovery and transmission of knowledge;

-- the Education Programs enable the transmission of knowledge from generation to generation through institutions and programs of formal education; and

-- the Public Programs draw from these in mounting efforts intended to increase the use of humanistic knowledge by the adult public.

The proportion of the budget allocated to each of the four major program areas will remain next year close to present levels. The public sector will continue to be the Endowment's major program area -- especially when one looks beyond program titles to the specific activities funded, for each of the "non-Public" divisions of NEH has one or more program elements directed at the non-academic, non-scholarly part of the population. When the individual program elements are categorized by purpose, the distribution, as shown below, reveals that close to half of all definite funds are used to advance understanding and use of the humanities among the adult public, while over three-fourths go for broad dissemination, whether aimed at the public or at young Americans in educational institutions.

Percentage Distribution of NEH Definite Funding

Purpose	1973 Actual	1974 Actual	1975 Estimate	1976 Requested
Dissemination	71	77	82	80
(Public understanding)	(37)	(40)	(52)	(49)
(Formal education and faculty development)	(34)	(37)	(30)	(31)
Production	29	23	18	20
	100	100	100	100

As the above table shows, the Endowment -- even while forced by economic considerations to direct an increased proportion of new funds this year to students, teachers, and scholars -- still regards the general public as its principal constituent.

2. Priority Areas. As stated in last year's budget request, and indicated in the various sections of the present request, the Endowment is increasingly focusing a large proportion of its support upon carefully determined priority areas. As a national foundation created to respond primarily to the initiatives of a very broad constituency, NEH cannot set off on its own course; nevertheless it does have a responsibility to evaluate its operating experiences and to identify national needs, and then to bring these to the attention of appropriate institutions which can take effective action. The budget request reflects the following kinds of priorities:

-- State-based programs this year will be directed to Bicentennial-related programming.

-- Media programs will undertake exploration in radio, cable television, and Spanish language programs.

-- The bulk of experimental program development is focusing on several distinct activities rather than unsolicited applications.

-- Clear priorities have been identified in the education project programs.

-- Humanities institutes are being created, under agency guidance, to develop interdisciplinary college courses.

-- A new education consultants program is proposed to help guide colleges (especially poorer, weaker ones) toward more effective endeavors.

-- Fellowship programs now direct the greater proportion of support (in 1976: 70 percent) to guided study rather than to individual one-person projects which formerly claimed most of the available funding.

-- As described in the budget, the various research grants programs will either have established priority areas next year or have launched surveys to determine the most pressing problems to which the various humanistic disciplines should attend.

All of these changes will help assure that the limited funds available from the public treasury for humanistic work will be used to make the greatest impact on the areas of greatest needs.

3. Bicentennial. In keeping with the major role assigned to the Endowment by the Domestic Council, a large proportion of funding is being allocated to activities suitable for promoting a thoughtful commemoration of the nation's two-hundredth anniversary. Previous budgets have detailed these plans. Briefly, the agency during this past year granted over $11 million (exclusive of State-based programs) to Bicentennial work. In the present year about $23 million will go to Bicentennial-related projects: the State-based programs will direct all funds to this area ($13.5 million); additional funding of $12 million will support media efforts ($2.5 million), museum staff training and exhibitions ($1 million), national humanities series ($1.0 million), "Great Issues" discussion programs ($1.5 million), educational curriculum development in schools and colleges ($1 million), research projects ($1.5 million), editing of great American writers and statesmen's papers ($1 million), international conferences ($1 million), Bicentennial history program ($825,000), "Course by Newspaper" ($500,000), and Bicentennial Youth Debate ($350,000). An additional $8 million originally foreseen for these and other activities which can bear late starting dates may be granted next summer, depending on the FY 1976 appropriation.

In FY 1976 up to $24 million is projected, primarily through State-based programs which will continue, in their regrants, to give priority to Bicentennial projects until late in FY 1976. In addition, several special programs -- Bicentennial histories, international conferences, Bicentennial Youth Debate -- will have their final year in FY 1976 and require $1.2 million. Some program areas -- e.g. research, editing grants, state and local history, and museum exhibition grants -- which characteristically have provided large funding for projects dealing with American history and culture will continue to make grants for this purpose in 1976 (and indeed beyond) and the budget contains $5 million for these. Education programs have barely begun to aid schools and colleges in upgrading their instructional programs in American studies, and about $3 million will be devoted to that task. Production of several television programs being scripted in FY 1975 is also planned to get underway in early FY 1976 in order to be ready by the summer; these will require up to $2 million. Finally, about $1 million out of public program development and general planning funds will be expended on special projects in support of the American Issues Forum.

The Endowment's interest in the Bicentennial has not been a new or recent development. The basic mission of the agency has been to aid, as stated in the NFAH Act, "a better understanding of the past, a better analysis of the present, and a better view of the future" of American society. The Bicentennial period has offered the Endowment an opportunity to make known and appreciated by millions that their Federal government considered the national heritage important enough to provide aid for its exploration. To a great extent, the true needs for research on, education in, and dissemination of material about the nation's past and possible futures have only now begun to surface as Americans in every locality begin to inquire about the roots and development of their local as well as national institutions. Rather than climaxing in 1976, this interest (if NEH applications are any indication) can be expected to grow. Mindful of its legislative mandate the Endowment will encourage this momentum in FY 1976 and beyond.

4. Major Increases

a. Public programs. The largest part of the increase sought for FY 1976 would be for the State-based programs, which, by congressional direction, receive a minimum of 20 percent of definite funds. Other areas of the Endowment's public-oriented efforts -- principally museums, cultural institutions, and fellowship programs for non-academic professionals -- are also marked for slightly increased support.

b. Research centers. Particularly hard hit by inflation and rising costs, many of the nation's great research centers are struggling to survive and to perform the services crucial to humanistic scholarship in the United States. Most of these centers are privately endowed, with little access to state or local government funds. Possessing unique collections, they constitute national resources in the humanities, serving teachers and scholars from institutions and organizations across the country. Like the New York Public Library several years ago, before the NEH challenge grants helped it broaden its base of support, many of these centers will have to curtail their services unless additional outside support is made available. In recognition of their national importance the budget request proposes a major increase on their behalf, containing $1.6 million in definite funds for specific projects; additionally gifts and matching challenge grants (drawing on the New York Public Library model) will be offered to help these institutions attract money from new sources.

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Public programs and research centers account for about half of the increases proposed for next year. The other half results from increases sought to respond at a more reasonable rate to the excellent proposals in editing and fellowship programs.

PUBLIC PROGRAMS

(Definite Appropriation)

Activities	1974 Actual	1975 Estimate	1976 Request	Increase or Decrease (-)
State-based	$7,568,571	$13,500,000	$15,100,000	$1,600,000
Media grants	3,427,949	6,000,000	6,000,000	-0-
Museum & historical society program	2,808,891	4,500,000	5,000,000	500,000
Program development	2,528,586	4,100,000	4,100,000	-0-
Total	$16,333,997*	$28,100,000	$30,200,000	$2,100,000

* plus $2,726,498 in gifts and matching funds

The Endowment attempts to serve the American people in all its grant programs. Its support for advances on the frontiers of education and scholarship in the humanities promotes the public interest by sustaining institutions and individuals dedicated to probing the values, traditions, and ideas that form the substance of our history, philosophy, and literature. Through the Division of Public Programs, the Endowment supports a variety of initiatives designed to make the humanities directly accessible to the broad adult public not engaged in formal academic pursuits. The Endowment is attempting to translate disciplines that have enriched the lives of many Americans into forms that can enrich the lives of all Americans.

The programs designed for the adult public are united by a common theme -- the continued integration of the humanities into the nation's collective imagination and its public discourse. Through public program grants to a wide variety of institutions, the Endowment has helped to generate an increasing interest in the central intellectual and moral traditions of American society among millions of the nation's adult citizens. There is implicit social value in this venture, for the humanities provide neutral ground for exploring the current conditions of public and private life; they provide the depth and context that must inform the examination of our national problems and purposes; they help to create a common ground of values upon which Americans of diverse backgrounds and competing points of view can unite to probe the development of their own lives as well as the life of our society.

It is upon the conviction that the humanities are important means by which the history, culture and values of our society can be understood that the Endowment has promoted programs which involve thousands of educational, cultural and civic organizations, public television and radio broadcast networks, museums and historical societies, public libraries, and professional associations. Through specially-formed groups acting as regrant agencies in each state, humanistic perspectives have provided the public with new points of

departure for understanding the context of public policy issues at the state and local level. Museums and historical societies, those repositories of the artifacts and objects of material culture, are assisted to display their collections in interpretive and coherent ways for the visiting public. Electronic media organizations, using the most effective instrument with which to reach mass audiences, are assisted to mount high quality visual programming in the humanities. And through specially-initiated experimental grants, wider availability of the humanities is promoted for urban areas, for state-wide and regional library systems, and for national associations.

1. State-based Programs

FY 1975 $13,500,000; FY 1976 $15,100,000; increase $1,600,000

With the encouragement of the Congress, the Endowment undertook in FY 1971 to develop a state-based program for informal adult education in the humanities. It has grown from six states in FY 1971 to 50 states and five jurisdictions in FY 1975 and is an essential link in a Federal-state-local network. The program's central purpose is to increase the quality, extent, and effect of statewide programs in the humanities through establishing ongoing, useful relationships between scholars in the humanities and the general, out-of-school public -- designing an effective partnership with the education, civic, labor, and business leadership in the states. A state humanities committee funds projects which bring scholars in the humanities together with the adult public in shared examination of public policy issues, thereby enriching the quality of public discussion by objectively raising questions of context, perspective, and value. Experience to date suggests that a large public is interested in relating the problems they face to some larger issues of value and meaning which the humanities have characteristically emphasized, and the expansion of state-wide programs in the humanities is essential for genuine national impact. State committees have reported a gross audience over three years of programming of 10.1 million adults (of the potential audience of 130 million adults not enrolled in formal educational institutions). A considerable increase in involvement is anticipated in FY 1976 due to the growing public awareness of state committees and their programs.

For FY 1975, the budget allocation of $13,500,000 will permit an average funding level per state of slightly higher than $245,000, although it is anticipated that state committees in their third and fourth year of programming will require larger grant sizes. Each state committee should thus be able to fund approximately 50 local and statewide projects at an average grant size of $4,100. In FY 1975 the state-based program's total national impact will amount to 2,750 projects, involving 18,000 scholars in the humanities, reaching an audience of 21.7 million people directly and through various media. Such funding levels would reach 16 percent of the adult public.

For FY 1976, the request of $15,100,000 for the state-based program would permit an average funding level per state of approximately $274,000 for 55 states and territories with slightly above-average awards for the more populous states. Each state humanities committee should be able to support 55 local and state-wide projects at an average grant size of $4,300. Based on the 1973-74 pattern, the total impact nationally would amount to 3,100 local projects, involving

21,700 scholars in the humanities, reaching an adult audience of 32 million people. These projects would include as sponsors 935 colleges and universities, 935 civic and community organizations, 330 museums, libraries and historical societies, 165 educational radio and television stations, 110 religious associations, and 275 miscellaneous sponsors. Such funding levels would reach 25 percent of the

Each state humanities committee must raise local funds to match on a one-to-one basis NEH's monies to date, this provision has generated more than $13 million in local funds and services for humanities projects. This amounts to an overmatch of approximately 3 million in dollars and administrative support. Projecting into FY 1976, the state-based programs should generate an additional $15 million minimally in local funds and services to match Endowment allocations. In addition, it is anticipated, based on past performance, that state humanities committees will raise $500,000 in gifts under the Endowment's gifts and matching provision, and will have donated to them approximately $500,000 for administrative support. Thus, by FY 1976, the state committees are expected to be generating $16 million in local funds, gifts and services.

Examples of state-based programs

(i) When the Texas program had completed its first year of funded activity in October 1974, approximately 150 humanists had engaged in discussions with adults in 61 communities on a variety of issues regarding government and the individual.

--In one project, sponsored in Lubbock, a series of four lecture-discussions was designed to compare fifth-century Athenian democracy with the structure and practice of contemporary politics. The series drew an average audience of 200 from the community as citizens and humanists discussed such topics as the role of political debate, the relationships of community groups and the government, and the nature of democratic and representative governments -- in Athens and in modern society. The series was widely publicized and covered by area newspapers and broadcast media.

--In six public conferences in Forth Worth, humanists, city leaders, and the public examined the historical background of city government, the changing character of its charters, and the evolution of attitudes governing citizen participation in municipal government. Scholars in history, philosophy, language and literature from four Texas universities led the discussions.

--Scholars from jurisprudence, philosophy, and cultural geography met with landowners, scientists, recreation officials, and state leaders to explore the context of the topic, "Property Rights and Individual Rights: Problems of Public Rivers and Streambeds." About 100 participants examined with the humanists differing historical and cultural attitudes toward land and water use, environmental ethics, and the human implications of legislative alternatives.

(ii) During the Ohio program's second year of grant-making, which concluded in August 1974, some 280 humanists had participated in discussions in 75 Ohio communities on the complex topics of law, justice, and public opinion.

--Professors of English literature, philosophy, and jurisprudence joined with prominent Ohio citizens for a week-long seminar sponsored by Ohio University to discuss issues related to crime and punishment.

--A farm bureau, a college, and a chapter of the League of Women Voters co-sponsored a two-day conference on land use. The conference drew upon humanists in the disciplines of social history, classics, and jurisprudence to provide an analysis of past land use policies and their effect upon human values.

2. Media Program

FY 1975 $6,000,000; FY 1976 $6,000,000; no increase

Television is the primary source of information for the vast majority of Americans and more than 40 million Americans currently watch television 35 hours or more per week. However, programs focusing on the humanities, or humanities-oriented features, during any television season are limited to only a very few hours. Thus, the public interest in humanities programming remains unfulfilled. The Endowment's media grants are aimed at bringing to national adult audiences an enriched understanding of the humanities and an appreciation of the historical and cultural heritage of the United States. This is achieved through support for (1) the production or acquisition of nationally usable, high quality radio and television programming, and (2) the strengthening of humanities-oriented production capability in the United States by encouraging humanities scholars to combine their talents and resources with professional writers, producers, directors and technicians in the media.

As the national agency charged with supporting broad public appreciation of this nation's history, traditions and culture, and in view of the high cost of quality programming in the media, the Endowment views the media program as a major agency priority. The Endowment intends not only to strengthen and sustain its ability to fund projects, but also to make these projects available to substantial portions of the population who have not heretofore had access to them, such as the large Spanish-speaking population throughout the nation.

Past Endowment grantees have been primarily non-profit organizations and institutions, with the bulk coming from public television stations. The media program's constituency includes 246 public television outlets operated by 152 licensees, whose potential audience is 76 percent of the public, or 167 million Americans. Research studies indicate that the average public broadcast viewing audience comprises 40-45 million persons weekly. Moreover, there are 156 public radio stations operated by 140 licensees, with a potential audience of 64 percent of the population, or 130 million people with listener estimates averaging five million per week. In addition, the media program has in the past and anticipates for the future applications from 40-50 independent film, television, and radio producers.

Past emphasis in the media program has been upon major productions in the areas of American history and literature (e.g. "The Adams Chronicles"), but through initiatives in FY 1975 and FY 1976, production in film and television will embrace other humanistic areas;

already a number of planning and developmental grants have been made looking to major production grants for programs dealing with aging, death and dying; with rural and urban environments; with Japanese culture and society; and with the concept of freedom and liberty as it relates to our institutions and traditions.

FY 1975 funds are supporting production grants which include biographical series on the Founding Fathers, dramatization of American short stories, and a major documentary on "The American Experience." Acquisition and co-production grants have generated approximately 21 hours of programs such as "War and Peace"; and support for co-operative ventures by American and British broadcast organizations for a four-hour dramatization of Charles Dickens' classic, "Hard Times." Radio grants include funding for a major series on the American Revolution, an examination of science, technology, and human values, and five experimental grants for development of regular radio programming in the humanities.

As the principal focus of its efforts in FY 1976, the Endowment will continue to assist imaginative American scholars and production facilities in developing exemplary television and radio programming in the humanities. The Endowment will consider production support for major Bicentennial-related projects being developed this fiscal year which would result in approximately 30 hours at a cost of up to $5.4 million (90 percent of the FY 1976 request). The scope of total programming allowed by the $6 million requested is as follows:

a. production grants ($4,500,000): four major grants for separate 13-hour series, costing $3 million in direct funds (one-third of the total cost to be assumed through gifts and matching); two grants at an estimated $100,000 apiece for ongoing production work at selected public broadcast stations developing innovative programs; an estimated five production grants averaging $200,000 for single programs or mini-series to explore the experimental use of cable, access to the handicapped, and Spanish language productions; and $300,000 allocated for 12 grants averaging $25,000 for research and development;

b. acquisition and co-production ($1,000,000): two major acquisition grants on the scale of "War and Peace," as well as two major co-production grants for a total of approximately 2 hours of "special" broadcasting time;

c. radio ($500,000): ten grants averaging $50,000 for radio programs in the humanities.

These funding levels and distribution would allow for programming which would reach an average audience of 40 million people, involve forty institutions as primary grantees and provide 140 program hours over public radio and television. It is expected that a total of thirty-seven grants will be made, and it is anticipated that almost the entire population will have access to many of the media program-sponsored projects, via primary distribution in open broadcast on radio and television and by secondary distribution through schools, public libraries, civic groups and other community organizations.

A significant portion of media program grant support has relied on the availability of Treasury funds in the gifts and matching provision of the Endowment. Based on FY 1973 and FY 1974 figures, it

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is estimated that between $3 and $4 million will be drawn in gifts to NEH in FY 1976 to support media projects.

Examples of media program grants

(i) A grant of $250,000 was made to the Center for Understanding Media for the filming of major American short stories, such as Stephen Crane's "Blue Hotel," on location in the United States by distinguished filmmakers such as John Korty and Jan Kadar. Alfred Kazin, an eminent literary critic, is the project consultant, heading an advisory committee of American literary scholars in the development of comprehensive study guides about the stories, the authors, and the historical period about which they wrote. These materials will be provided to secondary schools, colleges, libraries, and other non-theatrical audiences.

(ii) A grant of $252,000 was made to the Educational Broadcasting Corporation for the production of a pilot program for a projected television series on the subject of Liberty. The first program will present a philosophical and historical context for understanding the development of the democratic tradition of liberty -- illustrating changes and restrictions, exploring the philosophy behind the changes, and outlining basic responsibilities and assumptions. Charles Frankel, Professor of Philosophy and Public Affairs at Columbia University, and host of the CBS Series "The World of Ideas," will be writer and host for this program. Working with Professor Frankel, an advisory committee of scholars from the American Academy of Arts and Sciences will be preparing treatments for seven additional programs, closely following the framework provided by the Constitution and the Bill of Rights, including the basic rights of citizens, old and new economic liberties, and the freedom of the mind.

(iii) A grant of $15,000 has been made to the Mississippi Authority for ETV to support the research and development of a script for a ninety-minute documentary film on William Faulkner, the man and the artist. The film will deal with Faulkner's life, with the relationship between the land that he knew and the mythical county that he created in his writings, with the role of the South as he saw it, and with the significance of his work in American literature. Among the Faulkner scholars who are directly involved in the research and writing of the script are Eudora Welty, Pulitzer Prize-winning novelist, and Joseph Blotner, official Faulkner biographer.

3. Museum and Historical Society Program

FY 1975 $4,500,000; FY 1976 $5,000,000; increase $500,000

The 3,681 history museums, 1,457 science museums, 300 natural history museums, and 886 art museums in the United States are institutions where the social and cultural history of mankind is presented to a public audience. However, the financial straits of museums leave these institutions less than fully able to use their collections in the service of the general public, or to explore their potential for providing education to a large audience; and it is to the latter point that the Endowment's program speaks.

Three kinds of coordinated activities are supported: major exhibitions; community education; and personnel training to improve the

interpretive components and the educational quality of exhibitions and other museum activities. In FY 1975 it is anticipated that NEH Museum grants will bring public exhibitions and programs to an estimated four million people. It is expected that staff of 275 museums and historical societies will be involved (through collaboration, traveling exchange, and training programs), and that through all its program emphases over 1,000 museum professionals and volunteers will have been assisted.

At the FY 1976 funding level, it is anticipated that the Museum Program will make a total of 107 grants to bring small and large exhibitions and community programs to an estimated five million people. Further, it is anticipated that over 300 institutions will be engaged in planning and conducting exhibits and programs, through static and traveling components and that through the personnel program over 1,500 museum educators, curators, and volunteers will have been assisted.

The details of each program element are presented below:

a. Major exhibition grants ($3,700,000): these grants serve as national "demonstrations," exemplifying how major museums can effectively reach the public with exhibitions in the humanities. Approximately 100 museums are of major size and contain the significant resources which enable them to mount these large exhibitions that can have national and international impact.

Preparation of an interpretive exhibition of an uniquely humanistic focus engages the talents of museum education specialists and requires the participation of other academic and non-academic resources from outside the museum. Grants are made to support the planning and implementation of interpretive exhibitions, including interpretive exhibitions cooperatively established by two or more museums and suitable for travel to others. Past experience demonstrates that such major exhibitions have served to stimulate better planning of exhibits across the country, and a major thrust in the program is to stimulate major museums to design and create readily transportable interpretive exhibitions and related programs for use in the smaller museums.

FY 1975 funding of $3,500,000 is supporting 14 major exhibitions averaging $200,000 apiece, 15 grants at $20,000 for the planning of such exhibitions (subsequently to be considered for full funding by the Endowment), and 10 grants averaging $40,000 apiece to develop traveling components of major exhibitions.

The FY 1976 request of $3.7 million will support 15 major interpretive exhibitions averaging $200,000 apiece, 15 planning grants for major exhibitions at $20,000 each, and 10 grants to develop traveling components averaging $40,000.

b. Community education ($700,000): the nation's many smaller museums often lack the physical and staff resources to mount major exhibitions, but exist as resources for the education of the general public in the community. The Endowment, moreover, recognizes the importance of the nation's thousands of historical societies which have unique facilities, collections and archives that generally have not been made accessible in public educational programs. Endowment grants support the development of exhibitions based on existing

smaller collections, and encourage multiple-faceted programs which use formats such as seminars, film series, audio-visual techniques, orientation galleries, and other outreach programs.

In FY 1975 approximately 30 community education grants to smaller museums and historical societies will be made at an average cost of $20,000. At the request level for FY 1976 ($700,000), approximately 35 projects can be funded.

c. Museum personnel grants ($600,000): this area is designed to assist museum and historical society personnel to refine their capacity to mount educational programs, and to help them better use the humanities in the development of interpretive exhibitions and related programs. Accordingly, the Endowment has developed several different approaches to personnel development in museums and historical societies that are designed to help those institutions integrate the humanities into their activities: (1) fellowships and internships for a limited number of people preparing for museum careers; (2) seminars and institutes for the in-service training of established museum and historical society staff; people in museum careers without prior experience in the humanities; (3) workshops for volunteers; (4) workshops for professionals, designed to plan interpretive exhibitions specifically related to the American experience and culture; and (5) development of international exchange programs for museum educators and curators, to identify program techniques and collections which may be usefully employed and mutually exchanged.

In FY 1975, the Endowment will fund 13 fellowships and interns, sustain seminars and institutes for in-service training of museum staff at a cost of $100,000, support workshop training for volunteers at a cost of $87,000, and provide support for workshops for professionals focusing on developing exhibitions oriented to the American experience at a level of $100,000.

At the FY 1976 request level ($600,000), there will be support for ten fellowships and interns ($90,000), seminars and institutes for in-service training of museum staff ($150,000), workshops for volunteers ($85,000), five short-term workshops for professional museum educators ($75,000), and the development of an international exchange for museum personnel ($200,000).

Examples of museum program grants

(i) The Hansen Planetarium in Salt Lake City, Utah, recently received a grant of $25,642 for "A Star Program on American-Indian Astronomy and Mythology." Anthropologists, art historians, and other students of American-Indian life are joining with planetarium staff to demonstrate the historical, religious, and philosophical context that informed this central feature of Native American thought. The presentation will focus upon the astronomical knowledge and literature of American Indians, and will illustrate fundamental values that characterized their conception of nature. Two hundred separate pieces of art work, selected through careful research, will recreate the skies as seen by Indians, and will probe the juncture between the physical environment and the intellectual life of Native American culture. Two explanatory tapes, one designed especially for children, will be narrated by professional actors for use in the presentation.

(ii) In mid-April, 1975, the "Exhibition of Archaeological Finds of the People's Republic of China" will open at the William Rockwell Nelson Gallery of Art and Mary Atkins Museum of Fine Arts in Kansas City, Missouri. The exhibition, supported by an Endowment grant of $197,401, is designed to demonstrate the way in which these monuments of Chinese material culture can serve as devices for exploring the larger social context in which they emerged. The installation of the show will be reinforced by a variety of interpretive materials, which include a workbook designed for adult viewers, audio-visual presentations on the significance of the objects within the development of Chinese society, a descriptive catalogue, a brief guidebook to describe highlights of the exhibition, lectures, films, and guided tours. The objects delineate the evolution of Chinese culture from paleolithic times to the fourteenth century A.D. They are the pro ucts of recent archaeological work, and educational materials also illustrate current examples of Chinese archaeology.

The Kansas City exhibition has generated widespread interest, and there will be a number of activities for local groups throughout the Midwest, Southwest, Rocky Mountain, and Pacific Coast states. A number of cities have planned tours to the Gallery; others have organized community education efforts, including newspaper articles, film series, lecture series, and mini-courses, that will take place concurrently with the exhibition. The anticipated audience for the exhibition and these related activities is well over one million people.

4. Program Development

FY 1975 $4,100,000; FY 1976 $4,100,000; no increase

Program Development is the area where the Endowment tests new activities which relate the humanities to the general adult public. There are four major areas in which grants are concentrated:

a. Projects in and through libraries. In this area grants are made which seek to test the utility of libraries as sites for public programs in the humanities, to increase library readership in the area of the humanities, and to encourage libraries to work collaboratively with other institutions in the mounting of humanities programs.

b. Projects providing access to the humanities through national organizations. In this area, the program makes grants to organizations such as the League of Women Voters, or professional humanities associations such as the Modern Language Association, using the special interests, resources, and skills of such organizations to develop national public humanities programs.

c. Projects focusing on the availability of the humanities in major urban areas. Building on the experience of FY 1974, in which the program made grants in a limited number of urban areas for design of public humanities programs, program development will continue, through FY 1975 and FY 1976, to make grants which experiment with techniques to reach urban populations.

d. "Special Projects" attempting to stimulate experimental projects of the highest quality. The Endowment responds to a range of institutions as diverse as universities and historical societies, educational television stations, civic groups and adult education councils to test and evaluate untried public humanities activities.

For FY 1975, major priorities for program development funds ($4,100,000) include projects in major areas that will be keyed to the Endowment-sponsored "American Issues Forum" ($1,250,000); five grants to library systems ($750,000); three grants to national organizations ($600,000); ten experimental grants ($500,000); and terminal grants for three program development centers ($1,000,000). Through normal cost-sharing requirements and the availability of gifts-and-matching funds, it is estimated that $1.5 million of non-Federal funds will be generated during FY 1975 by the requested Federal amount.

For the FY 1976 requested level ($4,100,000), program development will allocate $1.5 million to Bicentennial-related projects, or slightly over 25 percent of total funds. Grants are anticipated through (a) programs in and through libraries, ($1,200,000): major grants to regional consortia, library systems and associations averaging $200,000, (b) programs in the humanities through national organizations ($900,000): at least three major grants averaging $300,000; (c) projects focusing on urban availability of the humanities ($1,500,000): five grants for major urban public humanities programs, averaging $250,000, and ten pilot grants averaging $25,000 to plan humanities programs for smaller urban communities; and (d) "special projects": ten grants to various institutions, groups and organizations aimed at experimentation and innovation in public humanities programs averaging $50,000 apiece. These 34 grants will cumulatively reach approximately 9,000,000 people directly or indirectly through media, and involve 1,300 academic humanists, over 150 institutions of higher learning both centrally and peripherally, 500 community groups and neighborhood associations, and at least eight regional or national professional associations.

Examples of program development grants

(i) In May, 1974, the Endowment awarded a grant to the Southwestern Library Association for the development of a project emphasizing the role libraries can play in humanities programming. The theme that unites the efforts of this regional project is the diversity of the Southwest's multi-cultural heritage. The project focuses upon history, modernization, and the role of ethnicity in varied conceptions of law, natural resources, family life, and the nature of the individual in a transitional society. While in the past the Endowment has made grants for public humanities programs conducted by large, urban libraries, this is the first time a project is designed to reach a vast geographical region (Arkansas, Arizona, Louisiana, New Mexico, Oklahoma, and Texas)--and a primarily rural population. The planning group includes directors of the state library systems in the six states, prominent members of the academic community, and representatives of the public. The project will not only test the efficacy of regional library systems to conduct humanities programs, but will also test the ability of libraries to work cooperatively with other community institutions, such as local ETV networks and community colleges, in a joint effort to mount public humanities programs.

(ii) A recent planning grant was awarded to the AFL/CIO Labor Studies Center, located in Silver Spring, Maryland. Presently, the Labor Studies Center, a non-profit educational institution for union staff and officials, undertakes programs to develop trade union leadership, buttress technical skills, and provide for a University-Without-Walls college credit program in cooperation with Antioch College. The

Center serves over 2,500 union staff members from 154 affiliated unions and center bodies. The program development grant will enable Center staff to consult with scholars in the humanities to establish humanities components and programs at the Center, to engage residents of neighboring communities in Center-sponsored humanities programs, and to develop humanities extension programs and exhibits that can be packaged and made available to local unions nation-wide. Topic areas to be explored include: The Worker's Image in Literature; Leisure and the Use of Leisure Time; Origins of the Work Ethic; and The Impact of Technology on Human Values. The Center plans to complement existing programs by using humanistic resources and teachers available in the Washington, D.C. area, developing new humanities programs to be offered area residents in the evenings, planning and development of a humanities archives in labor history, and the creation of special exhibits about labor history and blue-collar life in America.

EDUCATION PROGRAMS

(Definite Appropriation)

Activities	FY 1974 Actual	FY 1975 Estimated	FY 1976 Request	Increase or Decrease (-)
1.Institutional grants	$8,689,961	$7,800,000	$7,800,000	$-0-
a.Planning	(717,046)	(1,000,000)	(1,000,000)	(-0-)
b.Program	(4,825,137)	(4,400,000)	(3,600,000)	(-800,000)
c.Development	(3,147,778)	(2,400,000)	(3,200,000)	(800,000)
2.Projects	3,893,083	5,050,000	5,050,000	-0-
a.Higher education	(2,083,095)	(2,850,000)	(2,850,000)	(-0-)
b.Elementary & secondary	(1,809,988)	(2,200,000)	(2,200,000)	(-0-)
3.Humanities institutes	2,759,223	2,200,000	3,000,000	800,000
4.Cultural institutions	- -	750,000	900,000	150,000
5.Consultant grants	- -	(1/)	300,000	300,000
Total	15,342,267*	15,800,000	17,050,000	1,250,000

* Plus $1,741,075 in gifts and matching funds.

1/ This program is being initiated in FY 1975 and it is anticipated that some grants will be made with funds allocated from other Education Program activities.

The Endowment assists educational institutions at all levels to improve instruction and make more effective use of resources in the humanities. Funding is offered to support programs of organized study in the humanities-- programs of long or short duration which will help develop or strengthen humanistic education within an institution, discover or sustain relationships among different humanistic disciplines or subjects, and otherwise encourage humanistic pursuits which will be worthy in themselves and will enhance the life of the humanities and the institutions which house them.

The past fiscal year has seen a dramatic increase in both the quantity and quality of education applications: in FY 1973 NEH received 462 applications requesting a total of $47,866,507; in FY 1974 the number rose to 596 requesting $65,970,822 --an increase of approximately 30 percent in one year. The universe addressed by NEH education programs currently contains 2,738 eligible institutions of higher education alone. In the three Institutional Grants categories described below the Endowment had awarded, by the end of FY 1974, a total of 166 grants -- a very small fraction indeed of the audience NEH is mandated to serve. Because of limited funds, in fiscal years 1975 and 1976, the Endowment plans to maintain most Education programs at existing levels. The one new program element, the Consultant Grants program, is being initiated as a service to upgrade the ability of institutions to plan for their future. It offers the services of experienced humanists for on-site visits and discussions of a particular institution's needs.

1. Institutional Grants

Institutional Grants are designed to support curricular developments in the humanities which go beyond the limitations of a single discipline or a single course. The principal target is the undergraduate student, whether at the two- or four-year institution, but graduate students and students in professional schools (medicine, law, and engineering) have also been served. The programs supported by three types of grants-- planning, program and development-- are, in a real sense, seminal. It is anticipated that the curriculum will continue to improve and develop after Federal funding ends whether or not there is a second application for NEH support (as there frequently is following a planning grant). Indeed, in the case of program and development grants, a prerequisite is the institutional commitment to continuation of the program after Federal funding ends.

a. Planning grants ($1,000,000)

FY 1975 $1,000,000; FY 1976 $1,000,000; no increase

A planning grant enables an institution which has developed a tentative but concrete plan addressed to curricular needs in the humanities to test that curriculum on a pilot basis and to evaluate the pilot activity toward necessary revision, refinements, and further development, enabling an institution to test the viability of a proposed curriculum before making a heavy commitment to it in terms of staffing and allocation of institutional resources. The planning experience is sometimes the preliminary stage in an institution's progress into the program or development categories of funding (see below), but it should be stressed that a planning grant is not considered simply as support for the preparation of a subsequent proposal. The accomplishments made possible by the award of a

planning grant are valuable in themselves; many planning periods are successful in securing the redirection of an institution's own resources in such a way as to preclude the need for further support.

Planning grant funds secure for the most part released time (regular full-time faculty are released from certain of their normal responsibilities to engage in grant activities while their regular duties are carried out by replacements) -- an expense few institutions can presently afford. Without these funds, most institutions cannot go beyond departmental budgets to engage in such periodic planning: the humanities curriculum stagnates and its influence can diminish rapidly. On the average, each grant involves 10 faculty who teach about 2,000 students.

The maximum planning grant has been $30,000 for several years now and will continue at that level in FY 76. In FY 75 it is anticipated that 190 applications will be submitted in this catagory.

In FY 1976 it is estimated that 35 grants will be awarded in this category; cost-sharing will generate at least $200,000 in institutional contributions. The programs funded will involve the participation of 420 faculty members, and will affect an estimated 70,000 students.

Examples of planning grants

(i) From a study made last year, the administration of Creighton University, Omaha, Nebraska, became convinced that the humanities program in the health sciences was inadequate in scope, that new methods of presentation were required and that pre-professional students should have their curriculum enriched with courses that treat human values in health issues. A planning grant will allow seven humanities faculty members to do research in specific topics related to medicine and human values; this will result in joint meetings of the health science students, panel discussions, symposia, and an institute on these topics. In the following fall, the faculty will offer seminars to the undergraduates and continue to participate in joint meetings. This program, which promises to be a model for other institutions concentrating on pre-professional studies, will affect students from Medicine, Dentistry, Pharmacy, and Nursing.

