

ning October 22, 1972, as "National Records Management Week"; to the Committee on the Judiciary.

By Mrs. MINK (for herself, Mr. ABOW-REZK, Mr. HICKS of Washington, and Mr. LEGGETT):

H.J. Res. 1038. Joint resolution to suspend for 80 days the continuation of any strike or lockout arising out of the labor dispute between the Pacific Maritime Association and the International Longshoremen's and Warehousemen's Union; to the Committee on Education and Labor.

By Mr. MINSHALL:

H.J. Res. 1039. Joint resolution proposing an amendment to the Constitution of the United States to insure the right of States to establish and prescribe the powers of their local educational agencies; to the Committee on the Judiciary.

By Mrs. ABZUG:

H. Res. 788. Resolution relating to the authority of certain standing committees of the House of Representatives to meet while it is in session; to the Committee on Rules.

By Mr. ICHORD:

H. Res. 789. Resolution authorizing the expenditure of certain funds for the expenses of the Committee on Internal Security; to the Committee on House Administration.

L. Prouty, which was referred to the Committee on House Administration.

## PRIVATE BILLS AND RESOLUTIONS

Under clause 1 of rule XXII,

Mr. HAMMERSCHMIDT introduced a bill (H.R. 12768) for the relief of U.S. Forgecraft Corp.; to the Committee on the Judiciary.

## PETITIONS, ETC.

Under clause 1 of rule XXII,

182. The SPEAKER presented a petition of the City Council, Spokane, Wash., relative to Federal-State revenue sharing, which was referred to the Committee on Ways and Means.

## MEMORIALS

Under clause 4 of rule XXII,

301. The SPEAKER presented a memorial of the Legislature of the State of Vermont, relative to the death of U.S. Senator Winston

# SENATE—Monday, January 31, 1972

The Senate met at 11 a.m. and was called to order by the President pro tempore (Mr. ELLENDER).

## PRAYER

The Chaplain, the Reverend Edward L. R. Elson, D.D., offered the following prayer:

Almighty God, the source of all power and the giver of all wisdom, we lift our eyes upward to behold Thy holiness, we turn our eyes outward and behold the world's need, we look inward and feel our need of Thee. Qualify us for service by the gift of clean hands and pure hearts and souls receptive to the guidance of Thy spirit. Keep the humblest and the mightiest among us under the shelter of Thy grace that as "one nation under God" we may further the coming of Thy kingdom. Amen.

## THE JOURNAL

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the reading of the Journal of the proceedings of Friday, January 28, 1972, be dispensed with.

The PRESIDENT pro tempore. Without objection, it is so ordered.

## ATTENDANCE OF A SENATOR

Hon. JAMES L. BUCKLEY, a Senator from the State of New York, attended the session of the Senate today.

## WAIVER OF THE CALL OF THE CALENDAR

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the call of the legislative calendar, under rule VIII, be dispensed with.

The PRESIDENT pro tempore. Without objection, it is so ordered.

## THE CALENDAR

Mr. MANSFIELD. Mr. President, without any reference to the Pastore rule of germaneness, I ask unanimous consent that the Senate proceed to the consideration of Calendar No. 568.

The PRESIDENT pro tempore. Without objection, it is so ordered.

## INTEGRATED PEST CONTROL RESEARCH

The Senate proceeded to consider the bill (S. 1794) to authorize pilot field-research programs for the control of agricultural and forest pests by integrated biological-cultural methods which had been reported from the Committee on Agriculture and Forestry with an amendment to strike out all after the enacting clause and insert:

S. 1794

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That for the purposes of this Act—*

(a) The term "integrated control" means a pest management system that, in context of the associated environment and the dynamics of the pest species, utilizes all suitable techniques and methods in as compatible a manner as possible and maintains the pest at levels below those causing economic injury.

(b) The term "pest" means insects, rodents, nematodes, fungi, weeds, and other forms of plant or animal life or viruses, which are determined by the Secretary of Agriculture to cause economic injury to agricultural and forest crops to the extent that suppression is necessary.