(ii) At Boise State College, Idaho, where funding priorities favor career training in the schools of business and education, humanities courses are restricted to the most traditional offerings. A Planning grant will allow nine humanities faculty members to offer Freedom and Authority in America: 1776-1876-1976 as an experiment in the method and effectiveness of interdisciplinary planning and presentation. This major effort will integrate the disciplines of history, literature, sociology, philosophy, art and music and will investigate the primary sources of our beginnings as a nation, discover the manifestations of these original values and attitudes in 1876, and evaluate the previous concepts in comparison with those of contemporary society.

b. Program grants ($3,600,000)

FY 1975 $4,400,000; FY 1976 $3,600,000; decrease $800,000

A humanities program to which support is offered is defined as a group of related courses or an ordered program of studies in the humanities, focusing upon a particular area of study. For example, a program grant might address a specific region, culture, or historical era, or it might reform humanities instruction on a particular level of the curriculum -- freshman year studies or general education. A program grant is distinguished from a development grant (see below) by the scope of its proposed activity: a program grant addresses itself to one single aspect of the institution's total humanities curriculum. Support has previously been limited to $180,000 over a 3-year period; with cost-sharing increasing during the grant period from at least 20 percent of total program costs in the first year to over 50 percent in the final year. This enables the institution to assume total costs more readily when funding ends; such commitment to continuation of the program is an essential part of a successful application.

This is the only Education program where the number of final applications has decreased in FY 1975; this decrease is due to more effective "screening-out" of weaker applications prior to the deadline, and an insistence on improved quality in the programs funded. More applicants are now being advised by staff to try in the Planning Grant category first.

FY 1976 will be the fourth year since the $180,000 ceiling was set. Because of inflation during this period and the special needs of particular programs, this maximum will be raised to $200,000 in outright funds, with the possibility of an additional $100,000 in G&M funds. Thus in FY 1976 it is estimated that 20 program grants could be awarded, entailing also up to $1,000,000 in gifts and matching funds. Each program grant awarded affects an average of 15 faculty and 3,000 students; thus in FY 1976, 300 faculty and 60,000 students will be affected.

Examples of program grants

(i) A program grant was awarded to Morehouse College in Atlanta, Georgia, to strengthen humanities courses in this predominantly black institution and to develop new courses designed with global areas in mind--the American continent, the European and Asian spheres, Africa and the Middle East--treating the common problems and developments affecting major sectors of the world.

(ii) California State College at Sonoma is using program grant funds to develop an upper-level external degree program with an interdisciplinary humanities major. The program will serve the needs of mature members of the community unable to participate in the daily activities of a college campus and includes both prescribed courses and opportunities for independent research.

c. Development grants ($3,200,000)

FY 1975 $2,400,000; FY 1976 $3,200,000; increase $800,000

The development grant program is the Endowment's single most effective means of encouraging institutions to carry out a comprehensive examination of their humanities programs, with a view towards improving instruction, re-educating faculty members, and making more effective use of all humanities resources, thus affecting the entire institution. Any institution of higher education may submit an application to the Endowment for up to five years of support, in an amount ranging from $100,000 to $200,000 per year. Institutions must provide at least 20 percent of total costs during the first year of the grant, increasing this cost sharing subsequently so that by the final grant year the institution provides the major portion of total funds. Gifts and matching grants are used to fund some part of each approved grant, thereby encouraging private gifts to higher education.

Interested applicants must have conducted a thorough analysis of their institution's strengths and weaknesses in the humanities, and must present a long-range plan that will maximize institutional resources while substantially improving instruction in the humanities. Before preparing a development grant application, an institution generally will have conducted a feasibility study or pilot program to test its plan, with or without the assistance of a planning grant from the Endowment. An application is judged on the thoroughness of the plan; on its suitability to the institution's students, history, faculty and other resources; on the extent to which it promises to have a permanent and far-reaching impact on the teaching of the humanities; and on its potential usefulness as a model for other comparable institutions seeking to strengthen their humanities programs.

The number of applications in the development grant program has more than doubled in the past year. In FY 1974 there were 25 formal applications. Funds were available to award only six grants. This compares with 10 applications and six awards in FY 1973. To date, the Endowment has awarded 33 developemnt grants. By FY 1976 one-third of these grant programs will have been completed.

In FY 1975 the average grant size will be $400,000 from outright funds and $150,000 from gifts and matching funds. At each grantee institution approximately 100 faculty members and 4,000 students will be directly affected. Approximately five or six development grants will be awarded, with a total impact on almost 25,000 faculty and students in six states--only a fraction of the total number of institutions of higher learning in this country that could benefit from such a grant program.

For FY 1976, the average grant size will be $450,000 from outright funds and $200,000 from gifts and matching funds. Again, it is anticipated that each grant will affect some 100 faculty members and 4,000 students. Approximately seven development grants will be awarded, with a total impact on some 30,000 faculty and students.

Examples of development grants

(i) In response to a growing need for contemporary humanities curricula for community college students, City Colleges of Chicago in consortium with two large community colleges in California and

Florida are developing a full-year's interdisciplinary sequence in the humanities. Experienced humanities instructors from the consortium institutions are working with a team of recognized university authorities in developing the instructional units, which make extensive use of audio-visual media. Topics for the core sequence center around the nature of people as they have been shaped by forces in our history and culture, and around the arts and the various values systems as they express people's nature. A potential target population of 200,000 to 250,000 students will benefit from the results of this 2-year development grant.

(ii) A 5-year development grant to the University of Texas Medical Branch is providing significant, perhaps vital, impetus to the continuation and development of an outstanding program in medical humanities. Multidisciplinary teaching programs will help to bridge the fundamental intellectual distances between the concerns of humanist scholars and the concerns of medical scientists and health professionals. Additional faculty will add new perspectives in history, philosophy, religion, jurisprudence, and literature, and attempt to make the school a model for other medical centers of the University and for other Texas institutions.

2. Education Projects

The purpose of this program is to promote the development and testing of new and exemplary approaches to humanities education by supporting demonstration projects of generally modest size, and that can be completed within a specified period of time. This program solicits, particularly, applications for projects that show promise of serving as models for, or of influencing in specific ways, the programs of other institutions. Projects must have national or regional implications.

a. Higher Education Projects ($2,850,000)

FY 1975 $2,850,000; FY 1976 $2,850,000; no increase

Several types of activities characterize higher education project applications: (1) experimental courses or programs, both within single disciplines and interdisciplinary in subject matter, that might otherwise be considered too specialized for a small college to sustain, yet in which there seems to be newly emerging interest at the applicant institution; (2) curriculum materials, including film and TV materials, by which colleges and universities try to reach non-traditional audiences; (3) new efforts by exemplary programs to conduct re-training institutes to make their special strengths available to a wider group of interested students and faculty; and (4) cooperative endeavors between schools and institutions of higher learning, cooperative programs between two-year colleges and universities, and proposals that foster the study of the humanities in the professions.

The Endowment has been supporting a number of higher education projects designed to improve instruction in the fields of American history, literature and politics. During the Bicentennial period, increased funding has been allocated to such projects, especially those that bear on the intellectual background, historic development, and consequences of the American Revolution, and comparative study of the American experience. In FY 1974, approximately 25 percent of all grant funds expended in this category were for projects

related to the Bicentennial.

While the number of applications has not increased dramatically -- largely because many programs that had been included in projects before can now be supported through program grants-- the cost of worthy projects has increased. A higher education project often involves a request for two or three years of funding. Their average size in FY 1974 was $105,000. In the case of an exemplary program that contains several years of outreach activities, the cost of an effective project can be as high as $250,000.

Institutional grantees will continue to contribute a minimum of ten percent of total project costs (with 75 percent of the grantees, however, contributing 20 percent or more). In addition, one-fifth of the project grants are awarded on a gifts-and-matching basis, with the Endowment matching private contributions on a dollar-for-dollar basis.

Priority in FY 1976 will be placed on support of those fields whose survival in undergraduate curriculum has become marginal --like foreign languages and literature. Special attention will also be given in all disciplines to new programs for the training of graduate students in the teaching of their disciplines to undergraduates, especially at community colleges.

The requested funding for FY 1976 will provide project grants to about 25-30 institutions. These, however, are merely the immediate recipients as projects generally reach a significantly larger audience, due to the requirement for inclusion of a feasible plan for dissemination through scholarly or educational publications, films, or lectures.

Examples of higher education projects

(i) Institute on Human Values in Medicine. This organization provides fellowships and consultants and holds conferences to assist medical schools in introducing new humanities programs. Currently reaching one-third of the medical schools in the country, the Institute's work under Endowment auspices has been instrumental in making the nation's medical schools more aware of the need for a humanistic component in the technical preparation of doctors and health professionals.

(ii) The Modern Language Association of America received $172,938 for its project, "Minorities and the Study of Language and Literature." Through a series of activities--summer institutes and seminars attended by 130 faculty members, eight faculty workshops, eight regional conferences and a 3-day symposium--teachers, students, administrators and others will be exposed to models for teaching minority literature. Besides training instructors in at least 130 colleges, it is expected that this project will advance interest in languages and literatures among students from minority groups and develop in the mainstream of literary studies across the country an awareness of literature by and about minorities.

b. Elementary and Secondary Education Projects ($2,200,000)

FY 1975 $2,200,000; FY 1976 $2,200,000; no increase

Several types of activities characterize the projects supported through elementary and secondary projects grants. First, there are projects which combine teacher training with curriculum development; these are often large-scale projects which reflect the need for new or up-dated materials in either traditional or relatively unfamiliar areas of study in the schools. A common design brings together school and university faculty for intensive summer work. During the ensuing academic year or years, the school teachers introduce into their classrooms the new materials and approaches with the continuing supervision and support of the project's staff. Second, there are experimental courses or programs which use either an interdisciplinary or single-discipline approach, and which may involve new areas of study in the schools. Third, the Endowment is especially interested in cooperative endeavors between schools and institutions of higher learning and cultural institutions. All schools or school systems in the country are eligible.

The number of applications has steadily increased while the nature of worthy projects has changed. Projects which promise to be most effective have increased in size and often require several years of funding. In addition, the most promising projects appear to involve a combination of curriculum development and teacher training, support services for the participating teachers, and inter-institutional collaboration (schools, school districts, state departments of education, two- and four-year colleges, universities, teacher centers, schools of education). Although the average size of a grant in FY 1974 was $95,000, the cost of a program which integrates these various elements with careful plans for dissemination and years of impact can be as high as $300,000.

Institutions are required to contribute a minimum of 10 percent of total project costs; 75 percent of the grantees, however, contribute 20 percent or more. In addition, one-fifth of the project grants are awarded on a gifts-and-matching basis, matching private contributions on a dollar-for-dollar basis.

The Endowment has been supporting a number of elementary and secondary projects designed to improve teaching and learning in history and social studies. During the Bicentennial period, increased funding has been allocated to projects which focus on understanding the nature and history of the American experience. In FY 1974, approximately 50 percent of all grant funds expended in this category were for projects related to the Bicentennial. While continuing to give priority to projects aimed at strengthening the study of American history and culture, the program in 1976 will encourage projects which aim to: (1) use the resources of local and cultural institutions, (2) integrate the creative arts with the humanities, and (3) relate literature and social studies.

The increased size and scope of the most promising projects coincides with an increased Endowment commitment to elementary and secondary education upon the urging of the National Council on the Humanities. The requested funding for FY 1976 will aid approximately 20 organizations. These figures represent merely the immediate audience, however, for each project should reach a far wider audience because of the requirement for feasible plans for dissemination through educational or scholarly publications and conferences, lectures, or films.

Examples of elementary and secondary education projects

(i) The State Bar of California received $739,071 specifically to develop for students and teachers, from kindergarten through twelfth grade, curriculum materials based on eight concepts already developed within the "Law In A Free Society" project. The teaching materials will be designed to improve the general field of civic education and related humanities studies, including political and legal philosophy, political theory, law, anthropology, and history. Whole courses can be designed around these materials; or they can be used selectively in parts of already existing courses in other law-related, humanities, and social studies programs throughout the nation. The materials will be used in conjunction with state and nationwide teacher training programs already begun by the "Law In A Free Society" project, and will receive national dissemination through a network of school systems and community and professional organizations.

(ii) Ohio State University received $64,208 for support of a project to improve the understanding and the quality of instruction of the American Revolution. The project will include a 5-week summer seminar for 30 secondary school teachers, a graduate level course entitled "The American Revolution and the New Nation," a series of lectures and discussions given and led by professional historians, workshops in educational methods and materials, one performance each in dance, music, and drama contemporary to the American Revolution, and publication and production of written, audio, and visual materials. The performances will be video-taped and made available to secondary schools through the State Department of Education television network.

3. Humanities Institutes ($3,000,000)

FY 1975 $2,200,000; FY 1976 $3,000,000; increase $800,000

In 1974 the Endowment launched a major new program with the establishment of the first National Humanities Institute. Originating in a widely expressed need for superior interdisciplinary instruction and curriculum design in the humanities, the institutes program is designed to provide opportunities for established and promising scholars and teachers together to achieve the necessary expertise to create new courses outside the pattern of disciplinary education. By enabling scholars in various disciplines to devote a year of their time to intensive study, discussion and curriculum materials development and testing, the Endowment hopes to underwrite and encourage a serious nationwide re-evaluation of teaching in the humanities.

The institutes are to be established at major universities across the country and are funded each for a period of 4 years; their role is to engage the attention of teachers in a significant theme common to several fields of study and appropriate to interdisciplinary treatment --a body of subject matter valuable both in its own right and as a vehicle for the transmittal of humanistic learning. Junior and senior scholars selected in open competition from different types of institutions around the country join in seminars, collect curriculum materials and test new courses in the host institution and in neighboring colleges. Upon their return to their home institutions the participants administer NEH demonstration grants in the amount of $20,000 to create exemplary interdisciplinary courses to be incorporated into the regular curricula. When the Humanities Institutes

program is fully operational, 320 faculty members from colleges and universities of all types, with an ultimate audience of close to 50,000 students, will have benefited from it.

In the current fiscal year, the Humanities Institutes program changes from an experimental to a regular activity of NEH. Panelists will be assembled to consider applications and to recommend support of one applicant institution from a region and in a subject different from that of the Institute established in 1974. Funds committed in FY 1975 permit the establishment of this Institute as well as providing small grants for the late stages of planning. By the end of FY 1975, with the existence of two Humanities Institutes, the program will be well under way.

The FY 1976 request will permit the establishment of one new Humanities Institute. In addition, it will support 10 demonstration grants, to be awarded to junior fellows at the conclusion of their year in residence at the Humanities Institute established in 1974. Endowment support of each Institute will cover the salaries of a small permanent staff, stipends for participating Fellows, library materials, supplies, travel, indirect costs, and consultants.

Example of a National Humanities Institute

The first Institute, devoted to the subject "The Humanities and the National Life," has been established in New Haven, Connecticut at Yale University. After a planning year (1974-75), the Institute, established by a direct grant of $2.7 million, will embark on a 3-year program to assess and enrich teaching in American Studies. Ten junior and ten senior fellows, representing 20 two-year and four-year institutions of higher learning in all regions of the country, will collaborate during each of the 3 years. In addition to creating new courses, each fellow will produce a videotaped lecture for public television. The number of students affected by the Institute's activities during the training year and in the demonstration year at the fellows' home institutions should reach 1,000 for each year of the Institute's operation. It is expected that indirect benefits from the Institute will extend to the great majority of American Studies teachers in the country who will use the materials produced by the Institute.

4. Cultural Institutions Program ($900,000)

FY 1975 $750,000; FY 1976 $900,000; increase $150,000

The Cultural Institutions Program is an experimental program to help libraries, museums, and other cultural institutions become centers of formal education for their communities. Cultural institutions are easily accessible to, and their distinctive resources are available to, all persons in their communities. And cultural institutions always have been educational institutions in the sense that they always have offered some discrete educational events and services. Yet, cultural institutions almost never have been centers of formal education for their communities. Now, however, cultural institutions are showing an interest in becoming such centers and, since they must devote almost all the funds they receive from state and local sources to their basic operations, they are turning to the Federal Government for help.

In FY 1975, the Cultural Institutions Program is helping a small number of major libraries and museums throughout the country to develop and offer distinctive educational programs--NEH Learning Library and Learning Museum Programs. A NEH Learning Library or Learning Museum Program is an educational program that lasts at least 3 years, that may or may not offer academic credit, and that is aimed at a diverse audience of prospective learners and present and former students. The program is organized each year by a theme that is related to the collections of the library or museum, the geographical area in which the library or museum is located, or any intellectual interest that persons develop as they go about their lives and that may be pursued systematically with the aid of the humanities. Each year's theme is treated in several extended group learning activities--sequences of lectures, discussion meetings, film showings, interpretive performances, and so on--and individual study guidance sessions.

In FY 1975, the Cultural Institutions Program will support three NEH Learning Library and Learning Museum Programs. (Three 3-year programs at $250,000 each. Total: $750,000.) Since the Cultural Institutions Program will remain a small, experimental program in FY 1976, it will support only three additional NEH Learning Library and Learning Museum Programs (Three 3-year programs at $300,000 each. Total: $900,000.)

5. Consultant Grants ($300,000)

FY 1975 --; FY 1976 $300,000; increase $300,000

A National Board of Consultants is being established by the Endowment as a service to institutions of higher education who need advice on how to build successful humanities programs. The Consultants are Education Program panelists who represent a wide range of experience, interests, and institutional backgrounds.

The Consultants Grants program, unlike other Education programs, is not aimed at institutions which have already completed most of the planning of humanities curricula; rather it is intended for institutions which are in the early stages of planning new programs or are in the process of reconsidering existing curricula, and may wish to seek the advice and assistance of outside teachers, scholars, and administrators in order to meet their particular needs. For many institutions, money may not be as great a need as advice; in these schools assistance at the most basic level of planning might have a significant impact on students, faculty, and administrators.

A variety of situations might call for consultant assistance: a liberal arts college considering alternatives to a fragmented general education requirement; a technical institution wishing to integrate the humanities into professional education; faculty hoping to plan and conduct a summer institute dealing with current issues in their field; a community college seeking to incorporate new teaching methods or audiovisual materials into humanities courses; a university wishing to strengthen the role of its library in humanities education--in each of these situations, in which an institution is setting off in a direction in which it has little experience, there

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is a need for an easy mechanism for locating and hiring consultants with expertise in the area of need.

Many of the consultants are themselves the directors of successful programs in the humanities. Assistance from professionals who have themselves experienced the frustrations and rewards of attempting to design worthwhile programs in the humanities can be valuable in helping institutions to channel their efforts in the right direction and to deal with the substantive, administrative, and budgetary problems encountered in any major curricular restructuring.

The new consultants program is thus significant in enabling the Endowment, with only modest expense, to extend its reach to every institution of higher education in the country.

It is expected that consultants grants will average $2,500, including costs of consultant honoraria, per diem, and travel, secretarial assistance, supplies, and communications. The goal for FY 76 is 120 consultants grants, most of which will go to institutions receiving Endowment assistance for the first time.

FELLOWSHIP PROGRAMS
(Definite Appropriation)

	FY 1974 Actual	FY 1975 Estimate	FY 1976 Request	Increase or Decrease(-)
I. Residential Programs				
1. College teachers	- -	$2,600,000	$2,600,000	-0-
2. Summer seminars	$1,361,841	2,500,000	2,500,000	-0-
3. Centers for advanced study	80,000	400,000	400,000	-0-
4. Fellowships in the Professions	1,000,505	1,300,000	1,650,000	$350,000
II. Independent Fellowships				
5. Independent study and research fellowships	- -	2,600,000	2,800,000	200,000
6. Summer stipends	500,000	400,000	400,000	-0-
7. Senior	1,852,518	- -	- -	- -
8. Younger humanists	1,208,555	- -	- -	- -
9. Selected fields	454,420	- -	- -	- -
10. Junior college teachers	541,398	- -	- -	- -
Total	6,999,237*	9,800,000	10,350,000	550,000

* Plus $538,000 in gifts and matching funds

Fellowships are the means by which the Endowment helps individual scholars, teachers, and practitioners of other professions continue to increase their knowledge and understanding in the humanities. A fellowship frees the recipient from customary responsibilities so that he or she may engage in sustained planning, reflection, study, research -- and frequently writing. Resulting articles and books make new contributions to humanistic knowledge; plans and reflections result in new approaches to teaching and other professional responsibilities.

The results of intensive study can be perceived both in the individual and in the individual's work. It sharpens insights, opens new perspectives, and expands the scope and quality of the fellow's knowledge. At the same time these new insights often provide that necessary vitality of perspective which is the difference between excellence -- in the classroom, in scholarship, in leadership to a fellow's profession -- and stale mediocrity.

While these opportunities for intellectual growth are particularly important for the quality of work in the humanistic professions, the number of such opportunities available has always been disproportionately small. There are approximately 140,000 college and university teachers in the humanities. At the time the Endowment was established, there were fewer than 500 postdoctoral fellowships annually available to humanists, and this number has been increased only by NEH fellowships. A relatively small number of leading colleges and universities have traditionally offered sabbatical leaves to faculty members, but that number has never been large and many institutions have been forced to curtail sabbaticals as a consequence of the economic pinch of recent years; thus more than ever before there is a pressing need for the Endowment to continue its indispensable role.

Since 1967, the first year of NEH fellowship support, the Endowment's impact has been substantial. The Endowment awarded 157 fellowships and 128 summer stipends for 1967-68 and has increased the number to an estimated 375 fellowships and 1,060 awards for summer study in FY 1975. This growth has been accompanied and, indeed, justified by a parallel growth in both the quantity and quality of individual applicants, whose number has jumped from about 1,200 in FY 1967 to an expected 5,000 in FY 1975. In conducting its fellowship programs for 1967 to 1974, the Endowment responded to the initiatives of individual humanists who had discrete projects. However, experience has shown that, in addition to the many scholars who are interested in undertaking projects of original research and writing and who need an opportunity to explore their subjects independently, using widely scattered resources, there are many other scholars, indeed the large majority (including particularly teachers in the smaller colleges and two-year colleges), who are primarily interested in refreshing their own learning and improving their ability to convey humanistic understanding to their students. These teachers are better served by the opportunity to meet their peers in a collegial program enhanced by the human and physical resources of one major institution.

Accordingly, during the past two years the Endowment has partially restructured its fellowship activities to permit college teachers to participate in organized residential programs of study at various universities around the nation. Reports from the teachers who have participated in these programs and from the senior scholars who have directed them have been uniformly enthusiastic.

Although there is no specifically Bicentennial fellowship program, during the Bicentennial period the Endowment has had a special interest in studies relating to the Revolutionary era and its philosophical and social foundations and heritage. While the emphasis on the Revolutionary era will not be continued in FY 1976, the Endowment's special interest in studies of American history and of the nation's philosophical and social foundations will continue to apply generally in its fellowship programs.

I. Residential Programs

1. Fellowships for College Teachers ($2,600,000)

FY 1975 $2,600,000; FY 1976 $2,600,000; no increase

The purpose of the program of Fellowships in Residence for College Teachers is to provide opportunities for teachers of ability in undergraduate and two-year colleges to improve their teaching by working with experienced scholars in their fields at universities throughout the country. Residing at one of the designated universities for the full academic year, the college teachers participate in a seminar directed by a distinguished scholar and pursue a personal program of study and research, of their own choosing, related to their teaching. In their work, they may consult with the seminar director or with other members of the university faculty, and the resources of a major library suitable for mature study and research are made available to them. Through study, reflection, and discussion, the college teachers increase their knowledge of the subjects they teach, refresh and sharpen their understandings of their fields, and enhance their abilities to convey humanistic understandings to their students.

An average seminar includes nine participants and costs $169,000, which covers the direct costs of the program to the university @ $32,000 for each seminar, a cost-of-education allowance @ $1,200 for each fellow, and a stipend and travel allowance @ $14,000 for each fellow. The seminars will be held at universities located throughout the country, and it is expected that fellows will come from all parts of the country and represent all types of two-year and four-year colleges.

In FY 1975, funds are sufficient to offer a total of 15 seminars, one in each of the large, traditional disciplines of the humanities and the humanistic social sciences. This is a minimal level of operation for a program covering the full scope of the humanities. The FY 1976 request will allow us to continue the program at the same level, thus serving once again about 135 teachers.

Examples of fellowships for college teachers

(i) Professor Vernon Van Dyke of the Department of Political Science at the University of Iowa, Iowa City, will offer a seminar on the subject of human rights and the rights of groups. He will concentrate on the requirement of the United Nations Charter that members shall promote human rights without distinction on the basis of race, sex, language, or religion. Members of the seminar will study questions raised by this requirement, such as, what are human rights? what is equality? what conditions and methods tend to promote human rights and human equality? and what conditions and methods militate against respect for them? The fellows will be

teachers of political science who, in addition to their work for the seminar, will pursue projects of personal study and research, in consultation with Professor Van Dyke and other members of the University of Iowa faculty, and will have full access to the library and research facilities of the university.

(ii) As an example of a fellow in a residential program, an instructor of philosophy at Portland Community College in Oregon is participating in a program for two-year college teachers of philosophy at the Claremont Graduate School. She attends seminars in an area of philosophy and in the teaching of philosophy in two-year colleges, and, in addition, is studying the ideals of freedom and responsibility as they were envisioned during the American Revolutionary era. As a result of this work, she will develop her knowledge of philosophy and be able to revitalize practical, humanistic ideals for her students.

2. Summer Seminars for College Teachers ($2,500,000)

FY 1975 $2,500,000; FY 1976 $2,500,000; no increase

The purpose of these seminars is to provide opportunities for teachers in the smaller private and state colleges and in community colleges to study in their fields with distinguished scholars at major universities for a 2-month period during the summer. Meeting regularly throughout the period with the seminar director and a small group of their colleagues for discussion and reflection, and with the resources of a research library available for their study and research, the college teachers sharpen their understanding and improve their ability to convey their understanding to undergraduate students.

In the second year of this program the seminars have again proved thoroughly successful both from the point of view of the college teachers and from that of the administering universities and seminar directors. They have also yielded several important secondary benefits, particularly the establishment of ties between major universities and small colleges. Done on a large scale, this program will have a major impact upon the quality of teaching and standards of learning in the small colleges.

Each seminar involves 12 college teachers, and the average cost of a seminar is $41,000, including stipends of $2,000 and housing and travel allowances of $250 for each teacher. Under the FY 1975 budget, 61 seminars were funded with a total of 732 participants. The budget requested for FY 1976 will maintain the program at the current level.

Examples of summer seminars

(i) Professor Ralph Cohen, Department of English, University of Virginia, "New Directions in Literary Study," 1973. This seminar emphasized the new approaches to literary criticism through the study of the works of major European and American critics who, in the past decade, have formulated their literary theories by relating literary works to human experience. Questions concerning the nature of literature, the process of reading, the role of the reader, and the nature of interpretation provided the focus of discussion. Seminar members were encouraged to test the validity

and usefulness of the new critical approaches by applying the theoretical statements to specific literary works. Through the appropriate application of the new critical approaches to the teaching of literature, undergraduate instruction can more effectively relate literature to contemporary interests and to new information about human behavior.

After the close of the seminar, the close ties developed between the University of Virginia and the small colleges represented in the seminar continued to be maintained. For example, an English professor from Tougaloo College in Mississippi had applied to this seminar to gain deeper insights into new approaches to literature. The seminar profoundly affected his understanding of the role of critic-teacher, to the extent that he arranged for the seminar director to visit Tougaloo to lecture to his colleagues and students. The group as a whole, desirous of continuing the relationship, has planned a workshop to take place at a scholarly meeting of English teachers for discussion of the effects of the seminar experience on their classroom presentation and personal study.

(ii) Professor Jeffrie Murphy, Department of Philosophy, University of Arizona, "The Philosophical Foundation of American Democracy," 1974. This seminar sought to reexamine the ideas of freedom, justice, and democracy inherent in the liberal tradition of political philosophy of writers such as John Locke because of the enormous influence this tradition exercised upon the American Revolution and the development of the American constitutional democracy. Through a study of both classical and contemporary political writings, the seminar members gained a deeper understanding of the basic principles of this philosophical tradition in order to assess in a more astute way the strengths and weaknesses of current challenges to the tradition. The seminar was designed as a contribution to more informed undergraduate instruction in American social and political philosophy and in the history of American civilization in general.

3. Fellowships at Centers for Advanced Study ($400,000)

FY 1975 $400,000; FY 1976 $400,000; no increase

The nation's great centers for advanced study and the major research libraries and museums offer opportunities to our leading scholars not only for work in their own fields but also for extended discussion with other resident scholars working in other fields, and hence for interchange of ideas at the deepest levels of understanding. The purpose of this program is to enable these centers to provide such opportunities to an optimum number of humanists -- at the same time strengthening the centers by stimulating their maximum use for work in the humanities and, in many cases, creating a fruitful balance between humanists and social and natural scientists at the center.

The number of centers capable of providing this kind of opportunity is limited. They include the well-known independent centers for advanced study, a few smaller centers of narrower scope, and the independent research libraries and museums. The optimum numbers of fellowships and the average amounts of individual fellowships will vary greatly. The FY 1976 request will maintain support at the present level, providing about 30 fellowships.

Example of fellowships at centers for advanced study

Only one center for advanced study has been supported under this program to date. In FY 1974 the Endowment granted $80,000 in outright funding plus $88,000 in gifts and matching funds, a total of $168,000, to the Institute for Advanced Study at Princeton, New Jersey, to provide 16 fellowships for the 1974-75 academic year in the Institute's School of Historical Studies. At the Institute the fellows are able to pursue their own work under the double stimulus of association with the distinguished 12-member resident faculty of the School of Historical Studies and association with other visiting fellows. The School's program provides for substantial intellectual interchange among members both in formal seminars and in less formal surroundings. The reports of former fellows provide abundant testimony to the fruitfulness of working in a setting which provides every facility and encouragement for concentrated work as well as offering the intellectual stimulus of daily discussions with colleagues with a wide range of interests touching continually in unexpected ways upon one's own.

4. Fellowships in the Professions ($1,650,000)

FY 1975 $1,300,000; FY 1976 $1,650,000; increase $350,000

Leaders in professions outside of teaching -- journalism, law, medicine, school administration, etc. -- have an important influence on directions this country takes in all its affairs. Unlike scholars and teachers, whose work involves the advancement and communication of knowledge, people in the professions are concerned with the application of knowledge and have not generally had the time to stand back from their work to examine its philosophical or historical foundations or its wider implications for the community and the nation. Nor have they generally been trained, in the professional schools, to perceive the humanistic dimensions of their work. The quality of the leadership of people in the professions and of professional-school teachers can be enhanced by a period of study designed to broaden and sharpen their humanistic perspectives. In addition to serving the commonweal, the effect should be to demonstrate to their colleagues the importance of humanistic understanding in their professional work.

Twelve fellowships were awarded in FY 1974 to law teachers and 24 to practicing journalists for study at three institutions during academic year 1974-75, and a like number will be awarded in FY 1975 for 1975-76. While long-term, academic-year fellowships are feasible and clearly useful opportunities for professional-school teachers, members of most non-academic professions typically could not take leave from their jobs for such a long period. For lawyers, physicians, and most other professionals, short-term seminars of 4 or 5 weeks offer the maximum feasible and hence the best opportunities for concentrated mid-career humanistic study. Five such seminars, each with 12 to 15 participants, were offered in FY 1974 for practitioners in the legal and medical professions and proved to be extremely successful. Eleven are being planned for FY 1975 in law, medicine and school administration, and the request for FY 1976 will permit the funding of 20 short-term seminars serving some 240 to 300 persons. This will permit a broad range of seminars and will open the program to virtually all professions. Stipends in

the journalism fellowship program are salary-matching up to $1,500 per month, plus book allowances; fellows in the law teacher program receive a monthly stipend of $1,500, plus book and travel allowances. Participants in the seminars receive a $1,200 stipend for room and board, plus reimbursement for travel costs up to a maximum of $300. Grants are made to the host institutions and cover stipends and allowances plus the costs of offering the fellowship or seminar program. The total cost of the fellowship programs averages approximately $300,000; the total cost of the seminars averages $37,000. The programs are open to applicants on a national basis and awards are well distributed throughout the country.

Examples of fellowships in the professions

(i) A seminar for practitioners of law on the subject of "Law, Order and Liberty" was offered during June 1974 by a Professor of Philosophy at Columbia University. The 15 participants came from all over the country and included, along with a variety of attorneys, four judges, among them an Associate Justice of the Supreme Court of Puerto Rico; a Public Defender (of Monterey County, California); a Division Chief in the Miami, Florida, Public Safety Department; and the Executive Director of the Montana Bar Association. They met daily for 3 hours in the morning to discuss a variety of literary and philosophical works by Hobbes, Locke, J.S. Mill, Melville, Dostoyevsky, Shaw, Sophocles, Plato, Holmes, Cardozo, Learned Hand, and others. The focus of the seminar was the central and constant question faced by the law -- the adjustment of individual liberty to the social need for limits, cooperation, and predictability. The works were discussed in relation to perennial practical problems confronting lawyers.

(ii) A seminar for practitioners in the medical professions on the subject of "The Patient as Person--Ethical and Philosophical Issues" was offered during September 1974 by a Professor of the Philosophy of Medicine at the University of Texas Medical Branch at Galveston. This seminar used case-oriented examinations of questions such as patients' rights, abortion, death and dying, etc. These questions served as points of departure for an exploration of the basic ethical and philosophical issues which lie at their roots: concepts such as the sanctity of life, human dignity, and the quality of life, and the nature of societal versus individual claims and counter-claims. The seminar also considered how questions of value and concepts of individuals influence actual decision-making in the practice and administration of the health professions. Morning and afternoon sessions were held 5 days per week. The 12 participants include a General and Transplant Surgeon from Santa Barbara, California, a Pediatrician in the Denver Neighborhood Health Program, the President of the Hancock County Medical Society, Ohio, and the Vice President of St. Vincent's Hospital in Billings, Montana.

II. Independent Study and Research Programs

5. Fellowships for Independent Study and Research ($2,800,000)

FY 1975 $2,600,000; FY 1976 $2,800,000; increase $200,000

The independent study and research programs are for individuals with specific and important projects in the humanities that require full-

time pursuit. The programs are limited to scholars, teachers, writers, and other interpreters of the humanities who can work independently and can make significant contributions to humanistic knowledge. The length of the planned investigation determines whether the individual will seek a Fellowship for Independent Study and Research or a Summer Stipend. Both programs will provide assistance to people at any stage of their careers, if they have made significant contributions to humanistic knowledge or have demonstrated promise that they can do so.

The fellowships are available for continuous periods of 6 or 12 months of tenure, with stipends of up to $10,000 or $20,000, respectively. At the requested level approximately 165 fellowships could be awarded. In FY 1975, when approximately 150 fellowships were available, at least that many deserving applications were rejected for lack of funds. The number of awards that can be made under the projected figure for FY 1976 is therefore small in relation to the number of college and university teachers and other humanists who could make effective use of a fellowship, but it is a number that will nevertheless have a substantial and far-ranging impact upon humanistic learning and understanding, as the following examples illustrate.

Examples of independent fellowships

(i) In 1971 William Clebsch, professor of Religion and Humanities at Stanford University, received a fellowship to write a history of American religious thought. He proposed to deal with religious thought and experience as human phenomena, open to humanistic study and interdisciplinary interpretation involving literature, history, and philosophy. His book, American Religious Thought: A History, focusing on three seminal figures, Jonathan Edwards, Ralph Waldo Emerson, and William James, was published last year to high critical acclaim.

(ii) Gerald Grob, professor of history at Rutgers University, received a fellowship in 1972 to study social policy and mental illness in America. He proposed to focus specifically on such aspects as the reasons for the emergence of institutions, the attitude of society and government toward the mentally ill, the relationship of community and hospital, and the development of public and private institutions and the legal and administrative framework in which they operated. He viewed the project as essentially a case study of an even broader problem: namely, how society formulates policy in regard to dependents of all varieties (the rich, the aged, the young, the unemployed, etc.). Given the current magnitude of welfare problems, he felt his analysis of social policy toward mental illness should provide a broad and meaningful historical background to contemporary issues involving mental health and mental illness. The first volume of his projected four-volume work, Mental Institutions in America: Social Policy to 1875, appeared last year and was judged by critics as an important aid for understanding the complexities and ambiguities of the issues and forces which helped shape the early development of America's mental institutions.

6. Summer Stipends ($400,000)

FY 1975 $400,000; FY 1976 $400,000; no increase

This program provides grants of $2,000 to college and university teachers, freeing them from the necessity of summer teaching to enable them to carry out individual projects of study, research, and writing. Because of a limit of three to any one institution, the awards are assured a wide distribution. The program has been particularly helpful to scholars in the smaller colleges and universities. A further benefit of the program is the attention it calls to the value of summer study and the benefits to the colleges and universities of providing institutional funds for this purpose.

The budget requested for FY 1976 will maintain the program at the current level, thus providing study opportunities for 200 individuals.

Examples of summer stipend projects

(i) The Maine-Canadian boundary dispute, the most vexatious problem in Anglo-American relations left over from the American Revolution, was studied by an assistant professor of history at the University of Nebraska. With his stipend he was able to spend the summer in London concluding his research on the Webster-Ashburton Treaty, the agreement which settled this dispute. Research in foreign archives, in addition to making his book-length study publishable, promises to improve his preparation for the course which he teaches annually in American diplomatic history as well as shed light on international boundary disputes, a matter of ongoing concern in many parts of the world today.

(ii) An assistant professor of musicology at the Eastman School of Music proposed to do the research required for a performance of authentic music of the Revolutionary era to celebrate America's Bicentennial. Scheduled for delivery in the Coolidge Auditorium of the Library of Congress in the autumn of 1976, the performance will seek to recreate, in a manner faithful to the flavor and excitement of the period, music which Washington and Jefferson might have enjoyed. The summer of 1974 was spent searching for repertoire, gathering information, and preparing musical scores which will be used for this commemorative event.

RESEARCH GRANTS PROGRAM

(Definite Appropriation)

Activities	1974 Actual	1975 Estimate	1976 Request	Increase or Decrease(-)
1. General research	$2,558,140	$3,000,000	$ 3,000,000	$ -0-
2. Editing	1,917,802	1,500,000	2,000,000	500,000
3. State and local history	228,102	500,000	500,000	-0-
4. Bicentennial history program	290,568	825,000	300,000	-525,000
5. Research tools	1,795,174	2,200,000	2,250,000	50,000
6. Research centers	547,989	600,000	1,660,000	1,060,000
7. International bicentennial conferences	282,160	1,000,000	495,000	-505,000
Total	7,619,935[1/]	9,625,000	10,205,000	580,000

1/ plus $6,066,470 in gifts and matching funds

The province of the Endowment's Research Grants program is basic scholarship in the humanities; and it is designed first for the support of projects which will build up the nation's resources necessary to conducting humanistic research and, second, for the support of projects utilizing such resources for research purposes. Projects contributing to the first aim may include the compilation of dictionaries, the cataloging of manuscript collections, the taping of interviews in oral history projects, or the preparation of critical editions of great Americans' papers. Projects in the second area are more ad hoc in character and usually aim at focusing scholarly energies on a problem in order to produce knowledge and understanding, to explore and/or revise a thesis, to relate established knowledge to new discoveries, to apply new methods or technologies to traditional theories, or to apply scholarship to the needs and interests of the general public.

The proportion of Endowment direct funds set aside for research grants has been at a relatively low level during the early years of the agency's development, but research projects have raised gifts for matching purposes totalling almost $9 million between 1967 and 1974 -- almost 44 percent of the Endowment's gift total of $20,200,000. The percentage has grown increasingly higher in recent years, reaching 60 percent in FY 1974. The ability of research projects thus to attract gifts has greatly increased the Endowment's capacity to support such programs; but this ability also testifies to the degree to which research projects are recognized as essential by others willing to join in their support.

Last year two measures were instituted which have led to major changes in the shape of research programs. First, with the shift to the support of large-scale, collaborative projects, the research programs no longer support projects which are essentially one-person, short-term study projects; these are now supported by the "Independent Fellowships" program. Second, all the research programs have been scrutinized in order to sharpen their focus, with the result that the Endowment has targeted distinct groups and/or needs which the research programs are designed to serve and is rapidly establishing direct contacts with representative members of these groups.

The shift away from one-person projects towards collaborative endeavors has resulted in a leveling off of numbers of applications received: in FY 1972, 839 applications were submitted to the research programs; in FY 1973 the number was 1050 and in FY 1974, 882. On the other hand, the shift to support of collaborative efforts has increased as average size of all grants awarded was about $17,500; in FY 1974 it was about $61,000. In FY 1976, with the greater clarification of the research programs and the stimulation of proposals in specific areas, the number of applications is expected again to rise. In addition, the average size grant is likely to increase still further as the Endowment continues its plan to support large-scale research efforts. In terms, then, simply of the expected numbers of first-rate proposals and the average grant level, the research programs as detailed in each of the descriptions below all require a substantial increase in funding level. In addition, a final factor must be taken into account. Research institutions have been especially hard hit by the inflation spiral; cost of salaries, equipment, and overhead in general has risen far quicker than institutional income, and this does pose some doubts about future matching projections for these projects.

FY 1976 will complete funding for two specific Bicentennial programs: the International Bicentennial Conference Program and the Bicentennial History Program. These programs, which were launched specifically for the nation's commemoration, promise to make a major contribution to the quality and spirit of that observance. Though official programs for the Bicentennial will be phased out in 1976, a large part of the Endowment's research projects by their nature are related to the Bicentennial as about 70 percent of research grants have always been concerned directly with the history and culture of America. In this sense, then, the Endowment will continue to be supporting projects that contribute to America's sense of its own past which will, in turn, benefit the nation's future.

1. General Research ($3,000,000)

FY 1975 $3,000,000; FY 1976 $3,000,000; no increase

The General Research Program, unlike most NEH research programs, is not geared to a specific research need; rather, it allows the Endowment to respond to applicants whether or not they are affiliated with an institution of basic research in the humanities. Since the program serves a general and ongoing need, there is no clear limit to the universe of potential beneficiaries of the program. In FY 1974 the program received 544 applications and was able to fund only 72 projects (13 percent). The total number of proposals submitted to this program is expected to rise, especially in areas of special activity which include, for FY 1975, American archaeology and the humanistic social sciences, and in FY 1976, philosophy and linguistics.

Further, in order to encourage American scholars to share new developments and discoveries in research methodology and technology, the program will begin in FY 1976 to support 2 or 3 working conferences designed to stimulate the exchange of information. The program's experience with past grants indicates that communication at earlier stages in the development of new methodologies will contribute greatly to the advancement of an entire scholarly field and will in addition help to save time and money through avoiding duplication of effort. About 50 participants will be involved but the impact on the discipline will be felt for several years. Each conference will cost approximately $50,000.

In addition, the program will in FY 1976 begin support for a number of projects to survey the long-range needs for research in the humanistic disciplines. Three to 5 years will be required to launch such surveys for all areas. The information which is available from such surveys will provide a significant advance for determining the nation's long-term priority needs for humanistic research. The results of this effort will serve both research oriented programs as well as larger Endowment purposes. In FY 1975, 80 to 90 grants are anticipated each averaging between $50,000 and $55,000 when gifts and matching funds are included. In FY 1976 at the requested level, funding would support slightly fewer projects averaging $50,000 to $60,000 each, including the addition of matching funds.

All of the above projects can be expected to report the results and progress of research at professional meetings. Some 50 ongoing projects will produce publications during the year. A total of 4,000 persons will benefit directly from these projects.

Examples of general research projects

(i) The International Studies Association, located in Minneapolis, Minnesota, has with support from the General Research Program been able to devise and implement a model structure for scholarly communication. Scholars interested in a topic such as the evolution of urban areas produce working research papers which are then distributed to members of the association in other disciplines who are interested in the same problem. As a result of this process of cross-disciplinary criticism, the ultimate papers are significantly strengthened and various disciplines are fertilized by the sharing of ideas from other fields. Last year 17 papers were circulated to over 4,000 scholars. A bulletin highlighting the research interests of the various interested groups of scholars was distributed to an additional 15,000 humanists. The direct impact on and stimulation of both scholarship and teaching was enormous. After the third year of the program the International Studies Association will be able to take over support for this well-structured system for the communication of research results.

(ii) Professor Cynthia Irwin-Williams of Eastern New Mexico University, with NEH assistance, has been able to continue her "Investigation at the Salmon Site: The Structure of Chacoan Society in the Northern Southwest." This excavation represents the Endowment's largest project in American archaeology. Professor Irwin-Williams' goal is an extremely rigorous investigation into the essential structure of Chacoan society which reached its height in the 11th century A.D. in New Mexico and was unquestionably one of the most sophisticated and complex native societies in North America. The Salmon Site, one of the largest Chaco towns, was a massive community on the San Juan River. The excavation involves specialists from many different disciplines and is concerned with examining the social structure of the Salmon-Chaco society with special reference to its arts, architecture and economic base; and with an examination of the forces contributing to the collapse of Chaco society. Beyond the immediate significance of the data recovered from the Salmon Site and the valuable insights this project will yield for a greater understanding of Chacoan society, the project represents the kind of widely based support for humanistic endeavors that the Endowment feels is vitally important. Local persons donated food for the excavation staff and San Juan County passed a bond issue to raise funds for a museum and laboratory facilities for the Salmon Site.

The Salmon Site has also received substantial funding from a number of governmental agencies, including the legislature of the State of New Mexico which this year appropriated $190,000 to meet a matching offer from NEH.

2. Editing Grants ($2,000,000)

FY 1975 $1,500,000; FY 1976 $2,000,000; increase $500,000

The search for variant manuscripts or the attempt to get beyond a published text to the author's own manuscript is essential to a full understanding of an individual's thought. Thus the Endowment supports editing of literary texts, philosophical writings, and historical manuscripts and correspondence. The collecting and ordering of the letters and other papers of important historical or literary figures, the first step in any editorial activity of this

kind, opens the papers for use by other scholars and makes published or microfilmed editions possible.

The more immediate beneficiaries of the editing projects are, of course, scholars, students and interested readers who will in future years read one of the novels in the Center for Editions of American Authors edition or browse through the correspondence of some important historical figure in whom they are interested. However, good scholarship eventually serves a vast public. For example, the forthcoming television series, "The Adams Chronicle," has relied heavily for historical material on the Adams Papers, located in the Massachusetts Historical Society. The television series will undoubtedly reach millions of people both during its initial showing on the Public Broadcasting System and eventually throughout the world when the film is distributed abroad. Thus, it is obvious that the documents provided by editing projects are important to a far wider and more diverse audience than just the scholarly community.

Endowment support for editing projects falls into four general categories. The first is the publication of definitive editions of classic American literature (which include the works of Mark Twain, Ralph W. Emerson, Washington Irving, and Stephen Crane) and the writing of American philosophers (thus far, only the work William James The publication of definitive editions of classic American literature is principally the achievement of the Modern Language Association's CEAA. The significance of CEAA goes beyond the individual editions, which this year moved past the 100 volume mark, to the development and maintenance of scholarly standards for textual editing. A CEAA edition recovers and preserves the author's full intentions and provides a complete record of all the evidence bearing on the establishment of the text. A volume bearing the seal of the CEAA should never have to be done again. This landmark project will receive its last major block of funds from NEH in FY 1975.

Second, there are editions of the letters and papers of significant Americans who played major roles in shaping the nation's history (these include George Washington, John Jay, Robert Morris, Daniel Webster, Booker T. Washington, and Frederick Douglass).

Third, there is support for American scholars participating, often as part of large international projects, in editions of the writings of major intellectual figures from the past, such as St. Thomas Aquinas, Sir Thomas More, or William of Occam. Finally, support will be forthcoming for topical projects.

The funding required to carry on a large-scale editorial program in the humanities goes beyond the resources of the individual scholar or the individual institution. It is only through coordinated governmental support that these important endeavors can be successfully maintained. This is no less true today than it was in the last century when European governments provided massive support for the editing and publication of the documents which illuminated their literary and historical heritage and laid the foundation for modern textual criticism and historical research.

In FY 1974, the editing program received 59 applications and was able to support only 28 of them. Of the 28 awards made, 17 were for continued funding of existing projects while only eight represented commitments to new editing projects. Thus, support to date has been focused on the papers of only the most eminent individuals, thereby neglecting less obvious but still significant figures and important topical areas such as labor history or the suffrage movement. For fiscal years 1975 and 1976 the emphasis will be broadened to include these other areas, and particularly disciplines like music and philosophy in which the importance of modern editing principles is just being widely recognized.

For FY 1975 the planned level of funding will provide support for complete funding of the CEAA grant plus 20 continuation projects and 13 new projects with an average grant size from combined outright and gifts-and-matching funds of $55,000. For FY 1976 the average grant size from combined outright and gifts-and-matching funds will be $70,000. At this level 29 grants for continuing projects and 11 for new ones will be made.

3. State and Local History Program ($500,000)

FY 1975 $500,000; FY 1976 $500,000; no increase

The State and Local History Program is designed specifically to strengthen the nation's understanding and appreciation of American history below the national level. It does so in two ways: first, through grants for the research and writing of interpretive history concerned with a state or locality; and, second, through providing support for the location, organization, and preservation of the historical resources necessary to consider state and local historical topics and problems. Some states but very few cities, counties, or towns have been concerned with their history or had the financial resources to secure the relevant documents. Federal support is necessary for the protection and utilization of a national resource not already provided for by local appropriations.

The ongoing control and management of current records is first and foremost the responsibility of the municipality or state. Local funds and expertise from the National Archives are available for the care and maintenance of current records, but very few locales can provide support to locate and secure the historic records (public or private), books, manuscripts, or archival documents that are a necessary complement to contemporary records. It is, then, in this area of historical records that the NEH program for state and local history is aimed, with particular emphasis on developing models and taking advantage of gifts-and-matching support, for the reclamation of historical resources in various parts of the country with different problems. All grants made by the State and Local History Program carry a 10 percent cost-sharing contribution by the sponsoring institution; and private matching is strongly encouraged.

During FY 1975 an estimated $500,000 will be awarded to support 15-20 state and local history projects. In FY 1976, three archival projects and about six interpretive histories will require continued funding. The budget request will support these, as well as two new archival and 12 new writing projects. The writing projects will average $27,000 and all archival projects will continue to be supported primarily out of gifts-and-matching funds.

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Example of state and local history grants

Three major public and private institutions, cooperating with the City of Houston, received gifts-and-matching support to create a center for the city's historical resources which date back to the early eighteenth century. A full catalogue of the historical resources for the area will be produced and the materials themselves will be housed in the Houston Public Library. A number of leading business, fraternal, charitable and civic groups have indicated their willingness to give records to the Center. The support from the Endowment was instrumental in attracting local support and interest for the project.

The wide-ranging nature of the collection will permit the broadest cross-disciplinary consideration of a variety of topics in urban history and provide the needed documentation for a humanistic understanding of the evolution of many pressing urban problems. The project has already been visited by a number of representatives from other cities who seek to establish similar archives.

4. Bicentennial History Program ($300,000)

FY 1975 $825,000; FY 1976 $300,000; decrease $525,000

This program is one of two programs initiated by the Endowment specifically for the nation's Bicentennial and is one of the projects approved by the Domestic Council's Cabinet-Level Bicentennial Committee. The purpose of the program, which is being carried out through the American Association for State and Local History, is to produce for the general public a 51-volume set of interpretive and evaluative essays which will portray the spirit, character, attitudes and values of the people of each state and the District of Columbia. The series will outline the development of each state and describe the contribution it has made and is making to the history of this nation's experiment with democracy. Each essay is the work of a person who has already demonstrated a scholarly grasp of the state's history, but is also an accomplished popular writer with strong personal ties to the state about which he or she will write.

A contract for publication was signed with W.W. Norton & Co. in early 1974, and production of the first volumes is planned by the end of 1975. To assure the widest possible distribution of each state history, the publisher agreed to make modestly priced paperback volumes available within eight months of the publication of the cloth-bound volume. Extensive promotion of the Series is being undertaken both by the publisher and the AASLH and newspaper serialization is being explored. By December 1974, 21 distinguished authors, including Bruce Catton, Elton Morrison, Louis Wright, Wilma Dikeman, Saunders Redding and Joe Frantz, had signed contracts for volumes. Michigan, South Carolina, California, Texas, Tennessee, New Hampshire, Delaware, Washington, Florida, Connecticut, Utah, Kansas and Arizona were among the first group of States signed. It is anticipated that all the volumes will be in various stages of development by the end of 1975 and there is every expectation that the complete series will be in print by 1977. Accordingly this program will reach the peak of its activity in FY 1975 and level off in FY 1976, its final year, when funds will be needed for completing editorial work and perhaps undertaking the production of a volume on major U.S. territories if this proves feasible.

5. Research Tools ($2,250,000)

FY 1975 $2,200,000; FY 1976 $2,250,000; increase $50,000

Established as a separate program line in FY 1974, the tools program provides support for basic works in humanistic research -- bibliographies, dictionaries, atlases, and encyclopedias. Currently supported are 61 ongoing tools projects, 40 of which received funding in FY 1974. Projects of this kind emphasize the indispensible role that the Federal monies must play, for it is beyond the means of any one institution or scholarly organization to support these projects; yet they are essential to contemporary humanities research and, more importantly, to future humanists.

Almost without exception research tools projects are complex and often expensive undertakings and, therefore, planning and feasibility studies are usually necessary to ensure that the essential research tools are produced in an efficient manner. Two years ago, at the request of the National Endowment for the Humanities, the American Council of Learned Societies conducted a survey of the needs for research tools in the various humanistic disciplines. That study indicated that, at a minimum, 110 such projects (of about 250 proposed) have a high priority for American humanists and only a few of these currently receive funding from any source. In FY 1975, 36 tools projects at an average level of $60,000 will be supported, while 10 planning grants averaging $14,000 will be made for surveys to determine precise needs for research tools in specific disciplines.

The FY 1976 funding request, plus support offered on a gifts-and-matching basis, will support 36 projects at an average amount of $65,000, and 11 planning grants at an average amount of $14,500. These projects comprise about 14 percent of the possible universe.

Examples of research tool grants

(i) Based at the Graduate School of the City University of New York and supported by the ACLS, the International Repertory of Music Literature (RILM) is one of the earliest research tool projects to be supported by the Endowment. RILM is designed to serve two purposes, the first involving the editorial functions and organization needed to produce a scholarly journal of abstracts of significant current writings in music literature; and the second concerning development of computer technology to meet the difficult bibliographic problems which confront scholars in the humanities. Production of the journal RILM Abstracts requires extensive international cooperation with a network of 42 national committees, 45 "area" (discipline) editors, and the editors of 92 important journals. It also involves exchange agreements with abstracting and bibliographic service organizations in the U.S. and abroad. RILM Abstracts has nearly 700 institutional and 450 individual subscribers at present. The large number of institutional subscriptions indicates the journal's value as a reference tool. An estimate of the user audience would exceed 10,000, with greater use expected as the journal becomes better established.

(ii) An award to the Indiana-based Organization of American Historians is an example of a research tool survey grant. This survey looks to the revision and up-dating of the important Directory of American Newspapers, published in 1937 and covering the years

1821-1936. By providing references to the contents of newspapers' files, the Directory constitutes a major research tool to scholars studying any aspect of American life; however, the Directory was imperfect when published and is now very much out-of-date. The NEH grant is being used to contact state libraries, archives, historical societies, major research institutions, library associations and historians, in order to determine the type of directory most useful and needed at present and the problems likely to be encountered, as a basis on which a large-scale revision project may be undertaken.

6. Research Centers ($1,660,000)

FY 1975 $600,000; FY 1976 $1,660,000; increase $1,060,000

The nation's approximately 400 centers of research represent a large variety of institutions ranging from the Research Collections of the New York Public Library, through the members of the Independent Research Libraries Association, to a large number of foreign area and language study centers, state and local historical societies, university and collegiate libraries, and private collections and institutes. About 150 of these institutions fulfill particularly important roles as repositories of materials for humanistic learning; the majority of them serve, as well, as centers for senior scholars to pursue their interests and for younger humanists to further their training.

Without recourse to institutional support these national resources are being especially hard hit by rising costs and inflation because of their narrow financial base. The Endowment created a program two years ago to keep these centers open and available to the public and the scholar.

NEH recognizes the inability, even with funding many times greater than that here requested, to provide support for all aspects of the operations of deserving centers of research. Hence, the Centers program is limited to two areas where Federal support may be most useful and effective: (a) support for discrete interdisciplinary research programs in the centers and (b) assistance for unique collections of national importance. Grants for the latter area aid cataloguing, inventorying and indexing materials as well as in the preservation of significant materials through microform or other means. Grants to research centers tend to carry with them a considerable institutional commitment, expressed in a larger than usual contribution in cost-sharing, and challenge matching grants to encourage gifts and grants from private individuals and foundations. An estimated 25-35 percent of grants in this program will be on a gifts-and-matching basis.

In FY 1975 the program will make nine grants at an average level of $95,000. These nine grants will reach approximately two percent of the 400 centers of research in the United States.

At the level of funding requested for FY 1976 and including support offered on a gifts-and-matching basis, the program will make 8 grants for research programs at centers and 12 grants for improving collections at an average amount of $95,500. These 20 grants will reach about 5 percent of the centers of research.

Examples of research center grants

(i) Two years ago when the New York Public Library began to curtail its research services because of financial deficits, NEH began issuing its challenge grants: the first one for $500,000 to be matched on a one-to-one basis, the second for $750,000 and a third for $1 million to be matched on a basis of two private dollars to one Federal. These have resulted in raising a total of $4 million in private support for the New York Public Library.

(ii) A grant of $86,063 has been awarded the Institute of Medieval Canon Law in Berkeley, California to support an intensive analysis of medieval manuscripts of canon and Roman law. The project involves the direct participation of 13 senior and junior scholars from the United States and abroad in the evaluation of significant manuscripts --a basic and crucial step toward the eventual publication of much needed editions of medieval legal works essential for research in medieval studies, pertaining to constitutional history, political thought and the development of social and educational institutions in Western society. This project will also result in several monographs and commentaries on the fundamental role of canon law in the development of Western civilization. Third-party contributions will be used in part to acquire microform copies of manuscripts from the Vatican library to further enrich the Institution's holdings, which comprise a unique research resource in the U.S.

7. International Bicentennial Conferences ($495,000)

FY 1975 $1,000,000; FY 1976 $495,000; decrease $505,000

In keeping with the NEH policy of encouraging high quality scholarship related to the Bicentennial, the Endowment launched last year a program to support selected international scholarly conferences and congresses. As recognized by the Domestic Council's Bicentennial Committee, which approved the program as one of the Federal government's principal Bicentennial activities, these conferences will serve as showcases for the recent products of American research in the humanities and enrich such research by providing an opportunity for foreign scholars to contribute their ideas and perspectives on issues of mutual interest and concern. They will also provide an opportunity for American scholars and the United States as a whole to return the hospitality which has been offered to them in the past by foreign scholars, learned societies and governments.

Since this program has been constructed specifically in connection with the Bicentennial, spending will peak in FY 1975, when funds will be committed for implementation costs for most of the conferences. Funding at slightly less than half the 1975 amount will be needed in FY 1976 to cover wrap-up costs.

Of the grants already made under this program, about one quarter have been gifts-and-matching funds. It is expected that this pattern will hold for the remainder of the program's duration. NEH's policy in supporting such conferences is to provide costs for no more than 50 percent of the total costs so that in each case substantial support has had to be found from other sources.

In FY 1974 the average grant size from outright funds was $39,000. Combined outright and gifts-and-matching averaged $43,000. In both

FY 1975 and 1976 grant averages will remain at approximately the same level. In total, about 20 grants will be made for conferences.

Examples of international conference grants

(i) A grant of $8,880 was made in FY 1974 to fund the planning stages for a conference on the eighteenth century revolution in science, to be held in Philadelphia. This meeting is being sponsored jointly by the University of Pennsylvania Department of History and Sociology of Science and the Library of the American Philosophical Society. It will endeavor to establish the dimensions of the eighteenth century revolution which transformed the cultural, social and intellectual settings and meanings of the individual's inquiry into nature, and which ultimately created modern science as we know it.

(ii) An award of $168,000 was made in FY 1974 to prepare for the fourteenth congress of the International Committee of Historical Science which will be held in August 1975 at San Francisco. This will be the first time that the congress has met in the United States. It is expected that the location of the conference on the West Coast will encourage delegates from the Far East to attend and will also prompt delegates from Europe and Africa to travel slowly across the United States and thereby learn something more of America en route to the conference.

PLANNING: DEVELOPMENT, EVALUATION AND DISSEMINATION

(Definite Appropriation)

Activities	1974 Actual	1975 Estimate	1976 Request	Increase or Decrease (-)
1.Development	$1,842,113 1/	$5,007,859 1/	$4,795,000	-$212,859
2.Dissemination		300,000	500,000	200,000
3.Evaluation & analytical studies	98,228	300,000	750,000	450,000
4.Youth programs	330,787	650,000	650,000	- -
Total	2,271,128 2/	6,257,859	6,695,000	437,141

1/ Includes funds for grants and contracts in furthering pilot programs as well as "program development and evaluation funds," not to exceed three percent of Endowment appropriations, for the support of panelists, consultants, printing and related information services. (FY 1974: $864,271; FY 1975: $1,634,500.)

2/ Plus $605,309 in gifts and matching funds.

As the Federal government, through the Endowment, becomes a more important and sustained sponsor of humanistic activity, it is even more essential that the Endowment remain open to new ideas; that it actively seek out and, where necessary, initiate new ways of acquiring and applying humanistic knowledge and more effective means of involving larger numbers of people in humanistic study; and that it continually attempt to evaluate the impact of its own efforts and disseminate information about successful activities carried on by other organizations. These various functions are administered or coordinated by the Endowment's Office of Planning.

The following budget headings subdivide Planning activities along more or less functional lines, and indicate expamples of the kinds of activities being undertaken or planned. Also noted is the approximate allocation of Endowment funds which may be anticipated for such functions in FY 1976.

1. Development ($4,795,000)

FY 1975 $5,007,859; FY 1976 $ 4,795,000: decrease $212,859

The Endowment's major priorities for development in FY 1975 and in FY 1976 will continue to be (a) designing activities to complement the American Issues Forum; (b) expanding the Courses by Newspaper; (c) supporting experimental projects in non-traditional study and continuing education; (d) designing programs for special groups in the population not normally involved in the humanities; and (e) identifying critical issues confronting American society to which humanists should be encouraged to speak.

a. Planning for the American Issues Forum began in FY 1974 with the creation of an advisory group of distinguished Americans from various sectors of national life, including Walter Cronkite of CBS news, who originated the idea of the Forum. The purpose of the American Issues Forum is to offer to the many and diverse institutions, organizations, and groups which make up American society a common set of important issues which have been of continuing concern to Americans during the past two centuries and which form an agenda for public discussion about the nation's course as it enters its third century. The core of the Forum is the national calendar, extending from September 1975 to May 1976 and posing a major topic for discussion in each month with related sub-topics for each week. The calendar permits each organization to decide how it can best participate and then to formulate its own program, suitable to the interest and resources of its members or constituency.

The enthusiastic response of national and local media, business, labor, state and local Bicentennial Committees, church, educational and other organizations to the initial announcement of the Forum suggests that it is becoming the national framework for Bicentennial activity which has long eluded public and private agencies concerned with commemorating the nation's two hundredth birthday. For its own part the Endowment is designing various specific activities to support the Forum. Three of these (Courses by Newspaper, Good Reading lists, Bicentennial Youth Debate) are described elsewhere in this section.

In addition to these, the Endowment has made a grant to the American Library Association to develop two lists of readings and audiovisual materials that correspond to the weeks of the Forum and will be directed to adults and young readers. A grant to the University of Denver has enabled faculty to establish a six-state regional center to supply

information about the Forum and how to develop programs around it in various communities in Colorado, North and South Dakota, Montana, Utah, and Wyoming.

The Endowment is presently attempting to identify other kinds of study materials and technical services which would be of greatest aid to those organizations and groups without sufficient resources, whether personnel or financial, to develop their own programs. As FY 1975 funds will not be sufficient to cover the cost of this assistance, approximately $500,000 of the FY 1976 request will be used to assure the widest national participation in the American Issues Forum.

b. One of the most remarkable adventures in public education was launched in September of 1973, when 273 newspapers began to bring Courses by Newspaper (CBN) to their readers. The first CBN course was "America and the Future of Man," comprising a series of 20 weekly, printed lectures, developed by distinguished scholars from the humanities and related fields of learning, examining the present situation and future direction of American society. A second course, "In Search of the American Dream," began in September 1974 and is being disseminated for 18 weeks by local newspapers across the nation. The second course will focus on the aspirations and experiences that helped shape the nation's development.

Each course is aimed at three audiences:

(1) the casual newspaper reader, who, it is hoped, will be stimulated by the lecture to reflect upon and discuss with family and neighbors the issues treated in each article;

(2) the reader who wishes to explore the subject further and who will be aided by an inexpensive kit of supplementary study materials; and

(3) the reader who wishes to do serious, in-depth study and receive college credit, which he or she may do through arrangement with a college in the area where he or she will be able to obtain supplemental study materials, meet with fellow course participants in occasional seminars, and take a college-level examination.

An extensive evaluation conducted by an independent organization studying the first course indicated that approximately 15 million persons read one or more of the weekly lectures. In different geographic areas, 80-90 percent of these persons expressed interest in additional courses. While the number of kit purchasers (nearly 12,000) and credit enrollees (nearly 5,000) was small, they were also highly approving of the experiment and wanted it to continue. On the basis of these results, planning is now underway for a third course--a project approved by the Domestic Council's Cabinet-level Bicentennial Committee--which will be disseminated during the Bicentennial year and will examine the issues suggested by the American Issues Forum's calendar of topics.

On the basis of its demonstrated value and with the expectation that the project has yet to reach its full potential, the Endowment intends in FY 1976 to make "Courses by Newspaper" a continuing program. Supervised by a national board, the program will provide two new

courses per year--one for the fall, one for the spring semester--and will seek to make them available for use after initial newspaper distribution. In this way, it is hoped that NEH can assure opportunity for that part of the population--especially confined persons or those living in relatively isolated areas--who cannot enroll in traditional educational programs yet who would like to engage in serious, disciplined study of the American experience. Cost of each course is estimated at $300,000.

c. The Endowment began last year to undertake sustained exploration of the various uses of the electronic media for continuing education in the humanities. This priority recognizes the regrettable fact that utilization of the media--television, cable TV, radio, cassette--for formal adult education has, thus far, not achieved the kind of effectiveness and public acceptance attained by children's television, for example, Sesame Street. Indeed, "Instructional television" in the humanities has usually meant simply television instruction, with the professor lecturing at the TV camera. It is, of course, understandable that the treatment of complex ideas, which characterize study of the humanities, poses far greater difficulties than education in basic skills such as reading; and research, development and testing of solid educational programs which exploit the unique capabilities of electronic media are expensive. A televised course equivalent to a college semester course is estimated to cost about $1 million, but once produced an effective course by media can reach thousands, if not millions, of persons, both on and off the campus, thus extending the walls of the university and quickly paying off the costs of the course's development.

In FY 1974 the Endowment made a small grant to the State University of Nebraska (SUN) to develop the scripts and pilots for a possible media course on the cultural history of the Great Plains region. The producers of the course are attempting to bring together some of the nation's top scholars and media specialists in order to create a new kind of humanities programming. Another grant, to the Aspen Institute, is aiding an inquiry into the nature of television criticism by bringing TV producers and writers, humanists, and critics together to create a program for the schools that will make an examination of television a critical method to awaken and educate students and the general public.

Such projects are expected to promote applications for other innovative and experimental grants. In FY 1975 $1 million is being allotted to the production and evaluation of these various projects, and the same level of funding is projected for FY 1976.

d. Certain identifiable groups in the population not normally linked with the humanities will be targeted for special planning in order to develop workable linkages. The creation of the Youth-grants program in 1972 was a first step and sought to assure NEH efforts on behalf of a special group in the population which had not previously benefited directly from the Endowment's services.

Lack of participation or only indirect or passive participation in the humanities is, of course, not confined to young people. Planning will be initiated in FY 1975 and continued in FY 1976 to develop demonstration programs for certain groups--such as the aging, military personnel--quite frequently removed from the ongoing activities of the Endowment. In recent years, these groups

have been the objects of study but the recipients of little attention in terms of their needs and possible participation in humanistic study.

Endowment concern for the aged is based on several considerations: Senior citizens are often considered retired not only from work but from active intellectual life. Recently, however, interest in the aged as a distinct group has begun to develop. Sociologists are studying death and dying; and psychologists have taken to examining the effects, both biological and institutional, on the aging individual. Regrettably, few humanists have thus far addressed themselves to the aged. On the belief that skills and interest in humanistic knowledge do not wane with years--rather, the exposure of a lifetime evokes a deeper richness in the necessarily acquired wisdom of any variant of cultural study--the Endowment plans this year to investigate the particular educational interests and problems of older people in order to develop possible programs which would operate in FY 1976.

In FY 1975 planning will also be initiated with one or more of the military branches for the design and planning of humanities activities expressly appropriate for military personnel, especially those located away from major cultural centers whether in this country or abroad. Several pilot programs will then have to be tested in FY 1976 at various military installations selected by the Armed Forces. The demonstration projects are expected to be examples of non-traditional study using media presentations, support materials and group discussion.

e. Identifying critical issues that this nation confronts and encouraging humanists to speak to these areas has and will continue to receive high priority. Our most concerted focus is the problems of human and social values generated by the recent and striking developments in science and technology.

An experimental and coordinated NEH-NSF Program of Science, Technology and Human Values was established in 1973. Its premise is that the humanities disciplines-- such as history, philosophy, literature, and jurisprudence--can locate the developments in science and technology within the larger perspectives of the human enterprise.

The kinds of science-technology/ethics-values concerns that prompted the initiation of this Program 2 years ago have since become even more apparent in their complexity and immediacy. Wrenching value alternatives are going to have to be admitted into the national and international consciousness within the next decade respecting such topics as energy resources and consumption; related questions of world population level; environmental hazards; alteration of behavior through drugs and psychosurgery; selection of individual characteristics through genetic manipulation. Concerns about these kinds of problems are reflected in seminal projects funded directly through the Office of Planning: the Institute of Society, Ethics and Life Sciences, Hastings-on-Hudson, to study the origins of ethical premises in biomedicine; Georgetown University (Kennedy Center for Bioethics) to prepare an Encyclopedia of Medical Ethics; Case Western University, to design research on the characteristics and problems of aging; a joint NSF-NEH grant to the American Association for the Advancement of Science, to plan a workshop on methods for achieving better scientist-humanist collaboration in research in this field.

For FY 1975 $750,000 has been allocated for ongoing projects and the initiation of new exemplary projects. During the year certain projects will be jointly funded by NEH and NSF--projects requiring participation of both scientists and humanists, and particularly those which assess the state of the field, or which may provide models for improving scientific-humanistic communication and joint work. To sustain and increase this momentum in FY 1976, $1 million will be allocated.

2. Dissemination ($500,000)

FY 1975 $300,000; FY 1976 $500,000; increase $200,000

The Endowment's dissemination activities serve two important functions: by disseminating information about successful projects to potential users, the Endowment helps organizations to learn from the experience of others and thereby increases the impact of its efforts and maximizes the use of Federal funds; and by collecting and distributing information about the state of the humanities, the Endowment may more effectively carry out its legislative mandate to help "develop and encourage the pursuit of a national policy for the humanities."

Because of limited funding, dissemination activities in fiscal 1974 and 1975 are confined to three areas: Humanities, the Endowment's highly successful newsletter; the Jefferson Lecture, which, through the appointment this past year of Robert Penn Warren, attracted extensive coverage in the media and stimulated increased public attention to the humanities and their relation to national life; and the "Good Reading in the Humanities" activity, the Endowment-sponsored series of book lists designed for the general reading public, to help put into broader perspective contemporary problems such as urban development and economic issues. Also in the latter part of FY 1974 staff began planning for a system for abstracting, thereby alerting potential users to, and providing at cost copies of, NEH grant reports. The planning activity will continue into FY 1975.