SEC. 2. (a) The Secretary of Agriculture is authorized and directed to carry out, through the Agricultural Research Service of the Department of Agriculture, pilot field-research programs for the purpose of (1) developing and testing the suppression of agricultural and forest pests by the employment of integrated control methods, (2) determining the economic and environmental consequences of predicting and modifying agricultural and forest pest occurrences through utilization of integrated control methods, and (3) developing methods of collecting, handling, and interpreting data obtained from such field research.

(b) The Secretary of Agriculture is authorized to reimburse farmers and ranchers for any losses sustained by them as a result of any research authorized under this Act being conducted on their lands, crops, or livestock.

(c) There are hereby authorized to be appropriated to the Secretary of Agriculture to carry out the provisions of this section during the fiscal year ending June 30, 1972, the sum of \$2,000,000, and such sum as may be necessary for each of the five succeeding fiscal years.

SEC. 3. There are hereby authorized to be appropriated to the National Science Foundation for the fiscal year ending June 30, 1972, the sum of \$2,000,000, and such sum as

may be necessary for each of the five succeeding fiscal years for the purpose of expanding its fundamental research on integrated control principles and techniques to suppress agricultural and forest pests.

The amendment was agreed to.

The bill was ordered to be engrossed for a third reading, read the third time, and passed.

The title was amended so as to read: "A bill to authorize pilot field-research programs for the suppression of agricultural and forest pests by integrated control methods."

Mr. MANSFIELD. Mr. President, I ask unanimous consent to have printed in the RECORD an excerpt from the report (No. 92-595), explaining the purposes of the measure.

There being no objection, the excerpt was ordered to be printed in the RECORD, as follows:

## SHORT EXPLANATION

This bill—

(1) directs the Secretary of Agriculture to carry out pilot field research programs in integrated methods of controlling agricultural and forest pests;

(2) authorizes him to reimburse farmers for losses sustained as a result of such research being conducted on their lands, crops, or livestock; and

(3) authorizes expanded research on integrated control by the National Science Foundation.

## HEARINGS

Hearings were conducted on this bill by the Committee's Subcommittee on Agricultural Research and General Legislation on September 30 and October 1, 1971. Witnesses were generally favorable. The hearings have been printed.

## PURPOSE

The purpose of the bill is to develop and encourage the use of a wide variety of pest control measures which will result in protection of the environment, the continued production of high quality foods and other agricultural commodities in abundant quantity, and reduction in the cost of producing such commodities. Such measures would include the use of insect predators, parasites, pathogens, insect sterilization, attractants, hormones, varieties of crops resistant to insect and diseases, crop morphology, chemicals, and various combinations of such techniques for integrated control of pests.

The following abstracts from the testimony of witnesses for the Department of Agriculture appearing at pages 12 through

18 of the hearings will throw further light on the objectives of the bill:

"Mr. EDWINSTER. \* \* \*

"The purpose of the bill is to authorize pilot-field-research programs for the control of agricultural and forest pests by integrated biological control methods.

"The Department of Agriculture is totally committed to the integrated biological control approach to the suppression of pests and diseases of importance to producing the quantity and high quality of food, feed, and fiber in our Nation, as well as for the protection of our environment.

"The American farmer has been active in developing and applying many programs that will protect our environment. For an outstanding example, we have only to look to the soil and water conservation programs. Programs that are supported and led by farmer-oriented associations in concert with the technical agencies of the State and Federal Government. These successful programs came out of the early research findings that provided an array of integrated conservation practices. Our research programs for pest control are geared to provide a similar array of integrated pest control practices. The agricultural sector with the tools at hand can then take similar leadership in applying biological and cultural methods of controlling pests and diseases.