In FY 1975 the planning and some testing will be initiated for an expansion of NEH's dissemination activities and operational status will be achieved during FY 1976. These activities are aimed at the following:

(1) a monthly publication schedule for Humanities;

(2) as one of the Domestic Council's Bicentennial projects, the development of a series of Bicentennial-related reading lists in FY 1975 and their dissemination in FY 1976 to accompany the American Issues Forum;

(3) establishment of the reports dissemination system described above and investigation of its possible extension into humanities programs of other organizations;

(4) creation of a series of NEH Grant Profiles or case studies describing in detail successful innovations in education, especially in two-year colleges, and in public humanities programs which have been supported by the Endowment and which might be replicated by other organizations in other parts of the country.

These various and long-necessary activities will help the Endowment give concrete expression to that section of its authorizing legislation directing it to "foster the interchange of information in the humanities."

3. Evaluation and Analytical Studies ($750,000)

FY 1975 $300,000; FY 1976 $750,000; increase $450,000

Sound programming depends upon critical judgement honed from past experiences, both within NEH and elsewhere, and a capacity to identify areas of unmet needs. These activities are no less necessary than they are difficult, especially in an area such as the humanities which does not easily avail itself to the usual standards of quantifiable measurement.

a. Evaluation

In FY 1974 a formal, organized evaluation program was instituted within the Endowment, responsibility for the program being vested in a senior level Evaluation Officer. The program, as established now, consists of two activities:

(1) program evaluation studies to assess the impact and effectiveness of major NEH activities; and

(2) studies of selected, representative grant projects which may have bearing upon subsequent requests for Endowment support. Evaluation work in FY 1974 was limited to one program evaluation, and the experimenting with variant formats for selected project evaluations. FY 1975 will see the implementation of a system of selected project evaluations, and two major program evaluations. For FY 1976 four evaluation studies of major programs will be undertaken while the number of selected project evaluations will be expanded.

b. Analytical Studies

Information about the humanities universe, about the needs, and about the human and material resources supporting the humanities is essential. In FY 1975 and 1976 the Endowment will take its first steps towards developing analytical studies that will support program development. Three kinds of activities are envisioned:

(1) studies of specific humanities areas to assess the met and unmet needs;

(2) support of research leading to the development of new analytical tools; and

(3) support of research leading to the development of new resources that will enable humanists, planners, and administrators to better assess needs and impacts.

Analytical studies in FY 1974 were limited to the planning of one study (the status of the humanities in two year colleges). In FY 1975 three specific area studies, and two resouce studies will be initiated. In FY 1976 five area studies, one or two tool studies, and three to five resource studies will be undertaken. Subjects of studies include scholarly publications and journals, the supply and utilization of humanities doctorates, and programs serving young people.

4. Youth Programs ($650,000)

FY 1975 $650,000; FY 1976 $650,000; no increase.

Approximately one percent of total definite funding is being allocated to continuing and new youth-oriented programs as an important part of the Endowment's ongoing effort to reach special groups in the population not normally involved in the humanities.

a. The Youthgrants in the Humanities program, now completing its second full year of operation, has generated an enthusiastic response from the nation's youth, the Congress, and the general public, both because of the remarkable and varied projects which the program has funded and because of the fact that, while Federal and private agencies have long supported youth-initiated projects in sciences, similar support was not elsewhere available to young people desiring to work in the humanities.

Projects supported thus far cover all fields of the humanities, involving education, research, archival work, archaeology, film, and community activities in every geographic region. They include a slide and tape program on the ethnic history of Detroit, designed for use in the Detroit schools; a study of the architecture of the gold rush period in Colorado; a local history undertaken by college and high school students in Memphis, Tennessee, with similar research projects undertaken by young people in Portland, Oregon, Rock Island, Illinois, and the Cumberland Mountains; a project locating and editing songs of the American Revolution which have been published and will be used in Bicentennial festivities; a study of the works of the American painter Sheldon Peck which is culminating in an exhibition of his paintings at the Whitney Museum in New York; and a film using authentic photographs and documents depicting the history of women in America, which has been shown at the White House and is now in international distribution.

During the first two and a half years since the inception of the Youthgrants program, 898 applications have been evaluated by a special Youthgrants panel, consisting primarily of young people, and by the National Council; out of these, 101 awards were made, totaling $509,908. Approximately 50 grants are expected to be made in FY 1975 totaling $300,000. A similar level is planned for youthgrant projects in FY 1976. These will include both individual projects and several experimental projects testing new ways of involving large numbers of younger persons, especially those of high school age.

b. The other major component of the Endowment's 1976 Youth Programs is the Bicentennial Youth Debate, which seeks to promote the involvement of youth in active study of the ideas, problems, and values of American society. The program has been designed to attract a broad spectrum of participation and simultaneously encourage young people to explore in a serious way the development and dissemination of humanistic knowledge. The forensic format was selected for three reasons. First, debate over basic issues was a critical feature of the nation's beginning years. Second, through their research and subsequent discussion with their peers, students will gain a greater understanding of the nation's history. And finally, the presentation of such activities to a broader audience is expected to foster community-wide discussion on the fundamental questions underlying the birth and growth of the nation. The Debate program will consist of a series of competitions, from the local up to the national levels, which will take place in 1975-76.

The program is being administered by grants to the Speech Communication Association and will be completed in June 1976. The FY 1976 request includes $350,000 from definite funds for the operational aspects of the project while an equal amount from private gifts and matching funds will be used for scholarships for the finalists.

IV. MATCHING FUNDS

(Indefinite Appropriation)

	1974 Actual	1975 Estimate	1976	
			1976 Request	Increase or Decrease(-)
Federal matching	$6,500,000	$6,500,000	$7,500,000	$1,000,000
Gifts and donations	6,114,556	6,500,000	7,500,000	1,000,000
Carryover from previous year 1/	2,100,630	3,062,101	--	-3,062,101
Total available	14,715,186	16,062,101	15,000,000	-1,062,101

1/ These carryovers resulted primarily from gifts received too late in the fiscal year to be obligated; most of these funds, however, were already committed to approved projects.

Through matching funds provided from the indefinite appropriation the Endowment stimulates private gift-giving in support of the humanities and encourages colleges and universities, professional societies, research organizations, and other institutions with humanities programs, to develop new sources of funds and thus broaden their base of support.

The offer of gifts to the Endowment has steadily increased from $100,000 in fiscal 1967 to over $6 million in FY 1974 raised directly in response to specific matching offers made by the Endowment. These developments indicate a rapidly growing awareness of and support for Endowment activities among the general public.

The amount of money received on behalf of humanities research projects has continued to increase to the point where 60 percent of the donations received in FY 1974 were for activities like research projects which traditionally have attracted very little support. There has also been an increase this year -- of 20 percent -- in the amount of gifts received for public programs, chiefly for films, such as "War and Peace" and the "Adams Chronicles," intended for nationwide telecast. The program distribution of the gifts received during the 1973-74 period is shown below.

Gifts Received, FY 1973-74, by Program

(amounts in thousands)

	FY 1973		FY 1974	
Program	Amount	(Percent)	Amount	(Percent)
Public	$108	(2)	$1,429	(23)
Education	1,496	(34)	682	(11)
Fellowships	400	(9)	69	(1)
Research	2,305	(52)	3,614	(60)
Planning	86	(2)	320	(5)
Total	4,395	(100)	6,114	(100)

For the second time, the largest total of gifts raised last year for a single project was donated on the behalf of the New York Public Library, which, prior to the series of NEH challenge grants, had been plagued by increasing deficits and forced to curtail the operations of its incomparable research facilities. Stimulated by a challenge grant of $1 million from the Endowment last year, citizens, corporations, and organizations throughout the city and the nation matched the Federal offer 2-to-1 before the year was over, collecting $2 million in gifts.

In addition to major gifts on behalf of the New York Public Library, many other humanities projects have been made possible through the combined resources of private and public giving -- including the updating and strengthening of humanities curricula in many small colleges like Juniata in Pennsylvania, City College in Chicago, St. John's in New Mexico, Fisk in Tennessee, Centre in Kentucky, Earlham in Indiana, and Mercer County Community College in New Jersey.

A random selection of other projects supported with matching funds includes a gathering of Finnish folklore, an Appalachian film workshop, a collection of Eastern European Jewish folksong, a film preservation project, numerous scholarly studies on subjects such as white ethnic groups, recent Chinese history, Japanese foreign policy, women's education, international conferences to be held in the U.S. during the Bicentennial period, development of ethics courses at various university medical schools, archeological excavations conducted by American institutions both in this country and abroad, the editing of the papers of American statesmen like Washington, Jefferson, George Marshall, and the preparation of the Atlas of Early American History and Dictionary of American Regional English.

The FY 1975 indefinite appropriation is $6.5 million. The FY 1976 request is for $7.5 million. Although the present state of the economy makes projections of gifts risky this year, the Endowment believes it important to try to maintain the momentum in gifts which has developed the past few years. Based on recent experience

and current matching offers outstanding, we should expect approximately one-third of the $7.5 million to be used in support of film, television, community discussion, and experimental programs for the general public; one-third to support several score humanities research projects; and the remainder to be used for educational projects, especially institutional development.

Note: Tables on the following two pages provide (1) actual FY 1974 obligations from outright, gift and matching, and total funds by program element and (2) historical and projected data on the receipt of gifts and on gift and matching fund obligations by major program activity.

Summary of Grants and Awards: Fiscal Year 1974

Programs	Number of Awards 1/	Amount Obligated: Outright 2/	Amount Obligated: Gifts & Matching	Amount Obligated: Total
Public	203	$16,333,997	$2,726,498	$19,060,495
State-based programs	59	7,568,571	134,028	7,702,599
Media grants	29	3,427,949	2,457,470	5,885,419
Museum grants	92	2,808,891	135,000	2,943,891
Program development	23	2,528,586	--	2,528,586
Education	164	15,342,267	1,741,075	17,083,342
Education projects	86	3,893,083	1,053,918	4,947,001
Higher education	(60)	(2,083,095)	(732,293)	(2,815,388)
Elementary & secondary	(26)	(1,809,988)	(321,625)	(2,131,613)
Humanities institutes	2	2,759,223	--	2,759,223
Institutional grants	76	8,689,961	687,156	9,377,117
Planning	(24)	(717,046)	--	(717,046)
Program	(30)	(4,825,137)	--	(4,825,137)
Development	(22)	(3,147,778)	(687,156)	(3,834,933)
Fellowships	630	6,999,237	538,000	7,537,237
Senior	118	1,751,368	--	1,751,368
Younger humanist	115	1,208,555	--	1,208,555
Junior college teacher	55	541,398	--	541,398
Summer stipends	250	500,000	--	500,000
Selected fields	44	454,420	--	454,420
Professions	9	1,000,505	50,000	1,050,505
Summer seminars	34	1,361,841	--	1,361,841
Special	3	101,150	--	101,150
ACLS	1	--	400,000 3/	400,000
Centers for advanced study	1	80,000	88,000	168,000
Research	236	7,619,935	6,066,470	13,686,405
Research grants	127	2,558,140	5,344,003	7,902,143
Editing	36	1,917,802	189,916	2,107,718
Research centers	8	547,989	339,500	887,489
Research tools	40	1,795,174	89,050	1,884,224
Bicentennial histories	1	290,568	--	290,568
Conferences and congresses	10	282,160	80,000	362,160
State and local history	14	228,102	24,000	252,102
Planning	60	2,271,128	605,309	2,876,437
Science and human values	6	446,604	212,569	659,173
Youthgrants	35	171,622	--	171,622
Projects	18	788,631	360,000	1,148,631
Jefferson lecture activities	1	--	32,740	32,740
Program development and evaluation activities	--	864,271	--	864,271
	1,293	$48,566,564	$11,677,352	$60,243,916

1/ Includes additional awards on prior years' grants.

2/ Includes transfers from other agencies totaling $333,207 (the National Endowment for the Arts, $33,207; the Smithsonian Institution, $100,000.

3/ Matching grant for supplemental support of the post-doctoral fellowship program of the American Council of Learned Societies.

Note: Detail may not add to totals due to rounding.

NATIONAL ENDOWMENT FOR THE HUMANITIES

Gifts Received: Actual 1967-74 and Estimated 1975-76 (in thousands)

	1967-70	1971	1972	1973	1974	Total 1967-74	1975 (est)	1976 (est)
Public	$813	$221	$189	$108	$1,429	$2,760	$2,000	$2,750
Education	1,806	1,116	1,689	1,496	682	6,789	1,500	1,000
Fellowship	5	--	7	400	69	481	200	250
Research	552	1,045	1,313	2,305	3,618	8,833	2,300	3,000
Planning[1]	517	118	302	86	316	1,339	500	500
Total gifts	3,693	2,500	3,500	4,395[3]	6,114[4]	20,202	6,500	7,500
Matching funds released.	3,693	2,500	3,500	3,500	6,500[5]	19,693	6,500	7,500
Total gifts and matching funds received..	7,386	5,000	7,000	7,895	12,614	39,895	13,000	15,000
Unobligated balance from prior year	--	2,153	4,005	3,872	2,100	--	3,062	--
Adjustments[2]	-61	21	3	2	24	- 10	--	--
Total available	7,325	7,174	11,008	11,769	14,739	39,885	16,062	15,000

Obligations from Gifts and Matching Funds, FY 1967-75 (in thousands)

Public	1,078	616	626	258	2,727	5,305	4,131	5,500
Education	2,246	1,468	3,164	3,922	1,741	12,541	3,623	2,000
Fellowship	10	--	15	400	538	963	400	500
Research	1,013	829	3,311	4,405	6,066	15,624	6,881	6,000
Planning	825	256	21	684	605	2,391	1,027	1,000
Total obligated	5,172	3,169	7,136	9,669	11,677	36,824	16,062	15,000
Unobligated balance	2,153	4,005	3,872	2,100	3,062	3,062	--	--
Total available	7,325	7,174	11,008	11,769	14,739	39,885	16,062	15,000

1/ Includes unrestricted gifts 1967-73.
2/ Includes returns from prior years' grants (+) and transfers to other accounts (-).
3/ Includes $895 thousand in gifts held for matching in FY 1974.
4/ Includes $509 thousand in gifts held for matching in FY 1975.
5/ Includes funds to match gifts received in previous fiscal year.

Note: Because of rounding, detail may not add to totals.

NATIONAL ENDOWMENT FOR THE HUMANITIES

V. OBJECT CLASSIFICATION OF NEH ADMINISTRATIVE AND PROGRAM DEVELOPMENT AND EVALUATION FUNDS

		1974 ACTUAL	1975 ESTIMATE	1976 REQUEST
	PERSONNEL COMPENSATION:			
11.1	Permanent Positions	$1,402,141	$2,077,600	$2,202,900
11.3	Positions Other Than Permanent	458,093	840,600	163,800
11.5	Other Personnel Compensation	16,289	24,100	20,500
	Total Personnel Compensation	1,876,523	2,942,300	2,387,200
12.1	Personnel Benefits - Civilians	149,542	266,700	233,900
21.0	Travel and Transportation of Persons	287,468	618,900	213,900
22.0	Transportation of Things	-0-	800	1,200
23.0	Rent, Communications & Utilities	21,732	6,350	8,100
24.0	Printing and Reproduction	96,124	242,700	27,200
25.0	Other Services	83,891	340,050	35,100
26.0	Supplies and Materials	10,898	18,500	24,800
31.0	Equipment	485	-0-	5,000
	TOTAL	$2,526,663 1/	$4,436,300 2/	$2,936,400 3/

1/ Includes $864,271 obligated against Program Development and Evaluation Funds.

2/ Includes $1,634,500 current estimate of amounts to be obligated against Program Development and Evaluation Funds.

3/ Does not include Program Development and Evaluation Funds.

NATIONAL ENDOWMENT FOR THE HUMANITIES

VI. Analysis by Program Element -- Transition Period

Program and Element

DEFINITE APPROPRIATION	FY 1974 Actual	FY 1975 Estimated	FY 1976 Requested	Transition Period Requested
Public	$16,333,997	$28,100,000	$30,200,000	$9,250,000
State-based programs	7,568,571	13,500,000	15,100,000	5,050,000
Media grants.....	3,427,949	6,000,000	6,000,000	1,600,000
Museum & historical society program...	2,808,891 1/	4,500,000 1/	5,000,000	1,100,000
Program development.	2,528,586	4,100,000	4,100,000	1,500,000
Education	15,342,267	15,800,000	17,050,000	5,550,000
Institutional grants	8,689,961	7,800,000	7,800,000	750,000
Planning.....	(717,046)	(1,000,000)	(1,000,000)	(750,000)
Program.....	(4,825,137)	(4,400,000)	(3,600,000)	(--)
Developemnt.....	(3,147,778)	(2,400,000)	(3,20000)	(--)
Projects	3,893,083	5,050,000	5,050,000	3,500,000
Higher education	(2,083,095)	(2,850,000)	(2,850,000)	(1,750,000)
Elementary and secondary.....	(1,809,988)	(2,200,000)	(2,200,000)	(1,750,000)
Humanities institutes.....	2,759,223	2,200,000	3,000,000	500,000
Cultural institutions.....	- -	750,000	900,000	600,000
Consultant grants.....	- -	(2/)	300,000	200,000

1/ Includes transfer of $100,000 from the Smithsonian Institution.
2/ This program is being initiated in FY 1975 and it is anticipated that some grants will will be made with funds allocated from other Education program activities.

Analysis by Program Element -- Transition Period (continued)

Program and Element	FY 1974 Actual	FY 1975 Estimated	FY 1976 Requested	Transition Period Requested
Fellowships	$6,999,237	$9,800,000	$10,350,000	$1,250,000
Residential fellowships				
College faculty....	- -	2,600,000	2,600,000	700,000
Summer seminars.....	1,361,841	2,500,000	2,500,000	- -
Professions.....	1,000,505	1,300,000	1,650,000	350,000
Centers for advanced study.....	80,000	400,000	400,000	200,000
Independent study fellowships				
Independent.....	- -	2,600,000	2,800,000	- -
Summer stipends.....	500,000	400,000	400,000	- -
Senior.....	1,852,518	- -	- -	- -
Younger humanist....	1,208,555	- -	- -	- -
Selected fields.....	454,420	- -	- -	- -
Jr. college faculty.	541,398	- -	- -	- -
Research Grants	7,619,935	9,625,000	10,205,000	3,375,000
General research....	2,558,140	3,000,000	3,000,000	800,000
Editing.....	1,917,802	1,500,000	2,000,000	1,000,000
State and local history.....	228,102	500,000	500,000	300,000
Bicentennial history program.....	290,568	825,000	300,000	75,000
Research tools.....	1,795,174	2,200,000	2,250,000	700,000
Research centers....	547,989	600,000	1,660,000	500,000
International bicentennial conferences....	282,160	1,000,000	495,000	- -

Analysis by Program Element -- Transition Period (continued)

Program and Element	FY 1974 Actual	FY 1975 Estimated	FY 1976 Requested	Transition Period Requested
Planning	$ 2,271,128	$ 6,257,859	$ 6,695,000	$1,950,000
Development.....	1,842,113 1/	5,007,859 1/	4,795,000	1,500,000
Dissemination.....		300,000	500,000	100,000
Evaluation & analytical studies.....	98,228	300,000	750,000	250,000
Youth programs.....	330,787	650,000	650,000	100,000
Total obligations definite approp..	48,566,564	69,582,859	74,500,000	21,375,000
Unobligated balance.....	2,232,859	- -	- -	- -
Total definite appropriation available.....	50,799,423	69,582,859	74,500,000	21,375,000
INDEFINITE APPROPRIATION				
Obligation from gifts and matching funds.....	11,677,352	16,060,549	15,000,000	1,000,000
Unobligated balance	3,064,298	- -	- -	- -
Total indefinite appropriation available.....	14,741,650	16,060,549	15,000,000	1,000,000
GRAND TOTAL	65,541,073	85,643,408 2/	89,500,000	22,375,000

1/ Includes all obligations from definite program funds for miscellaneous "Program development and evaluation" activities undertaken by NEH divisions (FY 1974: $864,271; FY 1975: $1,634,500).

2/ Includes FY 1975 appropriations ($67,250,000 definite and $6,500,000 indefinite), carryover from FY 1974 ($2,232,859 definite and $3,064,299 in gifts and matching funds committed to approved project but received too late in the fiscal year to be obligated) and $333,207 transferred from other agencies.

NATIONAL ENDOWMENT FOR THE HUMANITIES

Justification for Transition Period

GENERAL

A total of $21,375,000 in definite funds and $500,000 in indefinite (matching) funds is requested to support NEH programs through the transition period July 1, 1976 - September 30, 1976. The Federal funds along with the $500,000 in expected gifts would yield a total of $22,375,000 available for obligation. This amount, which is exactly one-fourth of the FY 1976 budget request, is designed to enable the agency to continue to operate during the transition quarter at the same proportionate level as planned for the immediately preceding 12-month period.

The use of the requested funds and their allocation among the Endowment's programs is presented below. In reference to these, the following should be noted:

1. In accordance with Congressional and administration guidelines, the transition period is considered basically an extension of FY 1976. Accordingly, despite the increasing needs of humanistic institutions and the continually increasing level of applications to the Endowment, no new programs are proposed for initiation in the transition quarter; only programs already in operation in 1976 will be conducted, and the grant-making levels of these will not be expanded beyond the levels planned for 1976.

2. No significant change is presently contemplated for these programs in terms of their objectives, operational methods, types of grant recipients, or general audiences served.

3. Several established programs operating in 1976 will not require funds during the July-September period. These include:

   a. one special Bicentennial activity program -- International Conferences and Congresses -- which will receive its final funding in 1976 and be terminated, and

   b. several Fellowships and Education programs which are expected to continue in FY 1977 but whose application-grant schedule is oriented to the other nine months of the year.

4. The attached table identifies those programs for which funds are or are not required. The funding levels requested reflect the requirements of each individual program based on its planned application cycles, current trends in the quality and quantity of applications (which experience indicates will increase for the agency as a whole, by at least 20 percent over the previous year), anticipated number and amounts of grant awards, and the required expenditure schedule of funded projects.

5. Sections I-V, containing the FY 1976 budget justifications, provide extensive detail about the purposes and needs of the various NEH programs. Accordingly, that kind of information has not been included in this section. Rather, only a brief summary of the grant activity required for the transition quarter is presented.

PUBLIC PROGRAMS: $9,250,000

1. State-based programs ($5,050,000). About one-fourth of State-based programs, or 13 states, are expected to have their applications reviewed and recommended for support by the National Council during the transition period. As these are (a) larger states which will be (b) well past their first or second year of operation -- two principal criteria for determining the appropriate funding -- the recommended grants are expected to be in the $350,000-$400,000 range, requiring slightly over $5 million.

2. Media grants ($1,600,000). At least 8 major media series which have been through the research, development, and pilot phases during the previous year are expected to require funding beginning in the quarter, with an average grant of $200,000.

3. Museum and historical society program ($1,100,000). Approximately 40 grants will be made for museum personnel training and smaller exhibitions.

4. Program development ($1,500,000). Grants will be made for one state-wide library system to design a humanities program directed at community residents (@ $200,000); two major urban projects aimed at increasing public appreciation of the humanities (@ $350,000); and two grants to national organizations to develop and conduct experimental activity involving adults in humanistic study (@ $300,000).

EDUCATION PROGRAMS: $5,550,000

1. Institutional grants ($750,000). Approximately 20 planning grants in the $30,000-$50,000 range will be made to support colleges and universities desiring to design and test an improved instructional program in the humanities. (No Program or Development grants are expected to be required during the transition period).

2. Project grants ($3,500,000). Funding will be needed for approximately 10-15 grants ranging from $100,000 to $200,000, to help develop model humanities programs which can be implemented in a number of higher education institutions and to help integrate humanistic education into professional medical and technical education. About the same number of grants (10-15) will also be made in support of model curriculum, especially in history and American studies, for elementary and secondary schools.

3. Humanities institutes ($500,000). No operational grants are planned during the transition quarters to establish new institutes; however, the Endowment will continue to provide demonstration grants-- during the quarter about 20-- to help institute participants implement subsequently in their home college the interdisciplinary programs developed at the institute.

4. Cultural institutions ($600,000). Two new grants @ $300,000 will be made to museums, libraries, or other cultural institutions to help them become community education centers in the humanities.

5. Consultant grants ($200,000). Approximately 80 grants @ $2,500 will be made to colleges and universities needing outside technical assistance to help them assess and then plan improved humanities programs.

FELLOWSHIP PROGRAMS: $1,250,000

As most Fellowship programs have application-grant schedules which fall in the winter-spring period, only a relatively small amount of transition quarter funds is required for this area, and for the following three programs:

1. College faculty fellowships ($700,000). Approximately 16 institutions will receive program grants during the period to plan and offer residential, academic-year seminars providing study opportunities for 144 teachers from 2-year and small 4-year colleges. (Note: Award of fellowships to the individual participants will be made later in the year but the institutions must undertake their planning in the early fall.)

2. Fellowships for the professions ($350,000). One grant will be made to a university to provide study opportunities for 12 teachers from schools of law.

3. Centers for advanced study ($200,000). Four of the major national centers serving senior scholars will be aided in providing fellowships to enable humanists to take up residence at the centers and engage in collaborative endeavors with scientists and social scientists.

RESEARCH GRANTS: $3,375,000

1. General research ($800,000). Approximately 25 grants, ranging from $30,000-$40,000 will be required for (a) surveys of long-range research needs and (b) large-scale research projects in all fields of the humanities.

2. Editing grants ($1,000,000). About 10-15 grants averaging $75,000 will be made for the collecting of American statesmen's papers and the editing of literary texts and philosophical writings.

3. State and local history ($300,000). The request is based on 10-15 grants @ $27,000 for (a) the ordering of local and state-level historical archives and (b) the writing of interpretive histories of local communities or states.

4. Bicentennial history program ($75,000). This program was undertaken especially in observance of the Bicentennial period and is supporting the preparation of a 51-volume set of interpretive essays relating state history to national history. Program costs will peak in 1975-76, and only a small amount of the administrative costs for the final phase of the project need be covered during the transition period.

5. Research tools ($700,000). The estimate is designed to support the planning and preparation of 15 major tools such as dictionaries, atlases, and bibliographies.

6. Research centers ($500,000). Five grants @ $100,000 are planned to help major research libraries, which are considered national service facilities aiding scholars from across the country, to undertake necessary cataloguing and preservation of their collections.

PLANNING: $1,950,000

1. Development ($1,500,000). The requested amount will be needed for the Courses by Newspaper project ($600,000), for the planning and pilot of one large-scale media project in non-traditional study ($700,000); and for two grants @ $100,000 for developing new programs aimed at reaching certain population groups (e.g. senior citizens) not normally involved in the humanities.

2. Dissemination ($100,000). A variety of small grants will be made for the planning of a humanities information center and supporting the preparation and distribution of publications describing replicable humanities projects which have been successfully conducted by educational institutions and other organizations.

3. Evaluation and analytical studies ($250,000). Funds are requested to support the planning of several major data collection efforts designed to develop evaluation methodology, to evaluate NEH-funded programs, and to assess priority national needs in the humanities.

4. Youth programs ($100,000). The request will support 10 Youthgrant projects and two experimental projects to test new ways of involving large numbers of high-school students in humanities work guided by experienced professionals.

INDEFINITE (MATCHING) FUNDS: $500,000

Traditionally, a low proportion of the gifts offered to the Endowment are received in the July-September period. Thus only $500,000 is expected to be needed during the transition period to match private donations. This will result in a total of $1,000,000 being made available for research, education or public activities approved by the National Council for the Humanities.

ADMINISTRATIVE EXPENSES

FY 1975 - $10,783,000 FY 1976 - $11,000,000

Increase - $217,000

Although an increase of $217,000 is requested, it should be noted that an increase in uncontrollable costs more than absorbs this amount. Specifically, increases in rental rates, and postal rates will amount to $218,000. Therefore, considering the increased costs of all other services and equipment, the requested amount actually represents a decrease in the funds available for administration.

11.1 PERMANENT POSITIONS

FY 1975 - $6,211,300 FY 1976 - $6,415,700

Increase - $204,400

No additional personnel is requested.

11.1 PERMANENT POSITIONS
NATIONAL ENDOWMENT FOR THE ARTS

FY 1975 - $2,257,600 FY 1976 - $2,230,600

Decrease - $27,000

With the strong urging of the National Council on the Arts, the Arts Endowment staff continues to assist artists and cultural institutions to respond positively to contemporary conditions, rather than confine staff and consultant activities to the development and administration of programs which provide only financial support. For example, some of the Endowment's programs are both grant making and technical assistance in character. One being the "City Spirit" program, a bicentennial effort.

At its November 1974 meeting, the Council, partly because of severe budget limitations, recommended a reduction of the maximum grant to be awarded under the City Spirit program. At the same time, the Council recommended that professional assistance be made available to those groups which were working with all segments of a community to make the arts an integral part of a community's everyday life. A team of consultants was trained for this purpose.

Another example is the Arts Endowment staff work to see that emergency programs for unemployment incorporate the hiring of persons involved in cultural activities.

Under the direction of permanent staff, the Endowment has been working with the Manpower Administration and Economic Development Administration at the Federal level; with state arts agencies and mayors; and with artists and cultural leaders. Another example was the recent meeting of large budget dance companies to review and discuss ways to maximize earned income, marketing procedures, and spending priorities. Yet another Endowment effort is to assist its constituency in identifying new and increased sources of non-Federal support.

It is important to note that the role of the Endowment's staff must be one of being able to respond to its constituency and monitor these efforts if the role of Federal support for the arts is to be dynamic. As these leadership activities become more important, the Arts Endowment is seeking ways to increase its administrative efficiency while maintaining its high standards of professional review and administration of granting program categories.

Toward this goal, an unpaid task force on policy and operations provided recommendations to the National Council on the Arts and the Chairman. A management consultant with an outstanding career in the Federal service worked with the Chairman of the task force and proposed specific organizational recommendations. The recommendations are being implemented. For example, a position of Assistant Chairman/Management has been established and filled by an individual with a strong administrative and managerial background. Under his direction we are undergoing a reorganization of the agency's management support departments, and personnel. New procedures for speeding up cash payments on grants have been initiated. Travel authorization and voucher procedures are being improved. Research, planning, evaluation, and audit follow-up efforts are being strengthened.

With a view toward the Endowment's future we are participating with the Foundation for a feasibility study for the implementation of one or more automatic data processing systems. Should such systems be implemented, some special demands will be placed on staff to maintain parallel systems while the new systems are being checked out.

It is anticipated that applications will increase from 19,500 for Fiscal 1975 to 25,000 for Fiscal 1976, regardless of the amount of increased funding available. This is due, in large measure, to increased interest from artists, cultural institutions, local governments and community groups. In times of adversity, economic or otherwise, artistic and cultural pursuits assist in sustaining the pride and add to the spiritual strength of our people. Required physical separation from the Shared Staff of the Foundation will continue to place extraordinary demands on staff.

11.1 PERMANENT POSITIONS - NATIONAL ENDOWMENT FOR THE HUMANITIES

FY 1975 - $2,077,600 FY 1976 - $2,202,900

Increase - $125,300

No additional personnel is requested.

11.1 PERMANENT POSITIONS - SHARED STAFF

FY 1975 - $1,876,100 FY 1976 - $1,982,200

Increase - $106,100

No additional personnel is requested.

11.3 POSITIONS OTHER THAN PERMANENT

FY 1975 - $853,200 FY 1976 - $860,600

Increase - $7,400

Both the National Council on the Arts and the National Council on the Humanities are required to provide a recommendation on every application above $17,500 before any action may be taken on it. Because the number of applications is projected at 34,000 for FY 76, the Councils and the Endowments must increasingly rely on the advice of the panelists on these applications, so that each Council may concentrate on the formulation of policy and overall review of Endowment activities. Panelists provide independent judgment from the field and knowledgeable laymen. The wisdom of the Council and panels has been acknowledged by Congress, our various constituent art disciplines and the general public. Panels are being constantly examined to insure that the number of meetings be held to a minimum without impairing Endowment programs.

11.3 POSITIONS OTHER THAN PERMANENT
NATIONAL ENDOWMENT FOR THE ARTS

FY 1975 - $368,800 FY 1976 - $368,800

The use of positions other than permanent ones has enabled the Arts Endowment to call upon representatives of the field for assistance in determining realistic priorities and specific objectives of the Arts Endowment's efforts in carrying out its legislative mandate.

a. Council .....$ 27,000

The National Council on the Arts advises the Chairman on policies and directions the Arts Endowment should be taking. It also reviews panelist recommendations for funding applications. The Council assists in formulating program guidelines, changes in guidelines, and in providing general guidance to panels as to the directions each program area should be moving. The budget item represents four three-day meetings during FY 76.

b. Panelists $126,700

By law the Arts Endowment must provide a thorough and qualitative review of each and every applica-

tion submitted for possible funding regardless of the amounts available. Highly qualified professional experts from the field are selected as panelists to review and recommend what action should be taken on individual applications in accordance with legal requirements.

c. Consultants and Experts .....$ 18,000

Consultants and experts will continue to be used for relatively short periods of time to provide important advice in areas such as management, administrative, design and space planning.

d. Part-Time and Temporary $197,100

This amount represents utilizing part-time and temporary positions during FY 1976 in meeting seasonably varying manpower needs in addition to freeing up staff to provide technical assistance to the field.

11.3 POSITIONS OTHER THAN PERMANENT
NATIONAL ENDOWMENT FOR THE HUMANITIES

FY 1975 - $170,100 FY 1976 - $163,800

Decrease - $6,300

To provide compensation for the National Council on the Humanities and to permit the Endowment to draw upon the resources of the most highly qualified advisory panelists and consultants within the several fields of the Humanities, the Endowment requests the following:

a. Council Meetings .....$ 69,200

Provision is made for four four-day and one two-day meetings of the National Council on the Humanities, and two three-day committee meetings.

b. Panelists .....$ 94,600

The Endowment utilizes selection panels for the evaluation of fellowship and project proposals and for recommendations on and evaluation of programs both present and projected. The amount requested for this purpose is distributed as follows:

(1) Planning .....$ 12,000

(2) Fellowships and Stipends .....$ 16,400

(3) Research and Publication .....$ 23,400

(4) Education .....$ 19,200

(5) Public .....$ 23,600

11.3 POSITIONS OTHER THAN PERMANENT
SHARED STAFF

FY 1975 - $314,300 FY 1976 - $328,000

Increase - $13,700

This amount represents projected part-time and temporary employment costs.

11.5 OTHER PERSONNEL COMPENSATION

FY 1975 - $102,300 FY 1976 - $102,300

National Endowment for the Arts .....$ 42,400

National Endowment for the Humanities .....$ 20,500

Shared Staff .....$ 39,400

Overtime estimates are based on experience to date and reflect seasonal variations in Foundation workload.

12.1 PERSONNEL BENEFITS - CIVILIANS

FY 1975 - $691,500 FY 1976 - $710,700

Increase - $19,200

National Endowment for the Arts $258,900

National Endowment for the Humanities $233,900

Shared Staff $217,900

This amount will finance personnel benefits including contributions to the Civil Service Retirement Fund, Social Security, Health Services, and Federal Employees' Group Life Insurance.

21.0 TRAVEL AND TRANSPORTATION OF PERSONS

FY 1975 - $467,100 FY 1976 - $572,500

Increase - $105,400

To carry out the purposes of the Act in addition to staff travel, both Endowments are authorized to utilize panels of experts and

special consultants. These are essential to the projects and programs of the Endowments. They make recommendations concerning grants to be made; they help initiate new ideas, and they serve to broaden the base of private participation in the Endowment's activities.

21.0 TRAVEL AND TRANSPORTATION OF PERSONS
NATIONAL ENDOWMENT FOR THE ARTS

FY 1975 - $333,600 FY 1976 - $333,600

With rapidly rising costs of travel, accomodations, and subsistence the Arts Endowment will have to limit severely administrative travel in Fiscal 1976.

The National Council on the Arts has recommended that at least one meeting of each panel each year be held outside of Washington, D.C., in order to allow panelists to view specific program-related activities, to publicize the availability of Arts Endowment programs through media coverage of meetings and interviews, and/or to allow constituents from a region to attend meetings and provide input which will assist in making Arts Endowment programs more responsive to the needs of artists and cultural institutions. The Council's recommendation was based, in considerable measure, because of Congressional interest in improved communications with the field.

At the January 6th and 7th, 1975, meeting of the Museum Advisory Panel held in New Orleans approximately 25 guests attended portions of the meeting. These guests provided a meaningful dialogue with the panel and staff, thus providing to the Arts Endowment important response to its programs from those most affected by it. Often the traveler will make additional stops enroute to observe or counsel projects which the program has supported.

The Arts Endowment staff and consultants will continue to have to make on-site visits to evaluate current and proposed projects under consideration for funding as well as securing information from the field to assist in the planning of our programs. Travel funds will also be needed to convene meetings of the National Council on the Arts and the respective advisory panels to the Arts Endowment as required by law.

a. Staff .....$ 90,850

b. Council .....$ 39,000

c. Panelists $176,750

d. Consultants and Experts .....$ 27,000

21.0 TRAVEL AND TRANSPORTATION OF PERSONS
NATIONAL ENDOWMENT FOR THE HUMANITIES

FY 1975 - $38,000 FY 1976 - $213,900

Increase - $175,900

The requested amount is necessary for FY 1976 staff travel costs to carry out program responsibilities in supervising various Endowment programs and in maintaining liaison with the academic and cultural community. Staff travel for these purposes includes meeting with various panels, site visits with grantees and with institutions, both for purposes of evaluation for higher education-supported programs, and for evaluation of institutional capabilities in relation to other Endowment programs. Staff travel is also required for attendance at symposiums and conferences in all the fields of the Humanities, as well as in the areas of elementary and secondary education, higher education, museums, historical societies and communication media.

Travel costs of consultants and panelists have averaged $100 for each employee who traveled within a region of the United States, and $200 for each attendee at a national meeting. In addition, travel estimate includes subsistence costs at approximately $35 per day. These averages, applied to the consultant and panel use described under "Positions Other Than Permanent," are the basis for travel costs.

Staff .....$ 74,300

Council .....$ 50,300

Panelists .....$ 89,300

21.0 TRAVEL AND TRANSPORTATION OF PERSONS
SHARED STAFF

FY 1975 - $95,500 FY 1976 - $25,000

Decrease - $70,500

This reflects the necessary travel costs for the Audit staff, Grants Office personnel, and General Counsel personnel, as well as local travel cost for the entire Foundation staff.

22.0 TRANSPORTATION OF THINGS

FY 1975 - $4,500 FY 1976 - $3,700

Decrease - $800

This sum is required to cover charges for the transportation of things. It includes postage used in parcel post and reimbursement of Government personnel for the authorized movement of household effects.

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23.0 RENT, COMMUNICATIONS AND UTILITIES

FY 1975 - $1,174,450 FY 1976 - $1,403,700

Increase - $229,250

23.0 RENT, COMMUNICATIONS AND UTILITIES
NATIONAL ENDOWMENT FOR THE ARTS

FY 1975 - $7,600 FY 1976 - $7,600

This budget item will provide $2,000 for long distance telephone service and telegraph service, $3,000 for rental of the official auto for the Arts Endowment and $2,600 for rental of conference rooms.

23.0 RENT, COMMUNICATIONS AND UTILITIES
NATIONAL ENDOWMENT FOR THE HUMANITIES

FY 1975 - $5,350 FY 1976 - $8,100

Increase - $2,750

This budget item will provide $1,800 for telegrams, $2,000 for commercial long distance telephone service and telegraph service, and $4,300 for rental of equipment and conference rooms at out-of-town meetings.

23.0 RENT, COMMUNICATIONS AND UTILITIES
SHARED STAFF

FY 1975 - $1,161,500 FY 1976 - $1,388,000

Increase - $226,500

This budget provides for $920,000 for space rental, $155,000 for rental of copying equipment and other machines, $213,000 for local telephone service (including installation and service charges), long distance telephone service, telegraph service and $100,000 for postage.

24.0 PRINTING AND REPRODUCTION

FY 1975 - $239,800 FY 1976 - $145,400

Decrease - $94,400

24.0 PRINTING AND REPRODUCTION
NATIONAL ENDOWMENT FOR THE ARTS

FY 1975 - $78,200 FY 1976 - $78,200

The Arts Endowment continues to receive a high volume of requests for information. Adequate supplies of materials of various kinds giving current program information must be maintained ready for mailing. The estimate for printing and reproduction will be used for more and better program announcements, application forms, and other program management tools as programs continue and for printing the Endowment's Annual Report, as required by the Act.

24.0 PRINTING AND REPRODUCTION
NATIONAL ENDOWMENT FOR THE HUMANITIES

FY 1975 - $135,100 FY 1976 - $27,200

Decrease - $107,900

This represents the costs of the Annual Report, dissemination materials on the Endowment's programs, and letterhead and envelopes.

24.0 PRINTING AND REPRODUCTION - SHARED STAFF

FY 1975 - $26,500 FY 1976 - $40,000

Increase - $13,500

This estimate will cover the cost of printing letterheads and envelopes for the Foundation, as well as the cost of the various Office of Management and Budget and Congressional submissions and administrative forms.

25.0 OTHER SERVICES

FY 1975 - $726,250 FY 1976 - $575,900

Decrease - $155,900

25.0 OTHER SERVICES
NATIONAL ENDOWMENT FOR THE ARTS

FY 1975 - $161,900 FY 1976 - $161,900

It is estimated that our training needs for current employees will cost approximately $7,000 during FY 76. There will be particular need to train the personnel in secretarial and clerical positions in order to achieve a much higher proficiency in their work. The Arts Endowment hopes to continue participating in a joint effort

with the Humanities Endowment and the Shared Staff in sending employees to night classes in Grants Administration currently being offered by the University of Virginia's Northern Campus using the Foundation's facilities.

It is estimated that the cost of utilizing an outside addressograph service for the mailing of program guidelines, and of informative materials such as brochures and pamphlets will cost approximately $52,900 during FY 76.

Photo and art work with outside contractors will cost approximately $64,000 during FY 76. This work is necessary in order that the Arts Endowment maintain the high level of design quality so necessary to its efforts in up-grading the overall design capability of the Federal Government.

Approximately $20,000 will be needed for final conversion to a computerized mailing system and operation of that system during FY 76. Rental of facilities for film showings outside of Washington, D.C., will cost approximately $12,000. It is estimated that continued use of a press clipping service will be $6,000.

25.0 OTHER SERVICES
NATIONAL ENDOWMENT FOR THE HUMANITIES

FY 1975 - $115,850 FY 1976 - $35,100

Decrease - $80,750

The estimate for other contractual services includes the costs for employee training, $17,800; photo and art services, $1,900; addressograph, $6,600; clipping services, $3,000; robotype, $1,000; other miscellaneous services, $4,800.

25.0 OTHER SERVICES
SHARED STAFF

FY 1975 - $448,500 FY 1976 - $378,900

Decrease - $69,600

The estimate for other contractual services includes the costs for employee training, $20,000; building alterations, $100,000; machine maintenance, $26,000; cost of audit services to be provided by other agencies, $25,000; photo and art services, $5,000; robotype, $2,000; moving costs, $10,000; other miscellaneous services, $5,000; ADP development contract, $185,900.

During Fiscal Year 1976 the Foundation will continue with its program to develop and implement an automatic data processing support capability for those aspects of the Foundation operations that are practically and economically supportable through the use of ADP techniques. In effect, a management information system will be developed in support of the Endowment's and the Shared Staff

functional responsibilities. This action will be necessary in view of the expanding scope of Foundation operations and workloads, and the resulting inability of the existing manual systems and procedures to adequately cope with the management information needs of the Foundation.

In the interest of minimizing the cost involved in acquiring ADP support, the Foundation intends to utilize an existing Government computer facility and to adapt an existing grants management information system to satisfy our needs. The effort in Fiscal Year 1976 will consist of contractual support in the following activities:

**Writing and testing computer program modifications and new programs as required.

**Data base creation.

**Writing user and systems manuals.

**Training in-house staff in the use and maintenance of the system.

**Peripheral equipment acquisition such as CRT terminals and key punch machines.

**Parallel system operation.

**Cost-sharing of the computer facility.

26.0 SUPPLIES AND MATERIALS

FY 1975 - $163,000 FY 1976 - $174,500

Increase - $11,500

National Endowment for the Arts .....$ 29,700

National Endowment for the Humanities .....$ 24,800

Shared Staff $120,000

This amount will be required for books, technical publications, subscriptions, supplies for copying equipment, and "desk top" items such as pens, paper, typewriter ribbons, etc.

31.0 EQUIPMENT

FY 1975 - $149,600 FY 1976 - $35,000

Decrease - $114,600

This estimate covers the cost of various items of equipment and office machines to support the activities of the Foundation.

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

SUMMARY OF FUNDS AVAILABLE

ADMINISTRATIVE FUNDS

		1974 ACTUAL	1975 ESTIMATE	1976 REQUEST	INCREASE
Appropriation, Definite		$6,548,775	$10,500,000	$11,000,000	
Anticipated Supplemental - Pay Increase			283,000	-0-	
Unobligated Balance Prior Year		97	-0-	-0-	
Total Available for Obligation		6,548,872	10,783,000	11,000,000	217,000
Obligations	$6,507,638		10,783,000	11,000,000	
Transfer to GSA	29,951				
TOTAL		6,537,589			
Unobligated Balance		$ 11,283	$ -0-	$ -0-	

*FY 1974 $11,283 unobligated balance lapsing.

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

SUMMARY BY ORGANIZATIONAL UNIT

ADMINISTRATIVE FUNDS

	1974 ACTUAL	1975 ESTIMATE	1976 REQUEST	INCREASE (DECREASE) 1976 COMPARED WITH 1975	PAGE REF.
NATIONAL ENDOWMENT FOR THE ARTS	$2,016,168	$ 3,540,200	$ 3,512,200	$(28,000)	
NATIONAL ENDOWMENT FOR THE HUMANITIES	1,662,392	2,801,800	2,936,400	134,600	
SHARED STAFF	2,829,078	4,441,000	4,551,400	110,400	
TOTAL	$6,507,638	$10,783,000	$11,000,000	$ 217,000	

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

SUMMARY BY OBJECT CLASSIFICATION

		1974 ACTUAL	1975 ESTIMATE	1976 REQUEST	INCREASE (DECREASE) 1976 COMPARED WITH 1975
	PERSONNEL COMPENSATION:				
11.1	Permanent Positions	$4,166,720	$ 6,211,300	$ 6,415,700	$ 204,400
11.3	Positions Other Than Permanent	374,629	853,200	860,600	7,400
11.5	Other Personnel Compensation	79,308	102,300	102,300	-0-
	Total Personnel Compensation	4,620,657	7,166,800	7,378,600	211,800
12.1	Personnel Benefits - Civilian	378,502	691,500	710,700	19,200
21.0	Travel and Transportation of Persons	160,273	467,100	572,500	105,400
22.0	Transportation of Things	3,397	4,500	3,700	(800)
23.0	Rent, Communications & Utilities	607,946	1,174,450	1,403,700	229,250
24.0	Printing and Reproduction	94,617	239,800	145,400	(94,400)
25.0	Other Services	224,400	726,250	575,900	(150,350)
26.0	Supplies and Materials	146,575	163,000	174,500	11,500
31.0	Equipment	271,271	149,600	35,000	(114,600)
42.0	Insurance Claims and Indemnities	-0-	-0-	-0-	-0-
	TOTAL	$6,507,638	$10,783,000	$11,000,000	$ 217,000

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

SHARED STAFF

OBJECT CLASSIFICATION

		1974 ACTUAL	1975 ESTIMATE	1976 REQUEST	INCREASE (DECREASE) 1976 COMPARED WITH 1975
	PERSONNEL COMPENSATION:				
11.1	Permanent Positions	$1,300,055	$1,876,100	$1,982,200	$ 106,100
11.3	Positions Other Than Permanent	180,199	314,300	328,000	13,700
11.5	Other Personnel Compensation	37,748	39,400	39,400	-0-
	Total Personnel Compensation	1,518,002	2,229,800	2,349,600	119,800
12.1	Personnel Benefits - Civilians	125,629	205,400	217,900	12,500
21.0	Travel and Transportation of Persons	36,094	95,500	25,000	(70,500)
22.0	Transportation of Things	3,397	3,400	2,000	(1,400)
23.0	Rent, Communications & Utilities	546,571	1,161,500	1,388,000	226,500
24.0	Printing and Reproduction	28,007	26,500	40,000	13,500
25.0	Other Services	181,658	448,500	378,900	(69,600)
26.0	Supplies and Materials	120,384	120,800	120,000	(800)
31.0	Equipment	269,336	149,600	30,000	(119,600)
	TOTAL	$2,829,078	$4,441,000	$4,551,400	$ 110,400

ADMINISTRATIVE EXPENSES

Transition Period - $2,750,000

The following budget represents 25 percent of our total FY 76 request.

11.1 PERMANENT POSITIONS

Transition Period - $1,604,500

11.1 PERMANENT POSITIONS
NATIONAL ENDOWMENT FOR THE ARTS

July 1 - Sept. 30, 1976 - $558,000

This amount represents one-quarter of the amount requested for permanent salaries in Fiscal Year 1976. This will provide continued staff support at the same approximate level for Fiscal 1975 and Fiscal 1976. No new personnel is requested for the transition period.

11.1 PERMANENT POSITIONS - NATIONAL ENDOWMENT FOR THE HUMANITIES

July 1 - Sept. 30, 1976 - $550,900

The amount of funds requested is to cover salary costs of 130 full-time permanent employees.

11.1 PERMANENT POSITIONS - SHARED STAFF

July 1 - Sept. 30, 1976 - $495,600

To cover salary costs of 127 full-time permanent employees.

11.3 POSITIONS OTHER THAN PERMANENT

Transition Period - $211,100

11.3 POSITIONS OTHER THAN PERMANENT
NATIONAL ENDOWMENT FOR THE ARTS

July 1 - Sept. 30, 1976 - $92,000

All estimates for the transition period are twenty-five percent of the Fiscal 1976 estimate.

The Arts Endowment will continue to need to call upon highly professional representatives from the field for assistance in helping the Arts Endowment determine priorities and meet specific objectives in its efforts in carrying out its legislative mandate.

a. Council.....$ 7,000

The National Council for the Arts will meet once during the transition period to review panelist recommendations for funding applications, provide general guidance to panels, and assist formulating program guidelines.

b. Panelists.....$32,000

Panel meetings will be convened during this period to review and recommend applications for funding, in accordance with the legal requirement that the Arts Endowment provide a qualitative review of each and every application.

c. Consultants.....$ 4,000

There will be a continued need for using cosultants who will provide the Arts Endowment with professional advice regarding management, administration, design and space planning, etcetera.

d. Part-time and Temporary.....$49,000

Part-time and temporary employees will continue to be used to free up staff to provide technical assistance to the field, as well as assist in meeting seasonably varying manpower needs.

11.3 POSITIONS OTHER THAN PERMANENT
NATIONAL ENDOWMENT FOR THE HUMANITIES

July 1 - Sept. 30, 1976 - $37,100

The National Council on the Humanities meets in August. This is the heaviest meeting of the fiscal year and requires, in addition to the two-day meeting, three days of committee meetings to prepare draft motions for the Council.....$20,000

Panelist compensation is required for experts to review applications in the numerous disciplines of the humanities and to prepare motions for Council consideration in approving grant awards..$17,100

11.3 POSITIONS OTHER THAN PERMANENT
SHARED STAFF

July 1 - Sept. 30, 1976 - $82,000

This amount will cover the cost of temporary/part-time personnel.

11.5 OTHER PERSONNEL COMPENSATION

Transition Period - $27,500

National Endowment for the Arts.....$11,000

National Endowment for the Humanities.....$ 6,600

Shared Staff.....$ 9,900

This amount will be needed for the payment of overtime to employees during the transition period, in order to meet seasonal variations in the Foundation's workload.

12.1 PERSONNEL BENEFITS - CIVILIANS

Transition Period - $180,400

National Endowment for the Arts.....$64,000

National Endowment for the Humanities.....$61,900

Shared Staff.....$54,500

This amount will finance personnel benefits including contributions to the Civil Service Retirement Fund, Social Security, Health Services, and Federal Employees' Group Life Insurance.

21.0 TRAVEL AND TRANSPORTATION OF PERSONS

Transition Period - $136,100

21.0 TRAVEL AND TRANSPORTATION OF PERSONS
NATIONAL ENDOWMENT FOR THE ARTS

July 1 - Sept. 30, 1976 - $83,000

The Arts Endowment is severely limiting its administrative travel during Fiscal 1975, 1976, and the transition period. It must, however, continue to convene Council and Panel meetings, as well as have staff and consultants make on-site visits to evaluate current and proposed projects under consideration for funding and to secure information from the field to assist in the planning of our programs. Estimates are approximately one-quarter of Fiscal 1976 estimates.

a.	Staff	$22,000
b.	Council	$ 9,000
c.	Panelists	$44,000
d.	Consultants and experts	$ 8,000

21.0 TRAVEL AND TRANSPORTATION OF PERSONS
NATIONAL ENDOWMENT FOR THE HUMANITIES

July 1 - Sept. 30, 1976 - $46,100

Staff travel is required to visit grantees to evaluate projects, perform site visits to evaluate staff capabilities and facilities of grant applicants, and to attend professional meetings.....$19,100

Council travel is required to attend Council and committee meetings to evaluate proposals and to approve grant awards...$12,800

Panelist travel is provided for experts to attend meetings to evaluate grant applications.....$14,200

21.0 TRAVEL AND TRANSPORTATION OF PERSONS
SHARED STAFF

July 1 - Sept. 30, 1976 - $ 7,000

The amount reflects the necessary travel costs for the Audit staff, Grants Office personnel, and General Counsel personnel, as well as local travel cost for the entire Foundation staff.

22.0 TRANSPORTATION OF THINGS

Transition Period - $ 2,700

This sum is required to cover charges for the transportation of things. It includes postage used in parcel post and reimbursement of Government personnel for the authorized movement of household effects.

National Endowment for the Arts.....$ 1,000

National Endowment for the Humanities.....$ 1,200

Shared Staff.....$ 500

23.0 RENT, COMMUNICATIONS AND UTILITIES

Transition Period - $353,900

23.0 RENT, COMMUNICATIONS AND UTILITIES
NATIONAL ENDOWMENT FOR THE ARTS

July 1 - Sept. 30, 1976 - $ 2,000

This budget item, which is approximately twenty-five percent of the Fiscal 1976 estimate, will provide for continued long distance telephone service and telegraph service, rental of the official auto for the Arts Endowment, and rental of conference rooms.

23.0 RENT, COMMUNICATIONS AND UTILITIES
NATIONAL ENDOWMENT FOR THE HUMANITIES

July 1 - Sept. 30, 1976 - $ 4,800

Rental of conference rooms at sites outside Washington, D.C. for meetings of committees and panels; long-distance telephone charges when FTS is not available; telegrams when use of postal service is not feasible.

23.0 RENT, COMMUNICATIONS AND UTILITIES
SHARED STAFF

July 1 - Sept. 30, 1976 - $347,100

This budget provides for $230,000 for space rental, $38,800 for rental of copying equipment and other machines, $53,300 for local telephone service (including installation and service charges), long distance telephone service, telegraph service and $25,000 for postage.

24.0 PRINTING AND REPRODUCTION

Transition Period - $37,000

24.0 PRINTING AND REPRODUCTION
NATIONAL ENDOWMENT FOR THE ARTS

July 1 - Sept. 30, 1976 - $19,000

It is estimated that the cost for printing materials, in order to respond to the large number of requests from the field, will be approximately $19,000. Included in these materials are program guidelines, application forms, and informative brochures and pamphlets.

24.0 PRINTING AND REPRODUCTION
NATIONAL ENDOWMENT FOR THE HUMANITIES

July 1 - Sept. 30, 1976 - $8,000

Printing is required for preparation of material to the National Council on the Humanities and press release on grant awards.

24.0 PRINTING AND REPRODUCTION - SHARED STAFF

July 1 - Sept. 30, 1976 - $10,000

This estimate will cover the cost of printing letterheads and envelopes for the Foundation, as well as the cost of the various Office of Management and Budget submissions, and administrative forms.

25.0 OTHER SERVICES

Transition Period - $148,900

25.0 OTHER SERVICES
NATIONAL ENDOWMENT FOR THE ARTS

July 1 - Sept. 30, 1976 - $41,000

The estimate for this object class is approximately twenty-five percent of the Fiscal 1976 estimate. The transition period comes at a time when those employees who are attending outside training courses sponsored by the Arts Endowment are registering for fall classes. It is estimated that $4,000 for training will be needed during this period so that we can assist our employees in increasing their job skills. Approximately $19,000 will be needed for mailing program guidelines and informative brochures and pamphlets by our computerized mailing system.

The continued need for high quality photo and art work from outside contractors will cost $13,000, assuring a continuation of our efforts in up-grading the design capability of the Federal Government. We will continue to have to rent facilities for film showings outside of Washington, D.C. It is estimated that this cost will be $3,000. The need for continuing our press clipping service during the transition period will cost $2,000.

25.0 OTHER SERVICES
NATIONAL ENDOWMENT FOR THE HUMANITIES

July 1 - Sept. 30, 1976 - $13,100

Other contractual services are required for personnel development training; addressograph service; photo and art services for design and layout of Council material, and robotype service for repetitive typing when many originals are required.

25.0 OTHER SERVICES
SHARED STAFF

July 1 - Sept. 30, 1976 - $94,800

The estimate for other contractual services includes the costs for employee training, $5,000; building alterations, $25,000; machine maintenance, $6,500; cost of audit services to be provided by other agencies, $6,300; photo and art services, $1,300; robotype, $500; moving costs, $2,500; other miscellaneous services, $1,200; ADP development contract, $46,500.

26.0 SUPPLIES AND MATERIALS

Transition Period - $40,100

National Endowment for the Arts.....	$ 7,000
National Endowment for the Humanities..	$ 3,100
Shared Staff.....	$30,000

This amount will be required for books, technical publications, subscriptions, supplies for copying equipment, and "desk top" items such as pens, paper, typewriter ribbons, etc.

31.0 EQUIPMENT

Transition Period - $ 7,800

This estimate covers the cost of various items of equipment and office machines to support the activities of the Foundation.

SUMMARY OF FUNDS AVAILABLE

ADMINISTRATIVE FUNDS

	TRANSITION PERIOD July 1 - Sept. 30, 1976 REQUEST
Appropriation, Definite	$ 2,750,000
Anticipated Supplemental - Pay Increase	-0-
Unobligated Balance Prior Year	-0-
Total Available for Obligation	2,750,000
Obligations	2,750,000
Unobligated Balance	$ -0-

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

SUMMARY BY ORGANIZATIONAL UNIT

ADMINISTRATIVE FUNDS

	TRANSITION PERIOD July 1 - Sept. 30, 1976 REQUEST
NATIONAL ENDOWMENT FOR THE ARTS	$ 878,000
NATIONAL ENDOWMENT FOR THE HUMANITIES	734,100
SHARED STAFF	1,137,900
TOTAL	$ 2,750,000

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NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

SUMMARY BY OBJECT CLASSIFICATION

		TRANSITION PERIOD - JULY 1 - SEPTEMBER 30, 1976			
	PERSONNEL COMPENSATION:	NATIONAL ENDOWMENT FOR THE ARTS	NATIONAL ENDOWMENT FOR THE HUMANITIES	SHARED STAFF	TOTAL
11.1	Permanent Positions	$558,000	$550,900	$ 495,600	$1,604,500
11.3	Positions Other Than Permanent	92,000	37,100	82,000	211,100
11.5	Other Personnel Compensation	11,000	6,600	9,900	27,500
	Total Personnel Compensation	661,000	594,600	587,500	1,843,100
12.1	Personnel Benefits - Civilian	64,000	61,900	54,500	180,400
21.0	Travel and Transportation of Persons	83,000	46,100	7,000	136,100
22.0	Transportation of Things	1,000	1,200	500	2,700
23.0	Rent, Communications & Utilities	2,000	4,800	347,100	353,900
24.0	Printing and Reproduction	19,000	8,000	10,000	37,000
25.0	Other Services	41,000	13,100	94,800	148,900
26.0	Supplies and Materials	7,000	3,100	30,000	40,100
31.0	Equipment	-0-	1,300	6,500	7,800
42.0	Insurance Claims and Indemnities	-0-	-0-	-0-	-0-
	TOTAL	$878,000	$734,100	$1,137,900	$2,750,000

COMMISSION OF FINE ARTS

SALARIES AND EXPENSES

Appropriation/ Total available, 1974		$153,000
Appropriation/ 1975	$171,000	
Proposed supplemental for civilian pay cost increase (October pay raise)	5,000	
Total available, 1975		176,000

Summary of Increases and Decreases, 1976

Administration:	Base for 1976	Increase 1976	
Increase in Commission's Operating Expenses	$176,000	$+24,000	$24,000
Budget estimate, 1976			200,000

Analysis by Activity

Activity	F.Y. 1974 Amount Available	F.Y. 1975 Amount Available	F.Y. 1976 Estimate	Increase (+) or Decrease (-) 1976 Compared with 1975
Administration	$152,338	$176,000	$200,000	$+24,000
Unobligated balance lapsing	662	---	---	---
Total	153,000	176,000	200,000	+24,000

JUSTIFICATION

Administration: Fiscal year 1975, $176,000; fiscal year 1976, $200,000; increase, $24,000. The increase consists of:

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
$+20,500	---	$184,500	7	To provide for increased salary, printing and related staff support.
+ 3,500	---	15,500		Increased reimbursement for adjusted space, services and facilities provided by GSA.
+24,000		200,000		

Program and Financing (in thousands of dollars)

		1974 actual	1975 estimate	1976 estimate
Program by activities:				
	1. Administration (total costs)....	142	176	200
	Change in selected resources, (undelivered orders).....	10	---	---
10	Total obligations.....	152	171	200
Financing:				
25	Unobligated balance lapsing.....	1	---	---
	Budget authority (appropriation).....	153	176	200
40	Appropriation.....	153	171	200
44.20	Proposed supplemental for civilian pay raise.....	---	5	---
Relation of obligations to outlays:				
71	Obligations incurred, net.....	152	176	200
72	Obligated balance, start of year.....	23	25	21
74	Obligated balance, end of year.....	-25	-21	-31
77	Adjustment in expired accounts.....	-5	---	---
90	Outlays.....	145	175	190
91.20	Outlays from civilian pay raise supplemental.....	---	5	---

Object Classification (in thousands of dollars)

Personnel compensation:				
11.1	Permanent positions.....	104	126	126
11.3	Positions other than permanent.....	11	2	3
	Total personnel compensation.....	115	128	129
Personnel benefits:				
12.1	Civilian.....	9	10	11
21.0	Travel and transportation of persons..	3	4	5
23.0	Rent, communications and utilities....	3	14	20
24.0	Printing and reproduction.....	12	8	21
25.0	Other services.....	9	8	10
26.0	Supplies and materials.....	1	3	3
31.0	Equipment.....	---	1	1
99.0	Total obligations.....	152	176	200

Personnel Summary

Total number of permanent positions.....	7	7	7
Full-time equivalent of other positions....	1	---	---
Average paid employment.....	7	7	7
Average GS grade.....	10.28	10.28	10.30
Average GS salary.....	$17,632	$17,900	$17,900

Program and Financing (in thousands of dollars)

		July 1 - Sept. 30, 1976
Program by activities:		
	1. Administration (total costs).....	45
10	Total obligations.....	45
Financing:		
40	Budget authority (appropriation).....	45
Relation of obligations to outlays:		
71	Obligations incurred, net.....	45
74	Obligated balance, end of year.....	-2
90	Outlays.....	43

The Commission of Fine Arts was established in 1910 to fill the need for a permanent advisory agency whose members would be qualified to make available to the Government expert opinion on questions of art arising in the course of administration. As an independent agency, it is intended to serve a two-fold purpose; first, to give advice concerning aesthetic standards and matters of civic design involved in the orderly development of the District of Columbia; and second, to furnish expert opinion on questions of art to the President, to the Congress and its committees, and to the heads of various departments and agencies of the Federal and District Governments.

The Commission is composed of seven members, appointed by the President, who serve without compensation, receiving only actual travel expenses incurred in attending meetings. Since the Commission was established in 1910, more than 75 distinguished architects, landscape architects, painters, sculptors, and laymen in the field of fine arts have given freely to the Government the benefit of their experience and professional skills in advising the President, the Congress, and government agencies on matters involving the fine arts.

The specific functions of the Commission are as follows:

1. To advise generally upon questions of art when requested to do so by the President, heads of executive departments or by any Committee by either House of Congress.

2. To advise specifically on all plans for parks, public buildings, and other structures constructed by executive departments or the District of Columbia.

3. To advise upon location of statues, fountains, and monuments in public squares, streets and parks in the District of Columbia and upon the selection of models for the statues, fountains, and monuments erected under the authority of the United States and upon the selection of artists for execution of the same.

4. To regulate the height, exterior design and construction of private and semi-public buildings in certain areas of the National Capital. This action requires review and recommendation of the Mayor of the District of Columbia on the merits of designs submitted for building permits.

5. **To advise, as necessary, on projects of an important Federal character outside of the District of Columbia, and to render opinions on the merit of designs for medals, insigina, coins, or other art projects created and produced by the executive department.**

The Commission of Fine Arts is requesting an appropriation of $200,000 for fiscal year 1976 to finance the expenses of the seven members of the Commission and the salaries and related costs necessary to finance a supporting staff of seven permanent positions. The increases requested for fiscal year 1976 are as follows: $2,000 for increased cost of salary and benefits for within-grade raises and promotions of the permanent staff; $1,000 for increased travel and related staff support; $6,000 for increased cost of rent and communications ($3,500 for adjusted GSA space rental); an increase of $13,000 for necessary printing costs, and $2,000 for other services. It is necessary for the Commission to have this requested increase in operating funds in this Bicentennial Era to enable the staff to properly carry out its support function of the advisory agency.

Salaries and Expenses

Transition Quarter
7/1/76 through 9/30/76

$45,000 is requested for salaries and expenses necessary to conduct the functions of the Commission for three months. Obligations are incurred at a static rate throughout the year. This request represents approximately 25 per cent of the fiscal year 1976 request.

PENNSYLVANIA AVENUE DEVELOPMENT CORPORATION

SUMMARY OF JUSTIFICATION BY ACTIVITY

This year, operations of the Pennsylvania Avenue Development Corporation are presented by an activities breakdown, as shown below, for both appropriation justification and agency management purposes. In general, the increase in the amount of appropriated funds requested of $432,000 (an of ten in the number of permanent positions) reflects an anticipated shift in the Corporation's operations from being principally of a planning nature to actually undertaking development. This involves moving from development planning and conceptualization to detailed operational, engineering, and design functions such as: appraising specific property acquisitions; preparing detailed site plans and design controls; drafting leases, contracts and other legal documents; updating and revising economic and market plans; preparing of specific construction plans, drawings, test borings and soil tests; and, many other developmental activities.

Following is a narrative explanation of the activities and increases in appropriations requested For Fiscal Year 1976:

1. Executive Direction: The appropriations requested for Fiscal Year 1976 for this activity is $276,000, an increase of $48,000 over Fiscal Year 1975. For Fiscal Year 1976 this activity will have ten permanent positions, an increase of two over Fiscal Year 1975. The two positions to be filled are attorney positions whose duties are made necessary by the increased need for preparation of and review of legal documentation after the Corporation moves into development phase. Functions included within this activity are the Office of Executive Director, the General Counsel (Assistant Director - Legal), Administration, Public Information and Liaison.

2. Project Planning: $536,000 is requested to be appropriated for Fiscal Year 1976 an increase of $63,000 over the amount made available for Fiscal Year 1975. This amount includes an increase of five permanent positions for the activity for a total of 13 for Fiscal Year 1976. The additional staff are to carry out historic preservation, construction and engineering supervision, and clerical work necessitated by moving into implementation of development.

3. Development: This activity has the largest increase in appropriations requested, an increase of $321,000 for a total of $444,000 for Fiscal Year 1976. This represents an increase in the professional staff of three positions for a total of seven for the year. The new positions are needed to carry out real estate acquisition, financial management and business relocation functions. The major portion of the $321,000 requested will be for contract services for carrying out real property acquisition appraisals, updated economic analysis and financial management.

REQUEST FOR APPROPRIATIONS, FISCAL YEAR 1976

SUMMARY OF ACTIVITIES

	FY 74	FY 75	INCREASE	FY 76
ACTIVITIES ($ in Thousands)				
1. Executive Direction	164	228	+ 48	276
2. Project Planning	528	473	+ 63	536
3. Development	158	123	+321	444
TOTAL APPROPRIATIONS	850	824	+432	1256
RECONCILIATION WITH OBLIGATIONS				
Unobligated balance at start of year	1/	33	- 33	-
Unobligated balance at end of year	- 33	-	-	-
Unobligated balance lapsing	- 3	-	-	-
TOTAL OBLIGATIONS	814	857	+399	1256
PERMANENT POSITIONS BY ACTIVITY				
1. Executive Direction	6	8	+ 2	10
2. Project Planning	7	8	+ 5	13
3. Development	2	4	+ 3	7
TOTAL PERMANENT	15	20	+ 10	30

1/ $350,000 for FY 73 was made available 6/30/73 (to remain available until expended) and has been added to $500,000 appropriated for FY 74.

I. APPROPRIATION JUSTIFICATION

The Pennsylvania Avenue Development Corporation completed preparation of "The Pennsylvania Avenue Plan - 1974," which was approved by the Corporation's Board and published on March 18, 1974. In accordance with the Pennsylvania Avenue Development Corporation Act, the plan was submitted to and reviewed by the Mayor of the District of Columbia and the Secretary of the U.S. Department of the Interior for a period of ninety days. During this period, the District of Columbia Government held a series of public workshops and an all-day public hearing. In the light of comments and recommendations received by the Pennsylvania Avenue Development Corporation from the District of Columbia and the Secretary of the Interior, the Pennsylvania Avenue Development Corporation prepared a revised plan and submitted, for review and clearance, an Environment Impact Statement under the provisions of the National Environmental Policy Act. After completing these necessary steps, the Pennsylvania Avenue Development Corporation submitted its formally recommended plan for the development of Pennsylvania Avenue, "The Pennsylvania Avenue Plan - 1974," to the Congress on November 19, 1974, together with supplementary technical documentation.

Under the Pennsylvania Avenue Development Corporation Act, the Corporation's recommended plan must be reviewed for sixty legislative days by the U.S. House of Representatives and by the U.S. Senate. If neither house passes a resolution in opposition to the plan by the end of the sixty legislative day review period, the plan automatically goes into effect. If either house opposes the plan, either as currently proposed or as modified by the Congress, the plan will cease to exist and property owners will be free to proceed, or not to proceed, with such plans as they may see fit. The Corporation recommends approval of the plan so that implementations can begin the plan which will assure development appropriate to the Capital of a great nation.