"Dr. KNIPLING. Mr. Chairman and members of the committee, for more than 15 years the Entomology Research Division of the Agricultural Research Service has been orienting its fundamental and applied research efforts to the development of alternative ways to control insects, with particular emphasis on those insects that are responsible for the most extensive use of insecticides. We recognize the great contributions to agriculture, forestry, and health that modern chemical pesticides have made. The need for many of the pesticides will continue for years to come if we are to cope with the thousands of pests that attack crops, forest, livestock, and which affect man's comfort and health. Yet, we also recognize that our goal for the future must be to achieve the same or even a higher degree of efficiency in pest control but by methods that will not adversely affect the quality of our environment.

"In the intensified efforts that have been underway for some years to develop ecologically acceptable methods for insect control, some progress has already been made. The screw-worm, a major pest for livestock, was eliminated by a unique method which utilizes the insect itself as a biological agent for its own destruction. The same technique is now employed to operate a barrier zone to keep screw-worms in Mexico from reinfesting this country. Each week from 100 million to 150 million screw-worm flies are being reared and sterilized by exposure to atomic radiation and then released in a broad band about 200 miles wide along the U.S.-Mexico border region from the Gulf of Mexico to the Pacific Ocean.

"The success of the sterile male method stimulated research efforts to develop the technique for use against other insect pests. As a result, the technique is now used along the California-Mexico border area to control the Mexican fruit fly. Each week several million sterilized Mexican fruit flies are released to prevent the establishment of this dangerous pest of fruit and vegetables. These sterile insect releases have replaced the use of insecticides which were formerly used to prevent the establishment of this pest in southern California fruit and vegetable growing areas. That year the USDA and the California Department of Agriculture jointly financed a program to rear, sterilize, and release more than 100 million pink bollworm moths in the San Joaquin Valley of California in an effort to prevent the spread of this dangerous and costly pest of cotton into

this important cotton-growing region. When the pink bollworm spread from Texas to cotton-growing areas in Arizona, New Mexico, and the Imperial Valley in California, it immediately posed a serious problem to growers, because chemical insecticides now provide the only effective way to control the pest under conditions that cotton is now grown in these areas. It is the hope that the sterile pink bollworm release technique will continue to keep the pest from getting a foothold in the San Joaquin Valley and thus obviate the need for an intensive use of insecticides in this large cotton-growing area in California.

"We recognize that the use of sterile or genetically altered males for their own destruction will not solve all or even most of our major insect pest problems. Yet, our research has advanced to the stage that we see excellent possibilities of developing the techniques to help solve or alleviate a number of other major insect problems. Research on the insect sterilization method has advanced to the point that this technique shows promise when integrated with other methods for the control of low populations of such major pest species as the boll weevil, codling moth, Mediterranean fruit fly, oriental fruit fly, melon fly, Caribbean fruit fly, corn earworm, tobacco budworm, tobacco hornworm, gypsy moth, horn fly of cattle, and other pest species. However, we will not know if or how the technique can be employed effectively against these and other species until suitable pilot field tests are conducted against isolated populations.

"There is a big jump from laboratory and small pilot type of research to practical operational scale field testing. As an example of the type of pilot testing research that needs to be undertaken to develop some of the new techniques for insect suppression, I would like to cite a test program on the boll weevil now under way, which is jointly sponsored and financed by the Agricultural Research Service, the Cooperative State Research Service, the States of Mississippi, Alabama, and Louisiana, and the cotton industry. A pilot test is now underway to determine if insecticides, attractants, and sterile males employed in an integrated program can be used to eliminate isolated populations of the cotton boll weevil, one of the Nation's most damaging pests. The large-scale field test will cost \$2 million each year for 2 years. However, if the procedures used prove successful, we may have the means of eliminating a pest that alone costs cotton farmers about \$75 million per year on the average to control the boll weevil with chemical insecticides.