The appropriations requested are to fund the salaries and expenses of the Corporation for fiscal year 1976. The increases over amounts requested to be appropriated for fiscal year 1975 reflect the Corporation's expectation that it will move into the project implementation stage during fiscal year 1976.

The $1,256,000 requested in FY 76 for salaries and expenses is an increase of $432,000 over the sum appropriated in this fiscal year. The increase largely results from expanded staffing, both permanent and temporary or intermittent, necessary to carry out the initial stages of implementation of the plan. In addition to increased salary costs for a larger staff, the FY 76 request includes funds to provide the administrative support, office space, and supplies for a larger in-house staff.

An expanded staff in FY 76 will be required for: 1) detailed architectural and design services for individual projects; 2) continuing economic analyses of development; 3) financial and budget management;

and, 4) increased administration, legal work, and regulation of private development.

Even though the Corporation is planning a moderate increase in staff size, the new level is not in contemplation of doing the entire implementation of the plan on an "in-house" basis. To do so would require an even greater staff, in view of the size of the overall proposed project. Accordingly, the staff size requested for FY 76 is sufficient to provide technical expertise and guidance for general development, as well as complete service for special aspects of the plan undertaken entirely by the Corporation. In lieu of additional permanent staff, the Corporation intends to rely on external contracts, reimbursable services from other agencies, and the hire of a few experts and consultants on a temporary or intermittent basis. (Authority for such hirings was requested by legislative amendments proposed by the Corporation in FY 74, and recently enacted by Congress as Public Law 93-427, 88 STAT. 1170, October 1, 1974).

The salaries and expenses funds requested for FY 76 have been assessed in accordance with the three activities the Corporation intends to perform during the next fiscal year. These activities and the proposed use of the fuuds are analyzed below.

A. Executive Direction - This activity will have 10 permanent positions assigned to it, including the Executive Director, and the Assistant Director-Legal. Functions within this activity are to include general policy direction and control of the Corporation, personnel and support administration, public information and liaison and legal work. Six of the ten positions are currently filled, and duties similar to those being discharged this year will be continued during FY 76. However, an administrative assistant and an additional secretary would be hired next year to assist with increased work in administration.

Positions are being created for two mid-level attorneys to establish a legal staff capable of handling the various transactions resulting from property acquisition and management, preparation and application of development regulations and zoning changes, legislative drafting and relations, administrative law compliance, and coordination with the Department of Justice on condemnation and litigation. Only one attorney position would be filled at the beginning of the fiscal year; the other position would be filled by a law clerk until the volume of work justified an experienced attorney.

B. Project Planning - This activity will be responsible for detailed architectural and engineering planning and, where necessary, design. Public projects undertaken by the Corporation and the residential-mixed use complex, will receive a higher degree of design input than privately assumed projects. However, private developments will require professional guidance as well, to ensure conformity with the development plan.

A major function within this activity will be work on the preservation and restoration of historic and architecturally significant structures. To assist with this task, the addition of a historic preservation and fine arts planner is proposed for FY 76, as one of the new positions.

To ensure continuing conformity of private development with the plan, the Corporation proposes to publish extensive regulations as authorized by the enabling act. A project conformance Review Board comprised of two professional members of the staff, and three appointed by the Board of Directors from private life will review for the Corporation submissions of private developers. The private members will be compensated on a per diem basis for work on the Review Board. In addition to reviewing the project proposals and designs of developers, the Board and Corporation staff will assist developers in expediting required paperwork and review by other agencies.

Under the new authority to hire experts and consultants, the Corporation in this activity's budget provides for two highly qualified consultant architects to be hired on an intermittent basis (not exceeding 130 days per year). Two lower rank architects to be hired on a temporary basis are also funded in this estimate, for work on the complicated design for the residential-mixed use development. (This development may include the National Archives underground storage space).

To serve the functions in this activity, the Corporation provides thirteen permanent positions; which includes the FY 76 addition of a historic preservation specialist, two construction managers, one engineer, one scheduling and programming technician, one draftsman, one urban planner, and one secretary.

C. Development - This activity will supervise use of the capital outlay funds described in detail in the following section. Seven permanent staff positions are contemplated for the activity to handle financial management, relocation assistance, operation of acquired property, real estate transactions, and attendant secretarial support. Almost all of these positions are presently non-existant within the Corporation. Functions under this activity will be closely linked with the work in Project Planning, with the latter having most responsibility for actual supervision of construction.

The relocation function will consist of overseeing and managing implementation of the Uniform Relocation Assistance and Real Property Acquisition Policies Act. The Corporation will enter into a contractual arrangement to actually administer the relocation with either another agency, e.g., the Redevelopment Land Agency, or with a private concern.

Operation of acquired property will also be done through a contractual arrangement, however, it will be supervised and controlled by staff within this activity. It will include providing for the servicing, maintenance and operation of property, as well as administration of leases.

The real estate staff will review and evaluate real estate appraisals, direct and supervise the acquisition of property by negotiation, develop and prepare financial and economic analyses relating to property dispositions, and direct land marketing.

Functions of the Pennsylvania Avenue Development Corporation during FY 76, provided that Congress approves the plan, which will be funded by the requested appropriations include: detailed property surveys, title searches, property appraisals and commencement of real property acquisition by negotiation and, if necessary, by condemnation; detailed site planning, design, and architectural conceptualization of final design specifications; analysis of underground utility networks; sub-soil and hydrostatic tests and test borings; overseeing of architectural re-design of the Lansburgh's temporary relocation facility and initiation of business relocation activities; completing refinement of analysis of markets for completed development, demolition and site clearances of property needed by Phase One construction activity; letting of contracts and initiation of work on major public facilities, including the re-building of Pennsylvania Avenue; initiation of national program to market development parcels to the broadest possible number of potential developers; execution of appropriate agreements with District of Columbia Government concerning streets, alleys, public right-of-ways and air rights, police and fire services, zoning provisions, disposition of surplus property, traffic routing during construction and permanent traffic patterns, issuance of building permits and building inspections, and coordination with METRO and RLA construction; and many other activities related to the initiation of a major in-city development program.

Upon completion of the Congressional review period, providing that no resolution opposing the plan has been passed, the Corporation will seek amendments to better effectuate implementation of the plan as well as approval of a financing plan and funds with which to carry out the plan being enacted by the Congress. No such funds are included in this request for appropriations.

II. STATUS OF AUTHORIZATIONS

From the date of establishment on October 27, 1972, the Corporation has been funded under the authorization provided in Section 17 of Public Law 92-578 (86 STAT. 1275), as amended, Public Law 93-427 (88 STAT. 1170; October 1, 1974). The original language of that section authorized to be appropriated not to exceed $1,000,000 for the preparation of the development plan. This language was amended by Public Law 93-427, supra, to include "operating and administrative expenses," allowing the Corporation to continue its work after the plan itself had been drafted and forwarded to Congress for review. The same amendment also raised the ceiling for appropriations to its current level of not to exceed $1,750,000.

A total of $1,674,000 has been appropriated through the current fiscal year within the $1,750,000 ceiling authorized. The remaining $76,000 is insufficient to cover the FY 76 appropriations requests. Accordingly, the Corporation is in the process of submitting proposed draft legislation to authorize further appropriations for operating and administrative expenses of the Corporation reflected in the salaries and expenses budget request for FY 76 and the period July 1 through September 30, 1976. The proposed draft legislation would make appropriations contingent upon the acceptance of the development plan by Congress, presently considering the plan in accordance with Section 5(d) of Public Law 92-578, supra.

III. CONTRACTS

Essential planning work and administrative support required to produce the "Pennsylvania Avenue Plan - 1974" were provided by the Corporation's staff of fifteen permanent employees. However, certain technical, economic and planning data and services were obtained through contracts with private firms or individuals who had the necessary expertise and the capability to meet the Corporation's stringent timetable.

A synopsis of the contracts executed by the Corporation in 1974 follows:

1. Artist's Renderings - $1,000; to prepare a number of illustrations depicting certain areas of the proposed development.

2. Draft Environmental Impact Statement - $50,000; to carry out scientific and technical studies and to direct and coordinate the overall preparation of a draft environmental impact statement.

3. Archeological Study - $350; to prepare a study of the probable impact of proposed development on archeological and cultural remains which may exist in the area, for inclusion in environmental impact statements.

4. Landscape Design - $35,000; to study and prepare a landscape and streetscape design for the treatment of Pennsylvania Avenue and adjacent open areas, including the illustration of activity areas, circulation patterns, paving and sidewalks.

5. Lighting Design - $17,000; to prepare a schematic lighting design for Pennsylvania Avenue, special open areas and indirect lighting of significant buildings.

6. Housing Model - $2,000; to prepare a three dimensional model of the proposed housing-mixed use complex specified in the development plan.

7. Model of Monumental District of Washington - $17,500; to repair, update, and prepare additions to an existing table model of the downtown, monumental district of the City of Washington.

8. Amendment to Traffic Circulation Study - $7,500; to prepare additional proposals and analyses for changing existing traffic circulation in the PADC area and contiguous surroundings, both for the development plan, and for environmental impact statements.

9 and 10. Building Restoration Contracts (2) - $14,550 (total); to study and estimate the costs and methods for restoring the Willard Hotel and a number of other significant buildings in the development area.

11. Final Environmental Impact Statement - $61,700; to develop additional data in response to comments on draft EIS, prepare substantial portions of the final statement, coordinate the compilation of the work, print and furnish the required number of copies.

12. Engineering Study - $30,000; to prepare an engineering feasibility study on certain proposed street construction, and feasibility and order-of-magnitude cost estimates on the proposed National Archives subsurface expansion.

13. Amendment to Economic Studies Contract - $10,000; to prepare additional economic data on projected uses in the development area and the social-economic effects thereof, for use in environmental impact statements and for financial projections in the development area.

14. Design and Illustration of Printed Plan - $1,500; to render advice on design, layout, mock-up and to prepare illustrative materials for use in the printing of the final development plan.

15. Development Financing - $16,500; to prepare certain development financing projections, cash-flow analyses, and to review certain of the Corporation's financing estimates and data.

The foregoing list describes contracts executed during calendar year 1974, totalling $264,600, some of which were obligated or paid in FY 74. In addition to the contracts listed above, the Corporation is planning the execution of additional agreements during the remainder of FY 75. The most significant of these is a contract estimated at $100,000 for a detailed topographic and utility survey for the development area. This survey would furnish vital engineering data never before compiled for the area within the Corporation's jurisdiction. The Corporation also envisions some additional contracting of lesser magnitude for project designs and historic preservation, but the exact nature of these needs have not yet been determined.

The appropriations request for fiscal year 1976 provides for a continuation of external contracting for specialized information and services, within the object calssification of "other services", budgeted at $440,000. That figure includes an estimated $75,000 for GSA reimbursable support (including specialized accounting and real property transaction assistance); $15,000 for a mandatory audit by the General Accounting Office, reimbursable under the Government Corporation Control

Act; an estimated $195,000 for economic studies and assistance related to retailing, and property development and financing; an estimated $150,000 for special planning contracts in areas such as traffic, civil engineering, surveying, historic preservation and preparation of aesthetic guidelines; and, $5,000 for miscellaneous support services not provided by GSA.

SALARIES AND EXPENSES

For [necessary] salaries and expenses, as authorized by section 17 of Public Law 92-578 as amended, [$824,000: Provided, That the funds appropriated in this paragraph shall be available only upon enactment into law of authorizing legislation] $1,256,000.

For "salaries and expenses" for the period July 1, 1976, through September 30, 1976, $314,000.

(Department of the Interior and Related Agencies Appropriation Act, 1975. Additional authorizing legislation to be proposed for $1,400,000 for the fiscal year ending June 30, 1976, and for $350,000 for the period July 1, 1976, through September 30, 1976.)

SALARIES AND EXPENSES

Program and Financing (in thousands of dollars)

Identification code 32-08-0100-0-1-909	1974 actual	1975 estimate	1976 estimate
Program by activities:			
1. Executive direction	612	847	416
2. Project planning	---	---	403
3. Development	---	---	312
Total program costs, funded 1/	612	847	1,131
Change in selected resources (undelivered orders)	202	10	125
10. Total obligations	814	857	1,256
Financing:			
21. Unobligated balance available, start of year	-350	-33	---
24. Unobligated balance available end of year	33	---	---
25. Unobligated balance lapsing	3	---	---
40. Budget authority (appropriation)	500	824	1,256
Relation of obligations to outlays:			
71. Obligations incurred, net	814	857	1,256
72. Obligated balance, start of year	---	258	270
74. Obligated balance, end of year	-258	-270	381
90. Outlays	556	845	1,145

1/ Includes capital outlay as follows: 1974, $21 thousand; 1975, $8 thousand; 1976, $25 thousand.

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 32-08-0100-0-1-909	1974 actual	1975 estimate	1976 estimate
Personnel compensation:			
11.1 Permanent positions	197	350	480
11.3 Positions other than permanent	11	15	75
11.5 Other personnel compensation	2	---	---
11.8 Special personal services payments	---	15	36
Total personnel compensation	210	380	591
Personnel benefits:			
12.1 Civilian	16	30	46
13.0 Benefits for former personnel			
21.0 Travel and transportation of persons	11	23	29
22.0 Transportation of things	1	3	3
23.0 Rent, communications, and utilities	26	46	62
24.0 Printing and reproduction	26	30	40
25.0 Other services	487	321	440
26.0 Supplies and materials	16	16	20
31.0 Equipment	21	8	25

99.0 Total obligations	814	857	1,256
Total number of permanent positions ..	15	20	30
Full-time equivalent of other positions	1	1	4
Average paid employment	11	18	27
Average GS grade	11.60	11.85	11.60
Average GS salary	$19,585	$20,847	$20,558

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DETAIL OF PERMANENT POSITIONS
(By Activity)

Grade	Title	Executive Direction	Project Planning	Development
GS-17	Executive Director	1		
GS-16	Assistant Director/Legal	1		
GS-16	Assistant Director/ Real Estate & Finance			1
GS-16	Director, Design & Construction		1	
GS-15	Sr. Architect/Planner		1	
GS-14	Design & Construction Project Manager		1	
GS-14	Sr. Engineer		1	
GS-14	Land Acquisition Specialist			1
GS-14	Financial Analyst			1
GS-13	Historic Preservation & Fine Arts Planner		1	
GS-13	Architect/Planner		1	
GS-13	Public Information Officer	1		
GS-13	Relocation Officer			1
GS-13	Attorney	2		
GS-13	Administrative Officer	1		
GS-13	Engineer		1	
GS-12	Assistant Relocation Officer		1	
GS-12	Urban Planner		1	
GS-11	Administrative Assistant	1		
GS-9	Architect/Planner		2	
GS-9	Scheduling Technician		1	
GS-8	Secretary	1		1
GS-7	Draftsman		1	
GS-7	Secretary	1		
GS-6	Secretary		1	
GS-5	Clerk/Stenographer	1		1
	Total permanent positions by Activity	10	13	7

DETAIL OF PERMANENT POSITIONS
(By Grade)

	1974 actual	1975 estimate	1976 estimat
GS-17	1	1	1
GS-16	---	---	3
GS-15	3	3	1
GS-14	1	1	4
GS-13	1	5	8
GS-12	3	4	2
GS-11	2	1	1
GS-9	---	1	3
GS-8	1	1	2
GS-7	2	2	2
GS-6	---	1	1
GS-5	1	---	2
Total permanent positions	15	20	30
Unfilled positions, June 30	3	---	---
Total permanent employment, end of year	12	20	30

JUSTIFICATION BY ACTIVITY, FISCAL YEAR TRANSITION PERIOD JULY 1, 1976 THROUGH SEPTEMBER 30, 1976

During the three month fiscal year transition period it is anticipated that the Corporation will continue with project implementation activities in accordance with the descriptions contained in the Appropriation Request for fiscal year 1976. Accordingly, the estimate of appropriations requested for the three month transition period is 25 percent of the amount requested for fiscal year 1976 and is expressed in 1974 dollars.

Following is a brief narrative of the activities and amounts required for the fiscal year transition period, July 1, 1976 through September 30, 1976:

1. Executive Direction: The appropriation requested for the fiscal year transition period for this activity is $69,000, representing 25 percent of the $276,000 requested for fiscal year 1976. Functions included within this activity are the office of the Executive Director, the General Counsel, Administration and Public Information and Liaison.

2. Project Planning: $134,000 is requested to be appropriated for the fiscal year transition period, representing 25 percent of the $536,000 requested for fiscal year 1976.

3. Development: $111,000 is requested for the fiscal year transition period, equaling 25 percent of $444,000 requested to be appropriated for fiscal year 1976.

ACTIVITIES ($ in Thousands)	
1. Executive Direction	69
2. Project Planning	134
3. Development	111
TOTAL APPROPRIATIONS	314
RECONCILIATION WITH OBLIGATIONS	
Unobligated balance at start of year	-
Unobligated balance at end of year	-
Unobligated balance lapsing	-
TOTAL OBLIGATIONS	314
PERMANENT POSITIONS BY ACTIVITY	
1. Executive Direction	10
2. Project Planning	13
3. Development	7
TOTAL PERMANENT	30

NATIONAL CAPITAL PLANNING COMMISSION

PROGRAM AND PERFORMANCE

The National Capital Planning Commission, pursuant to the National Capital Planning Act of 1952, as amended (40 U.S.C. 71-71i; D.C. Code secs. 1-1001 to 1010), is the central planning agency for the Federal Government in the National Capital. The Commission succeeded the National Capital Park and Planning Commission, established in 1926.

The Act has as its purpose the securing of comprehensive planning for the physical development of the National Capital. Accordingly, the Commission is "charged with the duty of preparing and adopting a comprehensive, consistent, and coordinated plan for the National Capital * * *" and with reviewing and making recommendations on plans originated by Federal and District agencies for proposed developments and projects in the National Capital Region "in preliminary and successive stages."

The Federal elements of the Comprehensive Plan prepared and adopted by the Commission and the District elements prepared by the Mayor and adopted by the Council of the District of Columbia and "with respect to which the Commission has not determined a negative impact (on the interests or functions of the Federal Establishment in the National Capital) to exist" together constitute the Comprehensive Plan for the National Capital.

Within the environs of the District of Columbia, general plans showing the location, character, extent, and intensity of use for proposed Federal and District developments are required to be reviewed by the Commission and, through the Commission, by the appropriate planning agency having jurisdiction over the affected parts of the environs. The National Capital is defined in the Act as "The District of Columbia and territory owned by the United States within the environs" (environs means "the territory surrounding the District of Columbia included within the National Capital Region"); and the National Capital Region consists of the District of Columbia, Montgomery and Prince Georges Counties in Maryland; Arlington, Fairfax, Loudoun and Prince William Counties in Virginia, and all cities in Maryland and Virginia within the outer limits of such counties.

Provisions of other laws--especially the zoning enabling act for the District of Columbia (D.C. Code sec. 5-701 to 5-719) and the District of Columbia Redevelopment Act of 1945, as amended (D.C. Code sec. 5-413 to 5-428)-- place significant additional responsibilities upon the Commission. These include (1) making recommendations to the Zoning Commission of the District of Columbia on amendments to the text and maps of the Zoning Regulations and on large scale planned developments under section 7501 of the Regulations and to the Board of Zoning Adjustments on applications for certain uses required to be referred to the Commission under the Regulations; (2) adoption of boundaries or urban renewal areas

and the preparation, adoption, and modification of urban renewal plans; (3) approval of the Permanent System of Highways Plan and amendments thereto (D.C. Code, secs. 7-108, 7-113, and 7-122); (4) recommendations on proposed street and alley closings (D. C. Code, sec. 7-401); (5) "in lieu of zoning" approval of Federal public buildings in the District of Columbia (D. C. Code, sec. 5-428); (6) approval of transfers of jurisdiction between Federal and District agencies over properties within the District of Columbia owned by the United States or by the District of Columbia (D. C. Code sec. 8-115); (7) approval of the sale of surplus District of Columbia property (D.C. Code sec. 9-301) and surplus park land under the jurisdiction of the National Park Service (D.C. Code, sec. 9-304); and (8) acquisition of land for the park, parkway and playground system of the National Capital (U.S.C. 72).

Status of Pertinent Authorization

The authorization for our present account (31-25-0103-0-1-451), is contained in the National Capital Planning Act of 1952, as amended (40 U.S.C. 71-71i; D.C. Code secs. 1-1001 to 1-1010). None of the estimates herein presented will require additional authorization, nor are there any limitations or specific disallowances in the committee reports for the preceding fiscal year.

Organization of the Commission

The Commission is composed of five eminent citizens, three of whom are appointed by the President and two of whom are appointed by the Mayor of the District of Columbia; three ex-officio members from executive agencies (the Secretaries of the Interior and Defense and the Administrator of General Services); the Chairmen of the Committees on the District of Columbia of the Senate and the House of Representatives; the Mayor of the District of Columbia; and the Chairman of Council of the District of Columbia.

The Commission meets monthly throughout the year to provide policy guidance for the coordination of the development programs in the District and the Region of Federal agencies and to review and adopt, approve, or make recommendations on matters upon which Commission action is required.

Standing committees of the Commission meet regularly prior to Commission meetings to review technical studies, receive recommendations of the staff, and prepare committee recommendations to the Commission.

Professional Staff

The Commission employs a highly trained professional staff to perform technical studies and prepare recommendations to the Commission and its

committees, maintains records of its meetings, make general and special urban planning studies, prepare background information on matters which are to come before the Commission, and carry out policies, instructions, and programs of the Commission.

The staff participates actively in many coordinating groups, maintains liaison with numerous official agencies and conducts an active community relations program in order to effectuate the Commission's program.

Outside experts, who have special competence on particularly important problems, are retained on occasion.

Planning and Programming Coordination

The Commission's Coordinating Committee, created under the authority of section 2(d) of the Planning Act, meets twice monthly to bring together representatives of District and Federal agencies and neighboring jurisdictions to coordinate the review, study, and comment on development plans and programs for projects within the District of Columbia.

The Chairman of the Commission is a member of the Land Use Committee of the Metropolitan Washington Council of Governments and the Commission is represented on the Board of Directors of the United Planning Organization. The Executive Director of the Commission is a member of the Transportation Planning Board of the Council of Governments. In addition, the Council of Governments and the Commission have jointly formed a Regional Planning Directors Committee to review Federal and regional proposals and projects in the Washington Metropolitan Area.

SALARIES AND EXPENSES APPROPRIATION
31-25-0103-0-1-451

ANALYSIS OF CHANGES IN REQUIREMENTS
(in thousands of dollars)

	Budget Authority	OUTLAYS
1974 total	$1,459	$1,486
1974 Appropriation Adjustment, to Operating Expenses, Public Building Service, General Service Administration, (80 Stat. 674), for rental of office space	-19	
1974 Supplemental for Civilian pay act increases, effective January & October 1973, E.O. 11691 and E.O. 11739	100	
1974 total adjusted	1,540	
DECREASES		
1976 Bicentennial Planning	-32	
Reimbursement to U.S. Department of Labor	-1	
Annual travel expenses for former Chairman, no longer required	-9	
INCREASES		
Annual payment required for rental of space from General Services Administration, Public Law 92-313	148	
Remaining 20% cost of two new positions authorized in Fiscal Year 1974	6	
Funds for "executive development" in accordance with provisions of OMB Bulletin No. 74-1, 7/30/73	3	
Funds to offset increased cost of printing and binding, per GPO Circular Letter No. 103, 8/15/73 (17.3% increase on $54,000)	9	
Nonrecurring increase of $3,000 for purchase of equipment	3	
Nonrecurring increase of $10,000 for photogrammetric preparation of base maps in District of Columbia	10	
Additional funds for contracting with Experts and Consultant firms	30	
Nonrecurring increase of $20,000 for printing & binding	20	
In-grade raises due in Fiscal Year 1975	21	
Adjustment of supplemental request for civilian pay act increases (E.O. 11691 and E.O. 11739)	11	
Annualization of salaries	18	
1975 total	1,777	1,842
DECREASES		
Nonrecurring increase of $3,000 for purchase of equipment	-3	
Nonrecurring increase of $10,000 for photogrammetric preparation of base maps in District of Columbia	-10	
Nonrecurring increase of $20,000 for printing and binding for "A History of Planning for the Nation's Capitol"	-20	

	Budget Authority	OUTLAYS
Nonrecurring increase of $15,000 to secure expert consulting service to project Federal Employment changes in National Capitol Region	-15	
INCREASES		
Funds for "Executive Development" in accordance with provisions of IMB Bulletin No. 75-4, 8/12/74	+3	
Pay increase by law effective 10/1/74. (NCPC will absorb cost from 10/1/74 to 6/30/75).....	+78	
Funds for payment of $100 per day for members of NCPC when serving in committee and Commission Meeting as per D. C. Home Rule Act, section 203. (NCPC will absorb estimated $25,000 for Fiscal Year 1975 in salary and expense budget).	+40	
GSA requested rent increase for Fiscal Year 1976	+37	
Miscellaneous cost increases from other Government Agencies, (GSA payrolling-Treasury Health Unit-etc.) Supplies and Materials, and Rent, Communications and Utilities, and Commission Travel Costs	+8	
1976 Total	1,895	1,895

JUSTIFICATION FOR INCREASES

1. Rental of office space. The General Services Administration has advised this Commission that the cost for rental of office space provided by GSA at approximate commercial equivalent rates effective July 1, 1975, under the provisions of Public Law 92-313, will be $185,200. This space is the same as occupied last year and constitutes the entire 10th floor at 1325 G Street, N.W., a private office building, and provides all the office space needed for Commission employees. This increase is $37,200 above the FY 1975 figure of $148,000.

2. Additional Funds for "Executive Development". At the present time our budget contains $5,500 for all training, secretarial and professional. An additional $3,000 is needed to develop a viable "executive development program" during FY 1976.

3. Federal Pay Increase prescribed by law, effective 10/1/74. The Commission will attempt to absorb the cost of this pay raise in FY 1975. The cost in FY 1976, however, will require an additional $78,000.

4. Funds for payment of $100 per day for members of NCPC when serving in Committee and Commission Meetings as per D. C. Home Rule Act, section 203, (NCPC is absorbing approximately $20,000 of this cost from 1-1-75 to 6-30-75 out of Salary and Expenses monies). For FY-1976, however, we need $40,000 to cover this additional recurring cost.

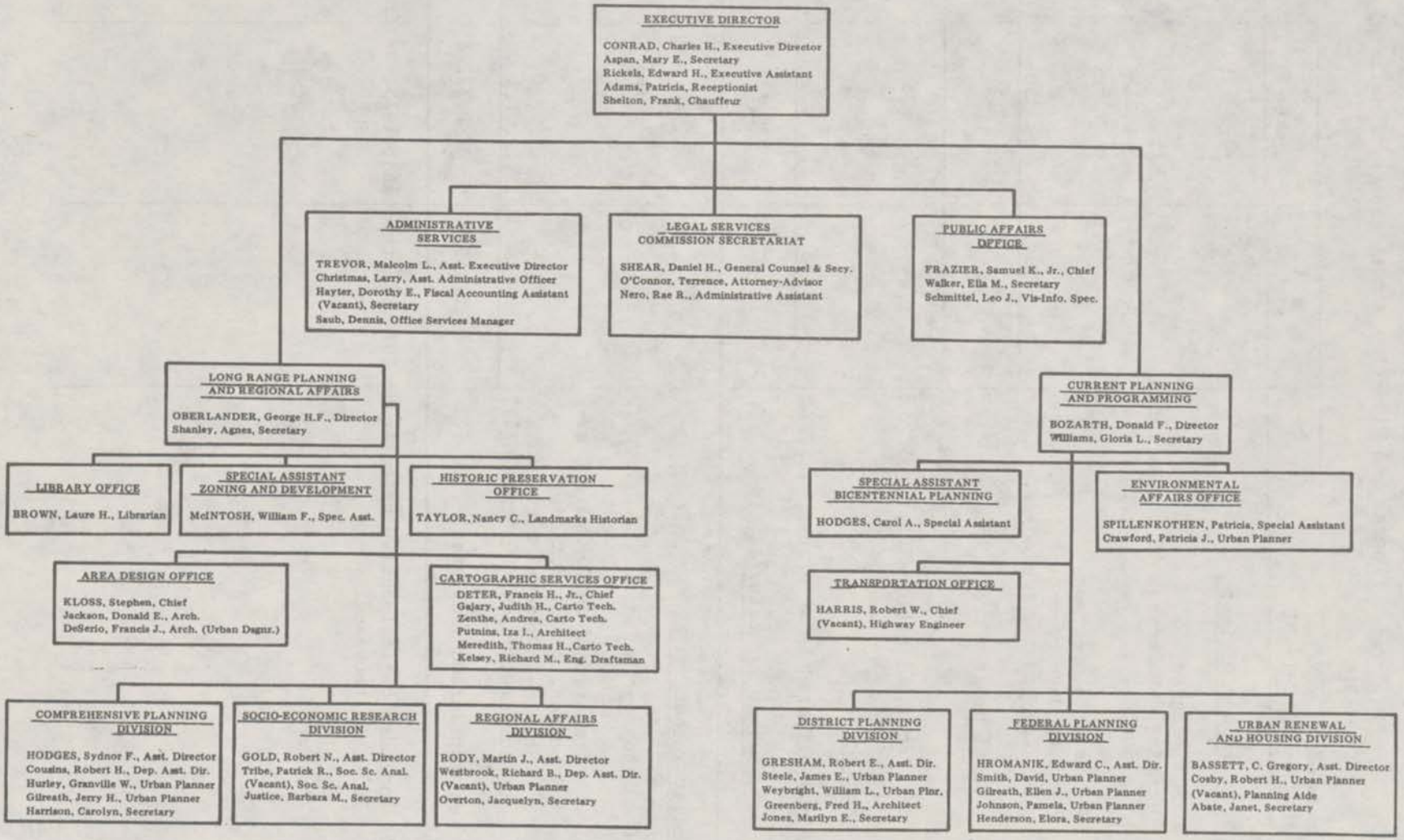
5. Miscellaneous Cost Increases from other government agencies (GSA-payrolling and FTS costs, Treasury-Health Unit, Post Office), Supplies and Materials, and Machine Rental, Communications and Utilities and Commission Travel Costs. These higher costs are the results of inflation and do not represent the purchase of additional goods or services. This additional cost is estimated at $8,000 for FY 1976.

FISCAL YEAR 1976 BUDGET
ANALYSIS BY OBJECT CLASSIFICATION -- SALARIES & EXPENSES APPROPRIATION
(Obligational Basis)

	Actual F.Y. 1974	Budgeted F.Y. 1974	Budgeted F.Y. 1975	F.Y. 1976 Increases	Est. F.Y. 1976	Transit. Period
Permanent positions (net of lapses)	$1,111,857	$1,174,125	$1,216,125	$+72,000	$1,288,125	$310,000
Seasonal and temporary employees	14,949	17,000	17,000	-	17,000	4,250
Part time & WAE	829	1,500	1,500	+40,000	41,500	10,400
Overtime & holiday pay	3,793	5,000	5,000	-	5,000	1,250
Total personnel compensation	1,131,428	1,197,625	1,239,625	+112,000	1,351,625	325,900
Personnel Benefits	94,481	100,000	103,000	+6,000	109,000	25,000
Awards to employees	500	500	500	-	500	-
Travel of Commission members	7,796	15,000	6,000	+2,000	8,000	2,000
Travel of staff	6,944	9,000	9,000	-	9,000	2,000
Vehicle rent	1,836	2,500	2,500	-	2,500	600
Transportation of household goods	-	7,000	7,000	-	7,000	-
Rental of office space from GSA	18,403	-	148,000	+37,000	185,000	46,300
Rent, communications, utilities	34,824	36,130	37,130	+2,000	39,130	9,800
Duplicating expenses	3,779	5,000	5,000	-	5,000	1,000
Printing and binding	31,733	54,000	83,000	-20,000	63,000	-
Contracts with experts & consultants	35,847	35,000	65,000	-15,000	50,000	-
Bicentennial planning	32,000	32,000	-	-	-	-
Reporting services	7,040	10,000	10,000	-	10,000	2,000
Base maps of District of Columbia	-	-	10,000	-10,000	-	-
Other services	14,874	12,250	14,250	+3,000	17,250	2,600
Services of other government agencies	8,960	8,000	8,000	+2,000	10,000	2,500
Supplies and materials	24,191	21,995	20,995	+2,000	22,995	3,500
Equipment	9,065	5,000	8,000	-3,000	5,000	800
Total, National Capital Planning Commission	1,463,701	1,551,000	1,777,000	118,000	1,895,000	424,000
Permanent Full-Time positions	64	64	64	-	64	64

NATIONAL CAPITAL PLANNING COMMISSION

Staff Organization



Fiscal Year 1976 — 64 positions.

1985

Program and Financing (in thousands of dollars)

Identification code 31-25-0103-0-1-451	1974 actual	1975 estimate	1976 estimate
Program by activities:			
Direct program			
Planning development of the National Capital	1,387	1,718	1,895
Reimbursable program			
Planning development of the National Capital (costs, funded)	58	59	.....
Total program costs, funded 1/	1,445	1,777	1,895
10 Total obligations	1,445	1,777	1,895
Financing:			
25 Unobligated balance lapsing	95	.....	.....
Budget authority	1,540	1,777	1,895
Budget authority:			
40 Appropriation	1,559	1,777	1,895
41 Transferred to "Operating expenses, Public Buildings Service, "General Services Administration (80 Stat. 674)	-19	.....	.....
43 Appropriation (adjusted)	1,540	1,777	1,895

1/ Includes capital outlay as follows: 1974, $5 thousand; 1975, $8 thousand; 1976, $5 thousand.

FINANCING AND OUTLAYS (in thousands of dollars)

Identification code 31-25-0103-1-451	1974 actual	1975 estimate	1976 estimate
Relation of obligations to outlays:			
71 Obligations incurred, net	1,445	1,777	1,895
72 Obligated balance, start of year .	405	375	310
74 Obligated balance, end of year ...	-375	-310	-310
77 Adjustments in expired account	11	.....	.....
90 Outlays.	1,486	1,842	1,895
91.2 Outlays from civilian pay act supplemental	.....	.....	.....

DIRECT OBLIGATIONS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 31-25-0103-0-1-451		1974 actual	1975 estimate	1976 estimate
	Personnel compensation:			
11.1	Permanent positions	1,113	1,216	1,288
11.3	Positions other than permanent	15	18	59
11.5	Other personnel compensation	5	5	5
	Total personnel compensation	1,133	1,239	1,352
	Personnel benefits:			
12.1	Civilian	95	103	109
21.0	Travel and transportation of persons	15	17	17
22.0	Transportation of things	.....	7	7
23.0	Rent, communications, and utilities	35	185	227
24.0	Printing and reproduction	20	60	68
25.0	Other services	62	78	87
26.0	Supplies and materials	24	21	23
31.0	Equipment	3	8	5
	Total direct costs, funded	1,387	1,718	1,895
94.0	Change in selected resources	58	59	.....
99.0	Total direct obligations	1,445	1,777	1,895

REIMBURSABLE OBLIGATIONS

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code 31-25-0103-0-1-451	1974 actual	1975 estimate	1976 estimate
25.0 Other services	58	59	.....
94.0 Change in selected resources	-58	-59	.....
99.0 Total obligations	1,445	1,777	1,895

PERSONNEL SUMMARY

Identification code 31-25-0103-0-1-451	1974 actual	1975 estimate	1976 estimate
Total number of permanent positions ..	64	64	64
Full-time equivalent of other positions	2	2	2
Average paid employment	62	62	62
Average GS grade	10.30	10.28	10.28
Average GS salary	18,446	18,955	19,652
Average salary of ungraded positions .	8,590	.....	.....