"The genetic approach to insect control is just one of several approaches that offer more acceptable solutions to insect pest problems. Insects have many natural enemies. One of the most important goals of Federal and State scientists is to use insecticides more judiciously so as to obtain maximum help from the biological agents that already occur naturally in our agricultural and our forested areas. We know through many years of experience and long before insecticides were used intensively, that these natural agents, as valuable as they are, do not provide adequate control for many pests. Therefore, USDA is investigating a number of parasites and predators with a view to rearing certain species by the hundreds of millions, or even billions, so that enough of them can be released on a program basis into crop environments to assure effective controls of some of our major pests. One of our scientists located at Texas A. & M. University has shown that the release of large numbers of eggs or larvae of a predator called chrysopids on cotton will effectively control cotton bollworms.

"To explore fully this biological method, we need to develop low-cost methods of rearing the predator in large numbers and determine its usefulness in well-planned

pilot field tests. A tiny natural biological agent called *Trichogramma* is known to be an effective parasite for suppressing a wide variety of crop pests. However, like many natural enemies, this parasite seldom produces a high degree of control until the pest has already exceeded the economic damage level. We are taking a new look at this parasite and there is good reason to believe that the release of from 50,000 to 100,000 of these tiny parasites per acre each week on crops attacked by such insects as the bollworm, tobacco budworm, sugarcane borer, cabbage looper, and imported cabbage worm can lead to the control of pests. Again, however, we will not know how effective and how practical this biological agent can be as alternatives to chemicals without conducting suitable pilot field tests on a community size scale. Similar exploratory studies are underway on parasites of such important crop pests as the greenbug on sorghum, the pea aphid on peas, and the green peach aphid on potatoes. Parasites that attack aphids often control aphid populations but too late to prevent damage to the crops. This is typical of many parasites, thus our goal is to develop ways to rear potentially useful parasites on a large scale and conduct pilot field tests on a sufficient size scale to determine their value as a biological control procedure to replace chemical pesticides.

"Insects are also affected by a number of insect diseases. Thus, we have another type of biological agent to exploit. Insect viruses are known that seriously affect such pests as the cabbage looper, cotton bollworm, tobacco budworm and the gypsy moth. Several strains of the bacterium *Bacillus thuringiensis* are under investigation, which are more virulent than the strain now sold for the control of certain vegetable pests. Fortunately, most insect diseases are highly selective against a given pest or a closely related pest complex; therefore, the use of insect pathogens offers a way to control some of our important pests without adversely affecting other natural biological agents or fish and wildlife. We believe that such pathogens can eventually provide effective ways to control a number of important pests; but again, pilot tests are needed to determine how effective some of the insect viruses and the different strains of *Bacillus thuringiensis* are for the control of such pests as bollworms on cotton, the cabbage looper, gypsy moth, and other species.

"Another approach to insect control involves the use of attractants. There is a special interest in the use of insect sex attractants for insect detection and control. In a strict sense the use of sex attractants would not involve a biological method because the attractants are chemicals. But they are chemicals of natural origin and are highly selective in action, generally only against the insects that produce them naturally. Chemists with Federal and State research institutions have made remarkable progress in recent years in the isolation, identification, and synthesis of these highly active chemicals. Sex attractants have been synthesized for such important pests as the gypsy moth, cabbage looper, boll weevil, codling moth, redbanded leafroller, European corn borer, and pink bollworm. Other major insects are known to produce powerful sex attractants and chemists are now trying to isolate, identify, and synthesize the compounds. They include such pests as the peach tree borer, Japanese beetle, tobacco hornworm, tobacco budworm, and sugarcane borer. We are hopeful that insect sex attractants will eventually offer a way to control a number of important pests without causing any harm to other organisms in the environment. However, we are finding it to be difficult and costly to conduct the type of tests that are needed to determine how effective insect attractants can be for insect control. Most of the insects are strong fliers and it is not possible to demonstrate effective control by the use of



attractants unless the test area is sufficiently large to minimize the influence of previously mated insects immigrating into the experimental area.

"One of the most desirable ways to control insects is to develop crop varieties that tolerate or resist insect attacks. This approach to insect control is by no means new, but there has been a renewed interest in developing this method for more insect problems. Good control is now obtained by growing wheat resistant to the Hessian fly; growing alfalfa that is resistant to the spotted alfalfa aphid and the pea aphid, and corn that is resistant to the European corn borer. Research has been expanded on this approach in recent years. Promising lines of cotton are known that possess a high degree of resistance to the boll weevil, the cotton bollworm, tobacco budworm, and the flea hopper. It requires long and painstaking research by plant breeders and entomologists to expect to find and develop crop varieties that are resistant or tolerant to insect attack. But even after promising germ plasm is found, it becomes necessary to grow resistant lines in special field tests and on a sufficient size scale to fully evaluate their agronomic qualities and to measure their effectiveness against the pest. One of the special problems is to be sure that such varieties, while resistant to one pest, will not be more susceptible to some other pest or diseases. Small scale tests do not always provide the information needed to fully evaluate the performance of new varieties. Mr. Chairman, I would just like to add the eventual goal is to determine how we can integrate these alternative methods to achieve the highest degree of control possible that will be sound from an ecological standpoint."

#### DEPARTMENTAL VIEWS

The Department of Agriculture and the National Science Foundation strongly support the objectives of the bill, but advise that its enactment is unnecessary because adequate authority already exists. The Committee feels that the importance to the environment and the national welfare of improved methods of pest control is such that the bill should be passed, and the Secretary of Agriculture should be given the clear and specific direction provided by the bill to carry out these pilot research programs.

On January 14, 1972, the Secretary of Agriculture announced a program along the lines provided for by the bill, as shown by the following release:

#### "NEW PEST MANAGEMENT PROGRAM TO HELP FARMERS ANNOUNCED"

"WASHINGTON, January 14.—Secretary of Agriculture Earl L. Butz today announced a broad new pest management action program and an expanded research program to help farmers control pests more economically and effectively. At the same time it will reduce the amount of DDT and other chemical pesticides currently being used.

"The new program provides for a combination of chemical, biological and cultural pest control techniques as well as long-range pest control research. This should enable farmers to reduce pesticide use in 1972 and later years.

"The program will be conducted jointly by the U.S. Department of Agriculture, the National Science Foundation, and the Environmental Protection Agency, in cooperation with State Departments of Agriculture, and State Agricultural Experiment Stations and Extension Services.

"We are well aware of the need to continually examine our methods of pest control and make modifications when possible. This program will help farmers develop integrated control techniques for protecting crops and livestock from insects and diseases while reducing farmer's production costs and

protecting the Nation's consumers from increased costs for food and clothing," Secretary Butz said.

"The program will have other benefits. It will help protect the environment from the effects of currently used pesticides, as well as protecting farmers, farm workers and their families, and the public from the possibly harmful effects of more toxic materials that might be used as substitutes for DDT or other chemicals."

"The initial pest management program effort will be directed toward cotton because of the amount of chemical pesticides currently required to control cotton pests, the mounting ineffectiveness of some of these insecticidal chemicals and their side effects on beneficial insects and the environment. Later the program will be broadened to include insect pests affecting other agricultural crops.

"The accelerated pest management program generally calls for assessment of pest population levels by organized scouting programs, selective use of pesticides, placing greater reliance on beneficial insects, utilizing special cultural practices, and in the case of the cotton boll weevil, applying insecticides late in the growing season to control the population of the diapausing weevils—a period in the fall when the weevils' development is interrupted.

"Cotton is grown on about 11 million acres in 19 States, and is subject to attack by more than 130 species of insects or spider mites. The boll weevil alone infests over 8 million acres in the cotton belt, with annual losses exceeding \$200 million. Currently, cotton producers must make 10 to 20 pesticide applications annually at a cost of \$15 to \$35 per acre to control these pests.

"Under the new program, on-the-farm pest management efforts which have previously been field-tested in a number of cotton producing areas will be expanded. A total of \$2,250,000 in existing funds has been allocated by the USDA to this phase of the program in 1972. It is expected that each of the pest management activities will be financially self-supporting at the farm level three years after initiation of the program. This would allow reallocation of the funds to pest management programs for other crops.