PERSONNEL SUMMARY

Identification code 31-25-0103-0-1-451	1974 actual	1975 estimate	1976 estimate
GS-17	1	1	1
GS-16	2	2	2
GS-15	8	10	10
GS-14	5	3	3
GS-13	4	4	4
GS-12	9	9	9
GS-11	5	6	6
GS-10	1	1	1
GS-9	7	7	7
GS-8	2	1	1
GS-7	7	7	7
GS-6	4	6	6
GS-5	5	4	4
GS-4	2	3	3
GS-3	1	.....	.....
Ungraded	1	.....	.....
Total permanent positions	64	64	64
Unfilled positions, June 30(-)	-4	.....	.....
Total permanent employment, end of year	60	64	64

PROGRAM ACTIVITIES

CURRENT PLANNING AND PROGRAMMING

During Fiscal Year 1976 staff program activities will be conducted in the following areas: proposed District of Columbia plans and programs - including urban renewal proposals; proposed Federal plans and programs in the region; transportation planning; environmental planning; and Bicentennial planning.

Regarding its Federal planning function the Commission will review fiscal year budget requests of Federal agencies for land acquisition and construction projects in the Region for consistency with the Comprehensive Plan for the National Capital, master plans for individual Federal installations, and other District, Federal, regional and subregional plans for the region.

As a part of its responsibility for reviewing Federal plans and projects the Commission will review proposed land acquisitions and building sites, and both preliminary and final site and building plans for Federal projects in the region. This function will also include review of master plans for major Federal installations in the region.

The Commission anticipates that it will prepare and recommend a Federal Six-Year Public Works Program for all civilian and military land acquisition and construction projects proposed in the Region. Such a program would be a major tool in coordinating and guiding the implementation of long-range Federal plans and programs in the region and, in conjuction with the District's Six-Year Public Improvements Program, would become part of the regionwide program proposed by the Metropolitan Washington Council of Governments.

In carrying out its function as the clearinghouse for Federal Planning matters in the National Capital Region, the Commission will review proposed local, state and regional proposals affecting Federal interests in the growth and development of the region. Such proposals will be circulated to affected Federal agencies for review and comment, and then the Commission will forward a consolidated Federal planning report to the sponsoring agency or unit of government.

Other functions include reviewing and commenting on General Service Administration surveys in the National Capital Region regarding un-needed Federal real property, and commenting on the findings and recommendations of those surveys as to their impact on existing or proposed Federal land

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use and approved master plans. The Commission will also monitor public notices issued by the U.S. Army Corps of Engineers and the U.S. Coast Guard of applications for permits to construct piers or perform other work along or within waterways in the National Capital Region. Comments will be forwarded to the agencies in accordance with established Commission policy concerning waterfront development in the Nation's Capital.

A long-range plan and program for Federal employment in the Region will be developed, and policy and program recommendations resulting from this study will be adopted by the Commission as a part of the Comprehensive Plan for the National Capital. Federal employment studies and the Federal Employment Plan and Program for the National Capital Region will be kept current, up-dated and extended on a systematic basis in keeping with day-to-day decisions and developments in the National Capital Region.

A Federal Transportation study will be prepared and will include an analysis of transportation and parking needs of the Federal Government in the region, and recommendations to insure that the region's future transportation system will adequately serve the needs of the Federal Government. In addition, the Commission will continue to review plans for transportation facilities such as transit stations and highway improvements.

The Commission will conduct an environmental review and evaluation of any actions initiated by the Commission, and of proposed District of Columbia and Federal developments in the National Capital Region. When determined to be required the Commission will prepare environmental impact statements. Also technical assistance will be provided to other Federal agencies in the preparation of joint environmental statements and to Federal agencies preparing proposed developments in the region.

Technical planning assistance and support will be provided to official Bicentennial planning and programming agencies in the National Capital Region. In Fiscal Year 1976 it is anticipated that the Commission will complete its activities associated with the review of proposed Bicentennial developments in the Region, but will continue to provide technical advice and assistance to the Federal agencies planning and programming such Bicentennial projects.

Review of proposed District of Columbia developments will concentrate on the Federal interest aspects of the Six-Year Capital Improvements Program, land acquisition proposals, project plans, and master plans in order to coordinate local plans and projects with Federal plans and programs in the National Capital.

Regarding urban renewal responsibilities the Commission will continue to review and adopt proposed urban renewal plans and modifications thereto. It will also coordinate with the District of Columbia's new Community Development Program in matters affecting the Federal interest in the development of the city.

LONG RANGE PLANNING AND REGIONAL AFFAIRS

Staff work activities during Fiscal Year 1976 will cover the technical areas of zoning and development, historic preservation, comprehensive-regional planning and research.

In the area of Zoning and Development the staff will be required to continue reviewing and preparing recommendations to the Commission on all zoning referrals from the District of Columbia Board of Zoning Adjustment and the District of Columbia Zoning Commission.

Regarding Historic Preservation staff will continue to advise and assist on Federal undertakings on landmarks listed or eligible for listing in the National Register of Historic Places pursuant to Section 106 and 107 of the National Historic Preservation Act of 1966. In addition, the staff will continue to support the Joint Committee on Landmarks in its responsibilities for designating landmarks and its continuing work on preservation, programming and landmark protection.

In carrying out the comprehensive planning function Commission staff will give special attention to space needs of foreign missions and international agencies in the city and in the region and will also articulate the regional development objectives relating to established policies contained in the Comprehensive Plan for the National Capital. The staff will undertake innovative studies within the L'Enfant City area dealing with the Federal interests.

Staff will continue regional activities by working with the Metropolitan Washington Council of Governments on the reexamination of the Year 2000 Policies for the region and identify Federal interests in the regional development form and policy guide lines for future growth. Work will also be performed in refining the Federal Capital Improvement Plan for the National Capital Region. It is anticipated that during the Fiscal Year 76 the joint study by the National Capital Planning Commission and the Metropolitan Washington Council of Governments concerning National Capital air facilities will be completed. In addition, the staff will initiate Federal regional aspects of the Comprehensive Plan for the National Capital.

As a major part of the Commission's Federal research function, there will be further evaluation of the relationship of National Government to the Washington economy through substudies on tourists, business visitors and convention industries; legal services; research and development industries; and non-profit membership organizations. If possible, additional sub-studies on educational services, construction and allied industries will also be undertaken.

In the Area Design function of the Commission staff, work will focus on Federal interests in design aspects of the open space system, the Potomac River and its tributaries, and transportation systems.

Long Range Planning and Regional Affairs also concerns itself with the review functions of the various District and Federal agencies submitting building projects to the Commission. This review function deals with two levels of concern: (1) conformance with the Comprehensive Plan for the National Capital, and (2) the specific site and building plan impact and use compatability with the location of the particular project. No specific program can be forcast for such an activity since it relates directly to other agency submissions and Congressional funding.

Services of Experts and Consultants Funded under the S&E Account.

A. Fiscal Year 1974 (funds available, $35,000)

Real Estate Research Corp., Washington, D.C..... An addition to a $5,000 original contract in Fiscal Year 1972 for materials for a methodology to estimate supportable floor space and other features of retail trade and services in the District of Columbia.	3,000
Frederick Gutheim, Washington, D.C..... Final phase of work on "A History of Planning for the Nation's Capital"	2,000
Ross, Hardies, O'Keefe, Babcock & Parsons, Chicago, Illinois ..... Review of proposed Georgetown Waterfront zoning regulations.	1,897
Additional consultant services to support Commission staff on special projects and programs needing outside expertise.....	28,103
In addition, $32,000 is available for the 1976 Bicentennial Planning.....	32,000

B. Fiscal Year 1975 (total requested $65,000)

Normal consultant services to support Commission staff on special projects and programs needing outside expertise	35,000
Special technical consulting services and assistance in the development of data and information to be incorporated into Environmental Impact Statements to be prepared by the Commission	15,000
To secure expert consulting services to establish a system for recording, monitoring and projecting Federal Employment changes in the National Capital Region	15,000

C. Fiscal Year 1976 (total $50,000)

Normal consultant services to support Commission staff on special projects, including environmental matters, and programs needing outside expertise..	50,000

D. Transition Period

No funds are being sought during the 3 month period.

Justification of Transition Period

Planning development of the National Capital - $ 424,000

An estimate of $424,000 is requested for the period July 1, 1976 - September 30, 1976. This amount was computed on the basis of the requested funding level for FY-1976 minus, various items that we felt could be pared down or suspended during the transition period. As you can see the $424,000 figure is substantially less than 1/4 of the FY-1976 estimate of $1,895,000. It is extremely important that both the FY-1976 and the Transitional levels be funded as requested if we are to maintain our program effectiveness for these periods. Our agency is very small and our entire budget consists of Salary and Expenses money. Employees salaries constitute about 86% of our budget. There are no new programs or proposals.

Analysis by Activities

FY 1976 Estimate and July 1-Sept. 30 Period
Salary & Expenses

Activity	FY 1976 Estimate	Estimate July - Sept. 30, 1976
Planning development of the National Capital	1,895	424
Total	1,895	424

SALARIES AND EXPENSES

For necessary expenses, as authorized by the National Capital Planning Act of 1952 (40 U.S.C. 71-71i), including services as authorized by 5 U.S.C. 3109; and uniforms or allowances therefor, as authorized by law (5 U.S.C. 5901-5902, / $1,777,000/ of which $1,895,000 all shall be available until expended.

For "Salaries and Expenses" for the period July 1, 1976, through September 30, 1976. $424,000 of which all shall be available until expended.

(88 Stat. 803: Department of the Interior and Related Agencies Appropriation Act, 1975)

Program and Financing (in thousands of dollars)
Transition Period

Identification code 31-25-0103-0-1-451	19 actual	19 estimate	19 estimate
Program by activities:	July 1 - Sept. 30, 1976		
Direct program			
Planning development of the National Capital	424		
Reimbursable program			
Planning development of the National Capital (costs, funded) .	0		
Total program costs, funded	424		
10 Total obligations	424		
Financing:			
25 Unobligated balance lapsing	0		
Budget authority	424		
Budget authority:			
40 Appropriation	424		
Relations of obligations to outlays:			
71 Obligations incurred, net	424		
72 Obligated balance, start of period	310		
74 Obligated balance, end of period .	-310		
90 Outlays	424		

AMERICAN REVOLUTION BICENTENNIAL ADMINISTRATION

ANALYSIS BY ACTIVITIES

FY-1975 PROJECTIONS AND FY-1976 ESTIMATE
(in thousand of dollars)

ACTIVITY	FY-1975 PROJECTIONS	FY-1976 ESTIMATE
Administrative/Management Support	1,096	1,220
Bicentennial Communities	585	460
Bicentennial Exhibits & Films	1,670	1,305
Board and Council Activities	235	255
Communications Activities	1,205	1,220
International Affairs	110	135
Master Calendar Services	725	1,010
Program Implementation	1,195	1,425
Regional Offices	950	1,045
Resources Development	540	550
State Grants (Direct)	1,375	1,375
TOTAL	$9,686	$10,000

SALARIES AND EXPENSES

For expenses to carry out the provisions of the Act of December 11, 1973 (Public Law 93–179), [$9,686,000,] of which not to exceed $1,375,000 shall be for grants-in-aid as authorized by section 9(a)(1) of the Act. $10,000,000

Public Law 93-179 established the American Revolution Bicentennial Administration as successor to the American Revolution Bicentennial Commission. The activities formerly conducted by the Commission have been transferred to the Administration.

In pursuit of a memorable and lasting Bicentennial commemoration, the funds requested will help assure the following:

1. General administration - These funds support a coordinated, balanced commemorative Bicentennial program encompassing the three themes of Heritage '76, Festival USA, and Horizons '76. It has developed and conducted the existing network of State and local Bicentennial Commissions, national groups and organizations in the public and private sectors, as well as Federal agencies and foreign governments.

A primary function of the Administration is the preparation of the Master Calendar of events of local, State, and international significance to take place between March 1975 and December 31, 1976, 12 months of which come within 1976. A computerized Bicentennial Information Network (BINET) maintains the calendar to increase public awareness of and involvement in the activities and events planned to commemorate the 200th anniversary of the United States of America.

The Administration operates 10 regional offices to assist regional, State, and local Bicentennial committees and commissions. It lends technical support, including prototype exhibits, staging of special events, competitions, and similar activities.

2. Grants-in-aid - The Administration makes both matching and nonmatching grants to State bicentennial commissions and other appropriate organizations to attain a balanced program as authorized under section 9 of Public Law 93-179, which established the Administration.

The Administration makes direct annual operations grants of $25,000 to each of the 55 bicentennial commissions of the States, territories, Puerto Rico, and the District of Columbia. In addition the Administration will make available $200,000 in appropriated matching grants during 1975 to 1976 to each of the 55 entities.

Object Classification (in thousands of dollars)

Identification code 31-03-1900-0-1-806		1974 actual	1975 est.	1976 est.
	Personnel compensation:			
11.1	Permanent positions	1,809	2,633	2,728
11.3	Positions other than permanent	32	65	53
11.5	Other personnel compensation	6	14	6
11.8	Special personal services payments	209	393	360
	Total personnel compensation	2,056	3,105	3,147
12.1	Personnel benefits: Civilian	130	275	277
21.0	Travel and transportation of persons	441	565	470
22.0	Transportation of things	47	43	30
23.0	Rent, communications, and utilities	286	450	632
24.0	Printing and reproduction	471	810	723
25.0	Other services	2,842	2,918	3,274
26.0	Supplies and materials	235	49	45
31.0	Equipment	197	96	27
41.0	Grants, subsidies, and contributions	90	13,750	1,375
99.0	Total obligations	6,795	22,061	10,000

Personnel Summary

Total permanent positions	110	141	141
Full-time equivalent of other positions	5	11	8
Average paid employment	98	140	141
Average GS grade	10.10	10.40	10.60
Average GS salary	$18,057	$18,455	$19,930

Program and Financing (in thousands of dollars)

Identification code 31-03-1900-0-1-806	1974 actual	1975 est.	1976 est.
Program by activities:			
1. General administration	4,944	8,311	8,625
2. Grants-in-aid:			
Direct	2,288	2,832	1,375
Matching	---	11,000	---
Total program costs, funded	7,232	22,143	10,000
Change in selected resources (undelivered orders)	-437	-82	---
10 Total obligations	6,795	22,061	10,000
Financing:			
21 Unobligated balance available, start of year	-90	-12,375	---
24 Unobligated balance available, end of year	12,375	---	---
25 Unobligated balance lapsing	625	---	---
40 **Budget authority (appropriation)**	**19,705**	**9,686**	**10,000**
Relation of obligations to outlays:			
71 Obligations incurred, net	6,795	22,061	10,000
72 Obligated balance, start of year	3,711	3,822	2,301
74 Obligated balance, end of year	-3,822	-2,301	-1,901
77 Adjustments in expired accounts	-62	---	---
90 Outlays	6,622	23,582	10,400

DETAIL OF PERMANENT POSITIONS

31-03-1900-0-1-806	1974 actual	1975 estimate	1976 estimate
Executive Level III	1	1	1
Executive Level IV	.....	1	1
Subtotal	1	2	2
GS-18	.....	1	1
GS-17	2	3	3
GS-16	.....	1	1
GS-15	20	23	23
GS-14	8	12	12
GS-13	5	12	12
GS-12	7	9	9
GS-11	14	17	17
GS-10	.....	1	1
GS-9	8	7	7
GS-8	2	2	2
GS-7	13	20	20
GS-6	13	10	10
GS-5	10	12	12
GS-4	5	6	6
GS-3	1	2	2
GS-2	1	1	1
Subtotal	109	139	139
Total permanent positions	110	141	141
Unfilled positions, June 30	-11	.....	.....
Total permanent employment, end of year	99	141	141

Identification code 31-03-1900-0-1-806	1974 actual	1975 estimate	1976 estimate
Total permanent positions	140	141	141
Full-time equivalent of other positions	5	11	8
Average paid employment	98	140	141
Average GS Grade	10.10	10.40	10.60
Average GS Salary	$18,057	$18,455	$19,930

GIFTS AND DONATIONS

Program and Financing (in thousands of dollars)

Identification code 31-03-8091-0-7-806	1974 actual	1975 estimate	1976 estimate
Program by activities:			
1. General Administration total cost funded	1	---	---
2. Grants for projects	---	---	---
10. Total obligations - ARBA (Cost funded object class 25.0)	1	---	---
Financing:			
21. Unobligated balance available, start of year	-1	---	---
24. Unobligated balance available, end of year	---	---	---
60. Budget authority (appropriation)	---	---	---
Relation of obligation to outlays:			
71. Obligations incurred, net	1	---	---
72. Obligated balance, start of year	---	---	---
74. Obligated balance, end of year	---	---	---
90. Outlays ARBA	1	---	---

COMMEMORATIVE ACTIVITIES FUND

Revenue is generated for deposit into this account from the sale of medal and stamp packages and from bronze and silver solo medals. These items are produced exclusively by the U.S. Mint and the stamps are printed, affixed, and canceled by the U.S. Postal Service. In the Bicentennial year, a special national medallion will also be produced for sale. Additional revenue may be generated through the licensing of commemorative items and use of the national Bicentennial symbol as may be determined by the American Revolution Bicentennial Board.

The Administration utilizes these funds to support Bicentennial programs, and to make grants available to States, cities, counties, et cetera, on a matching basis for worthwhile Bicentennial projects. These funds may also be used for special projects on a nonmatching basis when deemed appropriate by the ARBA Board.

Object Classification (in thousands of dollars)

Identification code 31-03-5077-0-2-806	1974 actual	1975 estimate	1976 estimate
25.0 Other Services	1,505	3,295	4,600
41.0 Grants, subsidies, and contributions.	2,369	4,942	6,800
99.0 Total obligations	3,874	8,237	11,400

Program and Financing (in thousands of dollars)

Identification code 31-03-5077-0-2-806	1974 actual	1975 estimate	1976 estimate
Program by activities:			
1. General Administration	1,505	3,295	4,600
2. Project Grants	1,868	4,942	6,800
Total Program Cost Funded	3,373	8,237	11,400
Change in Selected Resources	+ 501	---	---
10. Total Obligations	3,874	8,237	11,400
Financing:			
21. Unobligated balance available, start of year	-2,825	-4,237	-1,500
24. Unobligated balance available, end of year	4,237	1,500	2,000
60. Budget authority	5,286	5,500	11,900
Relation of Obligations to Outlays:			
71. Obligations incurred, net.	3,874	8,237	11,400
72. Obligated balance, beginning	1,191	1,297	1,534
74. Obligated balance, end of year	-1,297	-1,534	-1,934
90. Outlays.	3,768	8,000	11,000

STATE PROJECT MATCHING GRANTS

As cited in P.L. 93-179, Section 9, the ARBA will conduct a $200,000 direct matching grant program as established in Section 9(b) of this Act to each of the State, District of Columbia, Puerto Rico, and Territorial Bicentennial Commissions in support of bicentennial programs and projects. The States, the District of Columbia, Puerto Rico and Territories are prohitibed from using these funds for administrative operating support.

NARRATIVE JUSTIFICATION

The American Revolution Bicentennial Administration (ARBA) was established by act of Congress on January 11, 1974 (to succeed the American Revolution Bicentennial Commission) as the Federal agency responsible "to coordinate, to facilitate, and to aid in the scheduling of events, activities, and projects of local, state, national and international significance sponsored by both governmental and non-governmental entities in commemoration of the American Revolution Bicentennial". The FY 1976 budget request is the first ARBA request under the new legislation.

Fiscal Year 1976 includes 12 of the 22 months of the Bicentennial commemoration period specified in the new legistation as March 1975 to December 1976. The proposed budget provides minimal support to carry forward during this critical period ARBA's mandate under the new law to assure Bicentennial programs of local, state, national, and international significance encompassing the Heritage '76, Festival USA, and Horizons '76 themes, balanced thematically, geographically, and chronologically. These activities and events will be included in ARBA Official Master Calendars and Official Register required in P.L. 93-179.

During FY 1976, ARBA will use its resources and exercise its statutory authority to focus national attention on, promote citizen involvement in, and encourage a national "town meeting" dialogue of, the following specific areas under the three statutory themes:

HERITAGE '76 - LET US REMEMBER

Our Freedoms
Our Form of Government
Our Founding Fathers
Our Forgotten People
The Places and Things of our Past
The Events of our Past

FESTIVAL USA - LET US CELEBRATE

The Traditions of our People
Our Diversity
The Vitality of our Culture
Our Hospitality
The American Scene

HORIZONS '76 - LET US SHAPE TOMORROW

By Setting Goals Today
And Let It Begin With Me
By Securing the Blessings of Liberty
From the Innovations of Today

In carrying out its various day-to-day activities, ARBA will use the above as the primary yardstick to measure whether Bicentennial projects should be accorded official recognition, grant funding, public information assistance or otherwise receive ARBA facilitation and assistance.

Major areas of emphasis in FY 1976 will be:

- Members of Congress. To assist them with their respective interests and involvement in Bicentennial activities.

- ARBA Regional Offices. Will work primarily with the State Bicentennial Commissions, the 2,374 local communities which already have Bicentennial

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programs and which have been designated as Bicentennial Communities, and the universities and colleges which are developing Bicentennial programs.

- Private Sector (including labor unions, foundations, and business). To assist them in their development of programs and to solicit financial and other support for Bicentennial programs developed by the ARBA and Communities.

- Foreign Governments and Groups. To coordinate their programs, provide information and facilitate and schedule their exhibits, performing arts, films, TV programs, etc., in conjunction with other scheduled Bicentennial activities across the nation.

- Federal Departments and Agencies. To develop standards for and evaluate the feasibility, relevance, status and desirability of Bicentennial programs of the Federal departments and agencies, and coordinate Federal programs with those of other planners.

- Volunteer Organizations. To promote maximum citizen involvement in Bicentennial projects at the national, local and international levels.

- National and Local Media. To inform the nation through films, publications, television, and radio regarding the objectives of the Bicentennial as set forth in P.L. 93-179.

- Official Master Calendars and the Official Register of Bicentennial Activities and Events. To include the many additional projects developed nationwide, and refine, categorize and provide such data for the special needs of State Bicentennial Commissions, travel and tourist organizations, and others requiring such information for the Bicentennial planning purposes.

- Commemorative Memorabilia. To provide the fourth in a series of Bicentennial commemorative medals, to design and promote a National Medal for 1976 which will be produced in gold as well as other metals, and to authorize the licensing of official ARBA commemorative items for sale to the public as mementoes of the Bicentennial, as prescribed by P.L. 93-179.

- Administration of Grants. To administer the grants program of appropriated and non-appropriated funds, as prescribed by P.L. 93-179, for State Commissions and other entities as may be approved by the Board for the purposes of the Law.

BUDGET SUMMARY IN BRIEF

	FY 1975	FY 1976	Increase or Decrease
SALARIES AND BENEFITS	$3,380	$3,424	+ 44
TRAVEL	565	470	- 95
RENTS, COMMUNICATIONS, & UTILITIES	450	632	+182
PRINTING/REPRODUCTION	810	723	- 87
SUPPLIES, EQUIPMENT, TRANSPORTATION	188	102	- 86
OTHER SERVICES	2,918	3,274	+356
STATES GRANTS-IN-AID	1,375	1,375	-
APPROPRIATION TOTAL	$9,686	$10,000	+$314

BUDGET JUSTIFICATION

Salaries and Benefits

$3,424,000, an increase of $44,000 from the planned FY 1975 level, is requested for salaries and benefits in FY 1976. These funds are required to support 141 permanent positions, including both Washington and Regional staff, and approximately 28 staff detailed from other Federal agencies. In FY 1976, $466,000 of the salaries and benefit total is required to support staff detailed. The $44,000 increase requested in FY 1976 is a consequence of the full-year impact of the October 1974 government-wide federal pay raise.

Travel

$470,000, a decrease of $95,000 from the planned FY 1975 level, is requested for travel in FY 1976. These funds are required to support the travel and per diem costs of board members, staff, and public and private organization officials invited to participate in ARBA programs. The decrease of $95,000 in FY 1976 reflects a cost reduction needed to offset the increased funds required to meet planned program commitments within the appropriation.

Rents, Communications, and Utilities

$632,000, an increase of $182,000 from the planned FY 1975 level, is requested for rents, communications, and utilities in FY 1976. These funds are required to meet the following costs:

	FY 1975	FY 1976	Increase or Decrease
Washington and Regional Offices			
Space and Warehousing	$230,000	$295,000	+ $ 65,000
Copy Equipment	75,000	75,000	---
Master Calendar Traffic	50,000	100,000	+ 50,000
Exhibit Space	10,000	30,000	+ 20,000
Telephones, Telegrams	60,000	80,000	+ 20,000
Wire Service Rentals	10,000	10,000	---
Regional and State Meetings	15,000	42,000	+ 27,000
Total	$450,000	$632,000	+ $182,000

The increase of $182,000 in FY 1976 reflects the addition of a New York Regional Office, increased Master Calendar terminal use, renovation of exhibit space, increased telephone and telegraph usage, and increased regional, state, and community meetings.

Printing and Reproduction

$723,000, a decrease of $87,000 from the planned FY 1975 level, is requested for printing and reproduction in FY 1976. These funds are required for the publication of the Bicentennial Times, a weekly news bulletin, the Annual Report to the President, news releases, and miscellaneous printing requirements. The decrease of $87,000 in FY 1976 reflects a cost reduction needed to offset the increased funds required to meet planned program commitments within the appropriation.

Supplies, Equipment, and Transportation of Things

$102,000, a decrease of $86,000 from the planned FY 1975 level, is requested for supplies, equipment, and transportation in FY 1976. These funds are required for the movement of ARBA exhibits from New York to Chicago and San Francisco, the movement of ARBA regional exhibits within each region, and general office supplies. The decrease of $86,000 in FY 1976 reflects a cost reduction needed to offset the increased funds required to meet planned program commitments within the appropriation.

Other Services

$3,274.000. an increase of $356,000 from the planned FY 1975 level, is requested for Other Services in FY 1976. These funds are required to meet the following costs:

Program	FY 1975	FY 1976	Increase or Decrease
Bicentennial Archives of Spoken Communication	$ 10,000	$140,000	+$130,000
Call for Achievement	150,000	250,000	+ 100,000
Horizons on Display	150,000	250,000	+ 100,000
Local Folk Festivals	254,000	500,000	+ 246,000
Moving With The Arts	100,000	110,000	+ 10,000
Visitor's Services	49,000	50,000	+ 1,000
Activities			
Age of Franklin & Jefferson Exhibit	$685,000	$726,000	+$ 41,000
U.S.A. '76 Exhibit	425,000	210,000	- 215,000
U.S.A. '76 "200 Yrs. of America Through Film"	365,000	235,000	- 130,000
Operational Support			
Design of ARBA Publications	$ 40,000	$ 40,000	---
Photo and Film Processing	40,000	60,000	+ 20,000
Regional Office P.I. Support Services	200,000	200,000	---
Regional Meetings & Conference Support	50,000	65,000	+ 15,000
U.S. Government Facilitating Services	400,000	438,000	+ 38,000
	$2,918,000	3,274,000	$356,000

Increased program costs are attributable to three major factors:

1. Transition from program evaluation stage to actual implementation.
2. Transition from fabrication of Franklin-Jefferson Exhibit to international and domestic showings.
3. Increased demand for media support in photo-production.

Cost decreases are due to:

1. U.S.A. '76 Film will have less production related costs.
2. U.S.A. '76 Exhibit will have showing and maintenance expenses as opposed to fabrication costs.

State Grants-In-Aid

These funds will provide direct grants of $25,000 to each of the States, District of Columbia, Puerto Rico and Territorial Bicentennial Commissions as stipulated in P.L. 93-179. This funding is for direct operating/ administrative support. The funding level of $1,375,000 for this account was established by P.L. 93-179, Section 9.

State Project Matching Grants

As cited in P.L. 93-179, Section 9, the ARBA will conduct a $200,000 direct matching grant program as established in Section 9(b) of this Act to each of the State, District of Columbia, Puerto Rico, and Territorial Bicentennial Commissions in support of Bicentennial programs and projects. The States, the District of Columbia, Puerto Rico and Territories are prohibited from using these funds for administrative operating support.

Administrative Services

The Administrative or Management support area includes the Office of the Administrator and Deputy, Office of the General Counsel, Legislative Liaison, and a small administrative coordination team which works with the Department of Interior facilitating services unit.

The Fiscal 1975 funding level underwrote staff costs and the administrative support agreement with the Interior Department.

A small increase in the Fiscal 1976 funding level will support anticipated increases in the general administrative overhead of the ARBA.

Fiscal	1975 Funding Level	$1,096,000
Fiscal	1976 Funding Level	$1,220,000

Bicentennial Communities

During FY '75, the Bicentennial Communities Program has continued to grow as we approach the Bicentennial year. The program has been stimulated by the joint efforts of the United States Conference of Mayors and the National Association of Counties. Regional meetings have been used to inform and encourage local communities to join the program. Three more of these meetings are planned for this Spring. During the first seven months of FY '75, 1,381 cities and counties have been officially recognized. The program is now averaging over 250 designations each month.

During FY '75, this program was expanded to include a College and University Campus Program. The first university was designated in November 1974, and by January 1975 seven other campuses had received designation. Also during this period, an office was establsihed to assist native Americans in planning their participation in the Bicentennial. As of January 1975, ten Indian reservations had been officially designated Bicentennial Communities.

During FY '76 the goal of 5,000 designated communities should be exceeded. Added assistance will be given to the designated communities wishing to expand their programs in the effort to encourage full citizen participation. The effort to involve more native Americans and the universities and colleges in the Bicentennial will be expanded.

Fiscal 1975 Funding Level	$585,000
Fiscal 1976 Funding Level	$460,000

BICENTENNIAL EXHIBITS AND FILMS

"The World of Franklin and Jefferson" Exhibition

On January 10, 1975, the American Revolution Bicentennial Administration launched the U.S. Bicentennial abroad by opening its exhibition "The World of Franklin and Jefferson" at the Grand Palais in Paris.

The Franklin/Jefferson exhibition was designed for the ARBA by the Office of Charles and Ray Eames in cooperation with the Metropolitan Museum of Art in New York through a $500,000 grant from the IBM Corporation. It is being managed and operated abroad by the U.S. Information Agency.

The exhibition spans 120 years of American history (1706-1826), from the American Colonial experience and its European heritage, to the point when the young nation was able to make its great move westward. It follows the careers of Franklin and Jefferson through the important times during the formulation of the Declaration of Independence, throughout the Revolutionary War, and during the early stages of the Constitutional government.

Following the premiere showing in Paris, the exhibition will proceed to the National Museum in Warsaw and to the British Museum in London in late 1975. In March, 1976, the exhibition will begin its tour of the United States at the Metropolitan Museum of Art in New York, and then visit the Art Institute of Chicago before ending on the West Coast.

Fiscal 1975 Funding Level_____$685,000
Fiscal 1976 Funding Level_____$736,000

"USA '76: The First Two Hundred Years" Exhibition

The American Revolution Bicentennial Administration has prepared a major Bicentennial traveling exhibition for circulation in the United States during 1975 and 1976.

Entitled, "USA '76: The First Two Hundred Years," the 7,500 square foot exhibition is a reminder that the United States has a unique past, a fast-changing present and a future full of new challenges. The exhibition consists of eight satellite sections, all of which combine to form an overview of the Bicentennial commemoration. It contains films, photographic reproductions and an operational Bicentennial Information Center.

The designer of the exhibition for the ARBA is George Nelson and Company, a New York firm with an international reputation in the field of visual communications. The "USA '76" exhibition will officially open its 11 city tour of the United States at The Museum of Science and Industry in Chicago on February 18, 1975. It will remain there as part of the Museum's

Bicentennial Program until April 20 and then move across the country until late 1976.

Fiscal 1975 Funding Level $435,000
Fiscal 1976 Funding Level $230,000

"America": A Bicentennial Film Celebrating Our Land and People

This film spectacular, prepared by the American Film Institute for the ARBA, will be a two-hour motion picture in color and in black and white composed of great scenes from great American films, structured and woven together to show how the art of motion pictures has expressed the American idea. The film will portray America in its struggles and its victories, in its glories and its depths -- but always, in its grandeur. The grandeur of its people. . . .

The film will be composed of scenes from over 100 American motion pictures which depict varied aspects of American life and character.

Release of the completed film is scheduled for January, 1976, with the World Premiere to take place in Washington at the John F. Kennedy Center for the Performing Arts. This will be an invitational premiere for the President, the Cabinet, Congress and members of the Diplomatic Corps.

It will go into general release shortly after the World Premiere and will be offered to major distributors to bid on for theatrical distribution rights. The film will be shown throughout the nation during 1976 so that each theatre might become a local festival ground for the Bicentennial Celebration.

On July 4, 1976, the film will have special premieres in selected foreign capitals, hosted by the American Ambassadors or other officials. The film will go into general release internationally through the U.S. Information Agency, or normal commercial outlets.

After its general release in the United States, the film will be distributed in 16 mm. throughout educational film outlets. It will reach a sizable audience this way, through screenings at schools, museums, churches and civic organizations.

Fiscal 1975 Funding Level $365,000
Fiscal 1976 Funding Level $235,000

BOARD AND COUNCIL SUPPORT

The American Revolution Bicentennial Board, composed of 11 members, was created by PL 93-179 and charged to:

(1) provide policy and guidelines in carrying out the basic purposes of the Act;

(2) give final approval to grants made under the authority of the Act;

(3) receive advice and information from the Council and the Administrator with respect to the development of policy and guidelines; and

(4) make a continuing study of the activities of the Administration and report to Congress on its findings and recommendations.

The Act requires that the Board meet at least once each month and it may hold such other meetings as it deems appropriate.

Public Law 93-179 also created the American Revolution Bicentennial Advisory Council, composed of 25 private citizens appointed by the President. The Council provides advice to the Administrator and the Board so that both will have the benefit of a wide range of opinions and views bearing on the policy determinations of the Board and the operations of the Administrator. The Council was appointed mid-way through FY '75. The Act requires that the Council meet at least once every other month and it may hold such other meetings as it deems appropriate.

The monies requested will cover the costs of the required meetings for the Board and Council, the provision of a small support staff and reimbursement for travel expenses as provided for by law.

FY '75 Funding Levels: $235,000

FY '76 Funding Levels: $255,000

Communications and Public Affairs

News Media Services - Release of daily news releases, feature stories; answering specific media queries and providing general background information; provide assistance in obtaining interviews; arrangements for news conferences.

FY 75 - Over 50% of releases are features opposed to timely news releases--much workload generated by non-media sources, i.e., Bicentennial Commissions, Government and private organizations and general public. Definite trend noted in media requests for information and support (September-November 1974--three media queries per day has grown to 10-15 in January 1975). More news releases (vice features) as programs get underway.

FY 76 - Forsee a great surge in media requests--daily queries, background information and briefings, interviews, etc., will require readily available handout materials and personnel.

Speakers Bureau - Provide speech material, write speeches, prepare itineraries and logistical support to Congress, the ARBA Board and the ARBA Advisory Council. Service the requests for speakers from groups, organizations and associations on an international, national and regional basis.

FY 75 - Speakers Bureau consisted of two employees serving the needs of the Administrator, the Deputy Administrator and various senior staff. Prepared speakers manuals for all Members of Congress and serviced individual requests for speeches/speech material.

FY 76 - Increased requests coming from Congress, States and private organizations for speakers, speech material, kits, etc. Anticipate a demand for such services to continue to increase greatly to and through July 4, 1976. Expect a particularly heavy demand for information from members of the "Bicentennial Congress."

Special Events - Coordinate, facilitate and aid in scheduling of events in commemoration of the Bicentennial--generally festive and one-time only in nature (half-time shows, parades, pageants, etc.)