"In addition to the on-farm phase of the program, a total of \$3.5 million will be allocated in 1972 to expand the research needed to field test new pest control and detection techniques, and to develop the tools necessary for initiating still other methods of control. Of these funds, \$1.7 million will be provided by USDA, \$900,000 by the Environmental Protection Agency, and \$900,000 by the National Science Foundation."

#### COMMITTEE MEETINGS DURING SENATE SESSION

Mr. MANSFIELD. Mr. President, I ask unanimous consent that all committees may be authorized to meet during the session of the Senate today.

The PRESIDENT pro tempore. Without objection, it is so ordered.

#### PRESIDENT NIXON'S PEACE PLAN

Mr. MANSFIELD. Mr. President, over the weekend, a commentary by TRB, which was published in the Baltimore Sun on January 29, 1972, and a lead editorial published in the New York Times on Sunday, January 30, 1972, contained, I think, some pertinent comments relative to the President's proposals seeking to bring an end to the war in Vietnam.

I am impressed by both article and

editorial, as I was impressed by the concluding remarks made by Dr. Kissinger in his on-the-record appearance last week with the press.

I should like to quote from Dr. Kissinger at this time. He said:

The new proposal was accompanied, in the speech, first by a renewed offer to discuss the military issues alone, . . .

I stress that word "alone" because, as I have indicated, I believe that the military aspects should be separated, but I think the RECORD should be clear.

Dr. Kissinger continues:

Just in case the North Vietnamese have changed their minds on this, which we think is unlikely, but we just want to make sure that this was true; and secondly, we have offered, on October 11th, and we will repeat that offer tomorrow in Paris, a staged approach to the implementation of this agreement by which the withdrawal and exchanges could begin while the other details were still in the process of negotiation, as long as they were completed within the six-month period.

That is the end of the statement by Dr. Kissinger.

Mr. President, I think that there is a good deal of merit in both commentaries by TRB and the New York Times editorial, and I ask unanimous consent that they both be printed in the RECORD.

There being no objection, the article and editorial were ordered to be printed in the RECORD, as follows:

[From the Baltimore Sun, Jan. 29, 1972]

#### U.S. PUBLIC SEEKS PULLOUT WITH FEWEST SCARS POSSIBLE

WASHINGTON.—We are prepared to believe that President Nixon wants to get out of Vietnam. He feels that he has made a generous offer in the terms of the secret negotiations with Hanoi which last week he revealed have been going on since 1969. The fact that at long last almost in despair he disclosed these negotiations indicates that there is small chance of their being accepted so long as Gen. Nguyen Van Thieu remains president. In fact we now know what we are fighting for; it is to preserve General Thieu, though he must run the seemingly small risk of a new election.

The difficulty is that North Vietnam, we imagine, has not the slightest confidence in the proposed democratic process of holding an election, despite all the bait that Mr. Nixon has spread around—General Thieu's resignation one month ahead of time, participation by the Viet Cong and impartial supervision. The Yale political scientist, Robert Dahl, once observed that of 150 nominally independent countries in the world today the people in only about two dozen regularly exercise the right to free elections. We cannot force the system on other nations, he argues. Certainly South Vietnam hardly appreciates it in the farcical affair where General Thieu ran by himself; an instance of "one man, one vote" if we ever saw it.

Furthermore, the North Vietnamese probably believe that they are winning; that time is on their side; that the Americans are interlopers. They have the perverse notion that it is their country and that we have no business being there.

Yet it would be wrong, we think, for Hanoi to misinterpret the Nixon speech. Some of our friends here hate the war so much that they want the lesson against imperialism driven home by the abject defeat of America. This is a luscious morsel of I-told-you-so and revenge to roll over the tongue, but we cannot buy it. We guess that

Mr. Nixon's earnest, injured broadcast is going to mute some critics, and produce a substantial feeling of sympathy—for a time at least. We think the leaders of North Vietnam should appreciate this. They will make a mistake not to explore this possible opening or to ignore the fact that many Americans who loathe the war are not prepared to see their country humiliated. For Americans it is a question now, we think, of getting out with the fewest scars possible so that we can get back to our own agonizing internal problems.