FY 75 - Much of what was done was "last minute" involvement, i.e., either the sponsor of an event suddenly became aware of ARBA or we discovered an event was in final stage of development or production and offered assistance. A recent trend is noted whereby sponsors contact ARBA early in planning. This results in more orderly participation but also results in more demands for ARBA assistance and coordination in early planning and execution of events. Also plans, coordinates

and assists in official ARBA ceremonies (community flag presentations, official recognition, etc.).

FY 76 - Due to past successes, ARBA's greater visibility, and volume of additional events planned the numer and diversity of special events will increase steadily. It will grow increasingly in volume and demand for assistance as we approach July 4, 1976.

Audio-Visual Services - Produce audio-visual material to service the request of the television and radio community plus the request for films, photographic and audio/visual presentations from the general public. Assist Radio-TV networks/stations to produce special programs.

FY 75 - Serviced TV and Radio with public service material on a monthly basis. A pattern has developed during the second half of FY 75 indicating TV and Radio stations both public and commercial will be requesting a great deal more support material. i.e., film clips, slides, script information, etc.

FY 76 - Demands from networks, stations and service groups for films, radio tapes and other audio-visual services and support will increase dramatically as programs now in the planning stage for 1976 go into production. A radio spotmaster to service radio stations with daily audio material is anticipated.

General Public Information Support - Answer inquiries from the general public, both phone and mail, for information, material and publications. Prepare and supply informational kits.

FY 75 - Inquiries and requests the first half of FY 75 averaged 50 phone calls per day and 10,000 written requests per month. (This does not include requests to be added to the Bicentennial Times mailing list.

FY 76 - It is anticipated that the demand for such material will become so great that a special arrangement for support by GSA, an outside firm or an increase in personnel will be necessary to be responsive to the requests of the general public.

Editorial Services - Provide finished editorial and feature material to national membership publications and magazines of general circulations. Write and edit Bicentennial Times, Newsletters, Bulletins and other ARBA house organ material. Supply features/material in answer to the growing number of requests.

FY 75 - Limited capability in this area for servicing outside requests. Fill requests as they come in but no advertisement of this capability.

FY 76 - Strengthen this area to be responsive to increasing needs of magazines and national trade and membership publications for feature material both as Bicentennial activity increases and existence of ARBA services in this area becomes better known.

Printing and Publications - Coordinate manuscripts for publications, supervise the printing of publications and the development and supervision of a distributions system. Publications will increase to a minimum of 8 from 3 in FY 75.

FY 75 - Request for written material and other publications has been increasing at a rate of 3,000 per week for all periodicals. Individual monthly distributions:

	FY 74	1st 6 mos. FY 75
Bicentennial Times	38,000	65,000
Bicentennial Bulletins	4,000	6,000

FY 76 - Need to develop and print a series of publications directed to general requirements (brochures on Bicentennial themes/community and personal involvement, etc.) and specific needs (handbooks on how to assist foreign visitors). Provide the capability for increased distribution of Bicentennial Times.

Internal Information and Support - Provide Communications and Public Affairs materials, support and counsel to ARBA staff (speeches, interviews, public appearances, etc.), Regional Offices and State Commissions.

FY 75 - An "as-requested" operation; answering queries, providing information and support where required to do so. A start made to formalize such support by contracting for professional Public Information assistance in each region. Provide news clips from around the country.

FY 76 - Must plan for an increased demand for such services as regional and master calendars are produced; Bicentennial Communities and programs grow in scope and number. As activities increase and as more individuals, groups and communities become officially designated by ARBA they will most properly expect Communications and Public Affairs guidance and support as will our own staff members and staffs of State Commissions.

Federal Government Liaison - Meet with or otherwise communicate with public affairs officers of other Federal Government agencies on a regular basis to coordinate activities, exchange of information and combine resources to obtain maximum usage of personnel and equipment in support of Bicentennial programs.

FY 75 - Little or nothing done in this area. Generally, Federal Agency plans had not progressed to the point where Public Affairs Officers of agencies had become active in Bicentennial efforts. In addition, ARBA Communications and Public Affairs had not actively sought out such liaison.

FY 76 - The need for such coordination can be felt in volume of contacts made with ARBA by Public Affairs Officers or other agencies in recent months. This trend will most certainly increase as their projects develop.

Exhibits - Coordinate the scheduling and maintenance of all standard show, tabletop and stacker exhibits. Supervise the showings with the assistance of the Regional Directors.

FY 75 - One twenty foot show exhibit, 10 table top exhibits, one 8 panel Communities exhibit, 1,000 2' x 2' stacker exhibits and eleven 14 panel exhibits were constructed in the third and fourth quarters of FY 75 and made available for general scheduling by May 1975.

FY 76 - Indications are that great demand will be placed on the use of the exhibits. Such demands from the public will require full-time personnel for scheduling, supervision and maintenance.

Fiscal 1975 Funding Level_____$1,205,000
Fiscal 1976 Funding Level_____$1,220,000

International Activities

During the first half of FY-75, the International Affairs Division has seen a sharp rise in Bicentennial interest on the part of foreign governments. Twenty-two foreign Bicentennial Committees and/or Interdepartmental Groups have been established. Other governments are planning to form similar committees in the near future.

In 1975, the French were the first to announce on July 10 participation in the Bicentennial through the offer of a sound and light spectacle at Mount Vernon. The U.K., Germany, Australia, Italy, Iran, Japan and the Scandinavian countries are planning significant participation in the Bicentennial, although no announcements have yet been made, except the Italian Government's million dollar subsidy for the participation of La Scala in the Kennedy Center's Bicentennial Festival. Approximately 50 governments have discussed Bicentennial plans in some detail on a continuing basis with the International Division.

By late 1975 and early 1976 major foreign governments will have announced their projects for the Bicentennial, although other governments will continue to develop plans into 1976. During 1976, it is expected that ARBA will be deeply involved with official visitors, both

high and low, arriving in connection with foreign participation in the Bicentennial. Estimates of such visits are already in preparation and in discussion with the White House and the State Department.

As in 1975, the International Division will continue to be heavily involved in plans for people-to-people participation in the Bicentennial as well as in assisting embassies and other organizations overseas in their Bicentennial plans, which are already assuming significant proportions. Furthermore, this Division will continue to provide pertinent information and facilitative assistance to other Federal Agencies concerned with international programs, particularly the USIA in developing Bicentennial programs for overseas audiences.

The International Division has made a major contribution in 1975 and will continue to make a major contribution in 1976 to foreign participation in the Smithsonian Folklife Festival and to the Smithsonian's Traveling Exhibition Service's "Salute to the States" Bicentennial program (foreign participation).

Fiscal 1975 Funding Level_____$110,000
Fiscal 1976 Funding Level_____$135,000

MASTER CALENDAR SERVICES

INTRODUCTION - The Congress of the United States has directed the American Revolution Bicentennial Administration,

> *"...as a primary function shall prepare the master calendar of events of local, State, National and international significance which will take place between March 1975 and December 1976....the Administrator shall provide for the Bicentennial master calendar or register of programs and projects, and in other ways provide a central clearinghouse for information and coordination..."* (Public Law 93-179)

OFFICIAL MASTER REGISTER OF BICENTENNIAL ACTIVITIES - This quarterly publication is ARBA's primary record of the thousands of variegated nationwide Bicentennial projects and events. Thus far in 1975, three editions, of 5,000, 10,000 and 10,000 copies respectively, have been produced and given wide distribution to all major planning, coordinating and media groups. Major improvements in content and style have permitted a growth from 312 pages and 1920 projects in the July 1974 edition, to 660 pages and 4619 projects in the January 1975 edition. The difficult task of gathering and purifying the data gathered thus far has been the major occupation of the Master Calendar Services (MCS) staff.

The role of the Official Master Register will change in FY 1976 with the advent of the planned Master Calendar publications. Quarterly production of the Register will be continued as growth in Bicentennial planning continues, and further changes in format and content will be

implemented to keep each edition to a reasonable size. Event details will be moved to the calendar publications, and non-viable projects will be removed. Major editorial efforts will continue to improve the accuracy of the Official Master Register as the permanent record of Bicentennial activities, in preparation for archiving in FY 1977.

MASTER CALENDAR PUBLICATIONS - As Bicentennial preparations move from emphasis on planning toward production, more attention is being paid to information on events. Over the focal 22-month period, hundreds of millions of people will comprise participating and vicarious audiences of Bicentennially-oriented events. Master Calendar Services will serve as a clearinghouse through which event information will flow to established media, to reach these audiences. During FY 1975, MCS has been heavily involved in a program of enhancement of the quality and quantity of event information on file--an activity which will begin to bear fruit in June of 1975 with the release of the first two of a series of event calendar publications.

A national-level calendar will include summary information on the most significant events in the next six-month period, and a quarterly regional calendar will include details of all events on file with occurrences in the coming quarter.

In FY 1976, continuing maintenance of the extensive files of event data from which these and other publications are drawn will be a major MCS activity. Constant review and updating will be required to insure the accuracy demanded by domestic and international press, broadcast media, and tour and travel organizations, for the benefit of the American public and foreign visitors. Feedback on early efforts will suggest improvements to the primary publications, and will dictate the design and production of other publications to fill specific needs. The development efforts in FY 1975 make it possible to produce different publications, as needed, in a few weeks' time.

ON-LINE TERMINAL SERVICES - Because of two key factors--limited budget and short lead times--conventional forms of communication do not suffice in filling the needs of coordination and public information. Prior to FY 1975, ARBC began to use teleprocessing--a large computer, telephones, and remote terminals--to solve the burgeoning problem. The Bicentennial Information Network (BINET) was designed and developed. During FY 1975, ARBC and the successor ARBA organization has effectively used BINET as a means of internal communication among and between its various headquarters groups and regional offices.

As the pace quickens in FY 1976, BINET terminals will be relied upon to an even greater extent for the acquisition and dissemination of event information. The lead times are becoming inexorably shorter, and because BINET is the quickest and least labor-intensive means at hand, the use of this on-line terminal service for communication is expected to grow proportionately faster in FY 1976 than will other means. Further capitalization will not be required, as equipment and services are

available through rental and requirements-type contracts. Private sector organizations and other Federal agencies will make their own arrangements for access to BINET, with no additional cost to ARBA beyond the small administrative costs of initial hookup. As ARBA and the State Bicentennial Commissions become increasingly interdependent for event and visitor services information, ARBA will make BINET access available to those State Commissions who can best serve ARBA's clearinghouse requirements. This activity is a continuation and logical expansion of the shared-cost program which is beginning this month in selected States.

SPECIAL INFORMATION REQUEST SERVICE - Current issues such as energy, ethnic and minority interests, and ecology cross-hatch to further complicate the task of producing a balanced commemoration, and thus special programmatic analysis and monitoring must be used. To fill the hundreds of individual requests for internal reports and summaries of Bicentennial activities, MCS provides tailor-made reports from its extensive files. During FY 1975, such reports were produced for programming, grant analysis, budgetary and other internal purposes in ARBA. Over 50 reports were prepared for outside organizations, with costs being recovered through user charges.

This service will expand considerably in FY 1976. Though the cost recovery produces Treasury revenue, MCS must budget all costs for this service assuming no recovery. Primary users include the many organizations who can and want to give broad and effective exposure to Bicentennial news and happenings. Many reporters and writers for such organizations are dissatisfied with the complexity of the on-line service, and the rigid formats and size of the publications. Fortunately, most of these special reports and extractions can be automatically produced, at a cost of $15-150 each.

BICENTENNIAL COMMUNITIES SYSTEM - The law creating the new Administration placed special emphasis on local Bicentennial activities. To reach out to localities with the message, the Bicentennial Community recognition process was established by another division. During FY 1975 MCS undertook the development of a records and communication management system for this project. The system maintains a file for each community; prepares a variety of status, statistical and notification listings; provides contact lists and mailing labels for other correspondence; and produces updated listings of all recognized communities on demand, and for printing in the Official Master Register.

The number of communities recognized thus far is 2713, and is likely to double by the end of FY 1976. This growth rate can be maintained only through diligent application and extension of the automated techniques employed thus far.

Fiscal 1975 Funding Level _____ $725,000
Fiscal 1976 Funding Level _____ $1,010,000

PROGRAM IMPLEMENTATION

Introduction

The ARBA has a responsibility for assuring the development of a balanced program for the Bicentennial commemoration, encompassing the themes of Heritage '76, Festival USA, and Horizons '76. In addition to providing official recognition to programs of national and international significance, the ARBA will facilitate the development of the following activities considered essential for the Bicentennial:

Bicentennial Archive of Spoken Communication ($140,000)

The ARBA has contracted with the Speech Communication Association to conduct a feasibility study on the establishment of a Bicentennial Archive of Spoken Communication. The Archive would preserve: (1) Recordings of specific events held during the Bicentennial commemoration and (2) recordings of communications acts and activities which are representative of life in the United States in the 200th Year of its founding.

A planning committee has met twice during Fiscal Year 1975 to establish content parameters, to survey existing spoken communication archives, to explore various repository possibilities, and other technical considerations associated with the operation of the Archives.

In Fiscal Year 1976, the funds requested will be used to assist the Speech Communication Association in the collection of selected recording material of significant Bicentennial events and activities.

Fiscal 1975 Funding Level	$ 10,000
Fiscal 1976 Funding Level	$140,000

Call for Achievement ($250,000)

The Citizen Involvement Network received a matching grant from the ARBA in Fiscal Year 1975 to undertake a major research and evaluation program on community goal-setting. This program will provide guidelines and other basic information that can be used by communities in developing a "Call for Achievement: Community Goal-Setting" program for the Bicentennial.

The funds requested for FY-1976 will be used to expand the availability of general and specific information on community goal-setting; to conduct regional workshops for communities to exchange experiences on their programs; and to produce a 28-minute film highlighting activities under the "Call for Achievement" program.

Fiscal 1975 Funding Level	$150,000
Fiscal 1976 Funding Level	$250,000

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Horizons on Display ($250,000)

The ARBA has been working with the U.S. Department of Housing and Urban Development which will administer a National Bicentennial program to identify and display 200 exemplary projects across the nation that illustrated achievements in meeting 20th Century needs for an improved quality of life. During FY-1975, HUD will evaluate nominations and select projects for inclusion in the program.

The funds requested for FY-1976 will be used for the development of a traveling exhibition on the program, for the preparation of educational material to be used at display sites, for the completion of a catalogue of all display sites; and for the issuance of a guideline booklet to assist States and communities in the development of localized "Horizons on Display" programs.

Fiscal 1975 Funding Level	$150,000
Fiscal 1976 Funding Level	$250,000

Local Folk Festival ($500,000)

To achieve the Bicentennial arts goal of providing activities which express the pluralistic nature of American society, the ARBA has assisted the Smithsonian's American Folklife Festival in expanding its touring programs. ARBA support of the nationwide touring of this program assures the availability of folk materials and foreign performers to local communities; serves to catalyze the interest and efforts of a wider range of community groups; and provides the opportunity for people-to-people contact.

In FY-1976, the ARBA will facilitate the expansion of local folk festivals. Technical assistance from a bank of folklore experts, utilizing the membership of the American Folklore Society, will be operated on a regional basis out of five selected university folklore departments in cooperation with the Smithsonian Institution. This effort will enable communities to identify those folk/ethnic traditions within the area and will enable the community to stage a high quality folk festival expressive of indigenous and imported traditions of the community.

Fiscal 1975 Funding Level	$254,000
Fiscal 1976 Funding Level	$500,000

Moving With the Arts ($110,000)

The ARBA has undertaken a study to determine the feasibility of establishing under contract a coordinating organization to facilitate the touring of domestic and foreign performing groups which will not be scheduled through commercial agents during the Bicentennial. Assuming the need for such a coordinative function, the funds requested

for FY-1976 will be used to obtain essential contractual services to facilitate touring of performing groups in cooperation with State Bicentennial organizations and communities.

Fiscal 1975 Funding Level	$100,000
Fiscal 1976 Funding Level	$110,000

Visitor's Services ($50,000)

The efforts of the ARBA have been concentrated during FY-1975 on areas of priority need that are not being addressed through existing activities. The ARBA has provided information on low-cost accommodations and will publish a Visitor Services Handbook for use by communities in preparing for both the domestic and the international visitor.

During FY-1976, it is anticipated that significant efforts will be requested to alleviate substantial problems associated with high visitor impact. The ARBA proposes to use the funds requested for FY-1976 in preparing informational material to highlight selected actions to improve visitor services for the Bicentennial.

Fiscal 1975 Funding Level	$ 49,000
Fiscal 1976 Funding Level	$ 50,000

The ARBA Program Staff will also work with national organizations in finalizing programs and activities that will assure the widest possible participation in the Bicentennial.

Regional Offices

To assist State and local Government Commissions in their planning and implementation of programs, there are Regional Offices in each of the ten Federal Headquarter cities. During FY '75 additional employees have been added due to the increased workload. Coordination of the multitude of Federal, State, and local programs and projects are the responsibility of these offices. A regular schedule of Regional meetings, attendance at State and local meetings and ceremonies stimulate increased participation. The Regional offices overview and recommend the approval of grants under the ARBA Grant Program.

During FY '76, this workload will be increased to meet the needs of this grassroots participation. The handling of grant requests under the ARBA Grant Program will also increase. These offices are to provide assistance to regional and local media by personal communication and dissemination of printed information.

The Regional Directors are ex-officio members of the Federal Regional Councils and members of the Federal Executive Boards. These Federal groups are providing valuable assistance to the Regional offices,

as ARBA undertakes its coordination duties. In addition, Federal Regional Directors have helped by taking part in the Bicentennial Awareness Program three speeches and appearances at community designation ceremonies.

Fiscal 1975 Funding Level _____ $950,000
Fiscal 1976 Funding Level _____ $1,045,000

OFFICE OF RESOURCE DEVELOPMENT

Private Sector Activities

During FY 1975, contact was made with over 3,000 corporations, trade associations, service, civic, fraternal organizations, labor unions and various religious institutions to motivate and facilitate meaningful participation in ARBA officially recognized Bicentennial programs or to help generate a Bicentennial program of their own. As a result of these initiatives, major programs like the J.C. Penney Company's Bicentennial Musical Celebration, the American Freedom Train, Project Forward '76, and the National Bicentennial Service Club Alliance were recognized by ARBA as major programs of the private sector. In addition, pursuant to the mandate of Public Law 93-179, this Section sought to draw upon the resources of the private sector including, but not limited to, securing funding assistance for national programs officially recognized by ARBA such as the Smithsonian Institution's Festival of American Folklife, the Department of Interior's Johnny Horizon '76 program, the Pennsylvania State Bicentennial Commission's Wagon Train Pilgrimmage program.

FY 1976 Projected Activities

The primary thrust of this division for FY 1976 will shift to the obtaining of adequate resources to facilitate the completion of ARBA officially recognized national Bicentennial programs of the public and private sectors with a major emphasis on raising revenues from foundations, corporations, and Federal agencies needed by these quality Bicentennial programs to enable them to carry out their activities. In addition, funding will also be sought for certain Bicentennial programs conducted by Federal agencies and departments.

Commemorative Sales

During FY 1975, the ARBA issued its third in a series of five official Philatelic Numismatic Combinations (PNCs) and Solo Bronze and Silver Unique medals for 1974. Gross revenues for the 1974 PNC and medals programs total $5,500,000 with net revenues available for distribution in the form of matching grants totalling $4,000,000.

During FY 1976, the 1975 PNC and Solo Bronze and Silver Unique medals will be offered. The PNC will be sold during the month of July 1975 and

the Bronze and Silver medals during October 1975. In addition to marketing these commemorative items by direct mail to the United States Mint's mailing list of nearly three million collectors and the public service advertising program in national magazines and local newspapers, the ARBA is working with the Disabled American Veterans, the American Express Corporation, FTD Florists' Association and others who are assisting in the promotion of these items without cost to the ARBA. Total sales estimated for FY 1976 are $8,900,000 with net proceeds of $6,800,000 to be distributed pursuant to the directives of the ARBA Board.

Commemorative Logo Licensing Program

Pursuant to Section 4(b)(4) of P.L. 93-179, the ARBA Board by resolution has provided for a program to authorize the use of the ARBA logo to appear on a select number of commemorative and informational products. Under guidelines adopted by the Board, 15 licensing agreements have been entered into by the ARBA with manufacturers (as of 2/18/75) to produce a product bearing the ARBA logo. For this right, the manufacturer remits to the ARBA negotiated royalties based on the actual sale of the product. During FY 1975, it is estimated that gross royalty revenues will be $700,000; FY 1976 royalty revenues are projected to be approximately $2.3 million with about 75 licensing agreements to be concluded by the end of FY 1976.

Federal Government Bicentennial Program Coordination

FY 1975 - During FY 1975, the ARBA reviewed for official recognition over 200 Federal Bicentennial programs of the respective agencies and departments; developed a publication, THE FEDERAL BICENTENNIAL FACT BOOK, which serves as a ready reference for State Bicentennial Commissions, Federal Regional Council representatives in the 10 Federal Regional Cities, and had primary responsibility for the coordination of Federal agency activities with the District of Columbia Bicentennial Commission, the Washington Council of Governments and the ARBA Federal Bicentennial Coordinators Task Force. (THE FEDERAL BICENTENNIAL FACT BOOK is available for review.)

FY 1976 - During FY 1976, the major responsibility of this division will be to coordinate, develop and implement the operations and logistics for the visitor impact in Washington, D.C. in 1976 and to assist with coordinated plans for visitor services in the Northeast Corridor of the United States. Additionally, this division serves as primary coordination and information needs for the Federal agencies and departments in the field offices, working through the 10 Federal Regional Councils, and the Federal Executive Boards in 25 cities, all of which are served by the ARBA Regional Offices.

Fiscal 1975 Funding Level_____$540,000
Fiscal 1976 Funding Level_____$550,000

FRANKLIN DELANO ROOSEVELT MEMORIAL COMMISSION

Analysis by Activities

FY 1976 Estimate and July 1 - September 30 Period
Franklin Delano Roosevelt Memorial Commission

Activity	FY 1976 Estimate	Estimate July - Sept. 30, 1976
1. Franklin Delano Roosevelt Memorial Commission	...	$6,000
Total	...	$6,000

For necessary expenses of the Franklin Delano Roosevelt Memorial Commission, established by the Act of August 11, 1955 (69 Stat. 694), for the period July 1, 1976, through September 30, 1976, $6,000, to remain available until expended.

Program and Financing (in thousands of dollars)

Identification code 31-05-0700-0-1-910	7/1/76 to 9/30/76
Program by activities:	
Franklin Delano Roosevelt Memorial Commission	6
Total Program Costs, Funded	6
Change in selected resources (undelivered orders)	-
10 Total Obligations	6
Financing:	
21 Unobligated balance available, start of year	-
24 Unobligated balance available, end of year	-
40 Budget Authority (appropriation)	6
Relation of obligations to outlays:	
71 Obligations incurred, net	6
72 Obligated balance, start of year .	-
74 Obligated balance, end of year ...	-
90 Outlays	6

Justification

Public Law 92-332, approved June 30, 1972, provides authorization for appropriation of such sums as may be necessary to carry out the provisions of the Joint Resolution approved August 11, 1955 (69 Stat. 694) to formulate plans for a memorial to honor Franklin Delano Roosevelt, the nation's 32nd President.

Three earlier FDR memorial plans have been rejected. The Commission has decided that the memorial will include a sculpture of President Roosevelt, rose plantings, and a water feature as the focal point in the design. It will be situated on about 27 acres of parkland in West Potomac Park, across the Tidal Basin from the Jefferson Memorial and south of the reflecting pool. This site was approved in 1959.

Appropriations in the amount of $6,000 are requested to continue the formulation and execution of preliminary plans in developing the approved site, supervising the preparation of working sketches, sub-area plan and environmental impact assessment, and continuing the necessary administrative work incidental to completing the project.

Joint Federal-State Land Use Planning Commission for Alaska

Salaries and Expenses

Appropriation, 1974	$ 694,400
Transferred to "Operating Expenses, Public Buildings Service", GSA.	- 81,708
Total Available, 1974	$ 612,692
Appropriation, 1975	$ 693,000
Total Available, 1975	$ 693,000

Summary of Increases and Decreases, 1975

	Base For 1976	Increase 1976
To provide for salary increases per October, 1974 Pay Raise (E.O.11811)	----	$ 15,000
Net increase, 1976		15,000
Budget estimate, 1976		708,000

Analysis by Activity

Activity	Fiscal Year 1974 Amount Available	Fiscal Year 1975 Total Appropriation	Fiscal Year 1975 Transfers	Fiscal Year 1975 Amount Available
Salaries and expenses	$ 612,433 a/	$693,000	---	$693,000
Unobligated balance lapsing	259	---	---	---
Total	$ 612,692	$693,000	---	$693,000

a/ Excludes transfer to GSA ($81,708)

Salaries and Expenses

	Fiscal Year 1974 Amount Available	Fiscal Year 1975 Amount Available	Fiscal Year 1976 Estimate	Increase (+) 1976 Compared to 1975	Page Ref.
Salaries and expenses	612,433	693,000	708,000	15,000	2
Unobligated balance lapsing	259	---	---	---	
Total	612,692	693,000	708,000	15,000	

Salaries and expenses: FY 1975, $693,000; FY 1976, $708,000; an increase of $15,000. The increase consists of:

Increase (+) or Decrease (-) Amount	Positions	Total Program	Total Positions	Explanation
(1)$15,000	---	$ 15,000	---	To provide for salary increases per Executive Order 11811.
Total 15,000	---			

Cost Factors Involved in Increase

(1) To annualize the October, 1974 pay raise for civilian employees, $15,000.

Need for Increase

(1) Salary Increases +$15,000

An increase of $15,000 is required to annualize the October, 1974 (Executive Order 11811) pay raise for civilian classified employees in this appropriation.

Program of Continuing Work

The Joint Federal-State Land Use Planning Commission for Alaska was established in accordance with Section 17 of the Alaska Native Claims Settlement Act (Public Law 92-203) and by Act of the State of Alaska (AS 41.40.010). The Commission commenced its activities in June, 1972 with the establishment of an office in Anchorage, Alaska. In July, 1972, the Governor of Alaska and the Secretary of the Interior appointed eight Commissioners and assisted with the organizational meeting of the Commission.

The work program approved by the full Commission emphasizes policy studies and issue analyses directed toward both short-term problems requiring immediate solution, and anticipated long-term conflicts necessitating the identification of processes and institutional arrangements to handle these conflicts as they arise. The major outputs of the FY 1976 program will be incorporated in a final report to the Federal and State administrations, to Congress, and to the Alaska legislature. The report will include:

1. Recommendations to insure the compatibility of economic growth and development with environmental objectives, and the economic and social well-being of all Alaskans.

2. Recommendations on changes in laws, policies and programs to improve coordination among landowners and managers, and to avoid conflicts among land users.

To develop the above recommendations, three interrelated studies focusing on social and economic policy, management systems, and land systems will be undertaken. The studies will be accomplished through the combined efforts of staff, interagency and intergovernmental task forces, the Commission's advisory committee, and organizations, or individuals under contract to the Commission. As in past Commission work, involvement of the public in the policy studies will be extensive and accomplished by means of conferences, seminars, public hearings, and surveys. A large part of the Commission's effort expended on the substantive work program will require contracted assistance. Although it is planned that the Commission staff will undertake some of the analytical work, they will function more as program managers with analysis concentrated on integration and synthesis of work performed by others for the Commission's review and deliberation.

The main thrust of the Social and Economic Policy Studies is to analyze growth trends with the purpose of identifying future levels of economic activity and the potential for new forms of economic growth. Of particular importance will be a study consisting of an analysis of external world and National trends--principally socio-economic trends, technological developments and resource availability -- which will influence supply and demand for raw materials and resources which are now available, or which may become available in Alaska in the future. This study will help identify economic threshold levels at which changes in the world economy and resource demand pressures will be felt in Alaska, and will impact the demand for and use of Alaska lands.

The purpose of the management systems studies will be to formulate alternative land management strategies that would be compatible with the unique character of Alaska lands, with emerging demands on their use, and with new patterns of control and ownership resulting from implementation of the Alaska Native Claims Settlement Act. These studies will include inventory of land management systems describing agency operations, structures, functions, and philosophies, and in particular, an evaluation of the extent to which existing land management systems are responsive to social and economic problems and impacts.

The land systems studies will generate alternative land classification schemes that reflect the interdependence among the major ecosystems of Alaska, the geologic availability of mineral resources, and the likely future paths of social change and economic growth. To help identify policy alternatives for Congress and the State legislature, aggregations of different land classifications will be developed.

In additon to the Commission's basic program embodied in the policy development and research areas, technical services to Native organizations and assistance to Federal, State, and local governments will continue. This assistance program will involve heavy reliance on the expertise and service programs of other agencies, both through direct referral and through the use of Interagency Task Forces. A network of technical services that can be organized and coordinated through the Commission is envisioned. The massive volume of technical information contained in the Statewide resource inventory will be maintained and updated.

With the completion by the Commission of the Statewide inventory of natural resources in early FY 75, the need for a large team of experts from numerous resource fields has been met. In the second phase of its work, staff needs will require persons with an overview in the major study areas, and an ability to develop policy alternatives for the Commission's consideration. Components of the revised staff pattern are being assembled during the course of FY 1975. Full staffing will be attained at the beginning of FY 1976, when Commission activities will be greatest, and when the Commission will be developing its final report. Relative to the combined staff of the Commission and of the reimbursable Resource Planning Team at current and last year's levels, the Commission staff, in FY 1976, will be substantially smaller. Because of the changed nature of the Commission's work and the commitment changes in staff positions, average GS grade and salary will slightly increase.

The Commission has requested an identical budget of $708,000 from the State of Alaska. In past years, approximately 30 percent of the State's support has been provided on an "in-kind" basis by assignment of State employees to the resource planning team. With the phasing out of the team in FY 1975, State support in FY 1976 will be entirely in cash as reflected in the Budget Estimate for the Cooperative Funds account.

Personnel Summary

	1974 Actual	1975 Estimate	1976 Estimate
Total number of permanent positions.....	11	15	10
Full-time equivalent of other positions....	2	1	1
Average paid employment.....	13	16	11
Average GS Grade.....	9.94	10.61	11.61
Average GS Salary.....	$16,041	$19,788	$21,234

ITEMIZATION OF ESTIMATE

Salaries and Expenses (Federal Share)

	Actual 1974	Estimate 1975	Estimate 1976	Increase (+) Decrease (-)
Program and Financing:				
Total obligations.....	$612,433	$693,000	$708,000	+ $15,000
Transferred to other Accounts...	81,708	---	---	---
Unobligated balance lapsing.....	259	---	---	---
Appropriation:	$694,400	$693,000	$708,000	+ 15,000
Obligations by Objects:				
11.0 Personnel compensation.....	251,000	320,000	269,000	- 51,000
12.1 Personnel Benefits: Civilian Employees.....	78,000	96,000	87,000	- 9,000
21.0 Travel and Transportation of persons.....	23,000	60,000	70,000	+ 10,000
22.0 Transportation of things...	4,000	5,000	5,000	---
23.0 Rent, Communications, and utilities.....	11,000	60,000	50,000	- 10,000
24.0 Printing and reproduction..	---	15,000	32,000	+ 17,000
25.0 Other Services.....	243,000	119,000	184,000	+ 65,000
26.0 Supplies & Materials.....	3,000	17,000	10,000	- 7,000
31.0 Equipment.....	---	1,000	1,000	---
Total Obligations.....	$613,000	$693,000	$708,000	+ $15,000

Analysis by Activities

FY 1976 Estimate and July 1 - Sept. 30 Period
Salaries and Expenses

Activity	FY 1976 Estimate	Estimate July 1 - Sept. 30, 1976
1. Salaries and Expenses	$708,000	$120,000
Total	$708,000	$120,000

Salaries and Expenses

For necessary expenses of the Joint Federal-State Land Use Planning Commission for Alaska, established by the Act of December 18, 1971 (Public Law 92-203), [$693,000] $708,000: Provided, That this appropriation shall not be available to pay more than one-half of the expenses of the Commission.

For "Salaries and expenses" for the period July 1, 1976, through September 30, 1976, $120,000. (Department of the Interior and Related Agencies Appropriation Act, 1975.)

SALARIES AND EXPENSES

Program and Financing - Transition Period (in thousands of dollars)

Identification code 33-11-0058-0-1-452	July 1 - Sept. 30, 1976 Estimate	19 estimate	19 estimate
Program by Activities:			
Direct Program:			
Salaries and Expenses.....	120		
Total Program costs, Funded.....	120		
10 Total Obligations.....	120		
Budget Authority.....	120		
Budget Authority:			
40 Appropriation.....	120		
Relation of Obligations to Outlays:			
71 Obligations incurred, net.....	120		
72 Obligated balance, start of period	50		
74 Obligated balance, end of period.	-50		
90 Outlays.....	120		

Justification for Transition Period

Salaries and Expenses	$120,000
Salaries and Expenses.....	$120,000

The Commission's final report to the Federal and State Administrations, to Congress and to the Alaska Legislature will be completed in late FY 1976. After issuance of the final report, the Commission and Commission's staff will be presenting and supporting the reports recommendations to these bodies and other interested groups. The transition period estimate provides for this effort.

Cooperative Trust Funds
(State Share)

Section 17 (a) (9) (A) of the Alaska Native Claims Settlement Act, Public Law 92-203, limits the Federal share of the expenses of the Joint Federal-State Land Use Planning Commission for Alaska to 50 percent. The State of Alaska provides for the remaining 50 percent of Commission expenses. In years prior to 1976, a portion of the State's support has been provided in-kind through assignments of State employees. For 1976, the total State contribution is estimated at $708,000, all of which will be provided in cash.

Personnel Summary

	1974 Actual	1975 Estimate	1976 Estimate
Total number of permanent positions	7	4	9
Full-time equivalent of other positions	1	1	2
Average paid employment	8	5	11
Average GS Grade	9.94	10.61	11.61
Average GS Salary	$16,041	$19,788	$21,234

ITEMIZATION OF ESTIMATE
Joint Federal-State Land Use Planning
Commission for Alaska

Cooperative Funds

	Actual 1974	Estimate 1975	Estimate 1976	(+)Increase (-)Decrease
Program and Financing:				
Total Obligations	$496,000	$500,000	$708,000	+ $208,000
Appropriation	550,000	$537,000	$708,000	+ $171,000
Obligation by Objects:				
11.0 Personnel compensation	163,000	103,000	269,000	+ 166,000
12.0 Personnel Benefit: Civilian Employees	51,000	32,000	87,000	+ 55,000
21.0 Travel and Transportation of persons	15,000	56,000	70,000	+ 14,000
22.0 Transportation of things	2,000	5,000	5,000	---
23.0 Rent, Communications, and utilities	75,000	60,000	50,000	- 10,000
24.0 Printing and reproduction	---	15,000	32,000	+ 17,000
25.0 Other Service	151,000	210,000	184,000	- 26,000
26.0 Supplies & Materials	2,000	16,000	10,000	- 6,000
31.0 Equipment	---	3,000	1,000	- 2,000
Total Direct Obligations	459,000	500,000	708,000	+ 208,000
25.0 Other Services	37,000	---	---	
Total Obligations	496,000	500,000	708,000	

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Forest Service

Energy Research and Development Administration

Federal Energy Administration

Federal Metal and Nonmetallic Mine Safety Board of Review

Indian Health Service

Indian Education

Indian Claims Commission

Smithsonian Institution

National Gallery of Art

Woodrow Wilson International Center for Scholars

National Foundation on the Arts and the Humanities

Commission of Fine Arts

Pennsylvania Avenue Development Corporation

National Capital Planning Commission

American Revolution Bicentennial Administration

Franklin Delano Roosevelt Memorial Commission

Joint Federal-State Land Use Planning Commission for Alaska