It is time to take some thought about what the war has done to us. Not merely all those lives lost and treasury spent—they are the brutal obvious costs. Some penalties have been less glaring—Mr. Nixon's \$40 billion deficit for example, announced last week.

And what caused the deficits and dollar devaluation? Primarily it was the war; inflation caused by the war, with inflation started by Mr. Johnson's failure to pay for the war with adequate taxes.

In perspective the war is the longest one America has ever fought and one of the most important in some of its consequences. It forced Mr. Johnson out of office, and probably defeated Hubert Humphrey, and has bedeviled Mr. Nixon for three years. More important are subtler developments, widespread alienation of youth; a greater than normal distrust of politicians, a loss of faith in the very instruments of government, a malaise, a sourness, a feeling that the nation is in great trouble, a questioning of democracy itself. A year ago a Gallup Poll showed 73 per cent of the public wanted troops out; there is no greater danger for the spirit than to go on fighting a war which the people think is wrong.

There is also the erosion of congressional power. This has been going on for half a century but Vietnam sped it up, it underlined the humiliating downgrading of the legislature; Congress was gulled into whooping through the Tonkin Gulf resolution; it was not consulted about the Cambodia invasion; it only learns now that for 30 months secret White House negotiations with the enemy have been going on. What does Congress count? It debates ineffective resolutions about ending the war by fixing a "date certain." Its job is to vote funds; not interfere.

The war brought notable statements, too: such windy comments as Mr. Johnson's in 1965, "No other people in no other time has had so great an opportunity to work and risk for the freedom of all mankind." And Mr. Humphrey in October, 1967, "The threat to world peace is militant, aggressive Asian communism, with its headquarters in Peking, China."

American global evangelism is now at a discount but it was shared by the press.

The war brought from Mr. Nixon that tocsin announcement on the Cambodian "incursion": "Tonight, American and South Vietnamese units will attack the headquarters of the entire Communist military operation in South Vietnam . . ." We never did find it.

Here is London correspondent Peregrine Worsthorne a year ago reporting from personal interviews with the President, "No wonder a mood of infectious optimism pervades the White House today . . . poised on the brink of succeeding in its long struggle." And here is columnist Joseph Alsop, giving the good news, datelined Saigon, a year ago: "Hanoi's problems now appear so horrible that they are almost certainly beyond solution . . ."

Well, well. We can tell our children about it. The myth of innocence and invincibility. Disruption of the 1968 Chicago convention. Repeated examples of civil disobedience. Catch words like Tiger Cages, My Lai, Lieutenant Calley, Kent State, Protective Reaction, Moratorium March, Body Count. Yes,

as some cynic said, "Vietnam has given war a bad name."

[From the New York Times, Jan. 30 1972]

#### THE PEACE PLAN

President Nixon's peace plan, as revealed to the world in general and to the American electorate in particular last Tuesday night in his own special brand of TV spectacular, does represent a significant advance of the American position in the complex negotiating effort to bring an end to the Vietnam war. While Mr. Nixon's dramatic announcement may indeed have been timed to soften up American and world opinion for a massive renewal of aerial bombing in response to the anticipated major Tet offensive on the part of Hanoi, the fact remains that the proposals are substantial enough, and are flexible enough, to warrant more serious exploration from the naturally suspicious enemy than has yet been publicly evidenced.

Mr. Nixon's plan is certainly not foolproof, and it is perfectly clear why the other side has not rushed to accept it. He has not abandoned the Thieu regime, as not only Hanoi but also many of Mr. Nixon's most earnest domestic critics insist must be done before peace can be expected in Indochina; but what he has proposed is a series of steps that could lead to a change of government in South Vietnam through a process in which all shades of opinion—Communist as well as anti-Communist—would have a part, while the fighting came to an end.

But on the political arrangements, the cease-fire, the withdrawal in exchange for prisoners of war, and other issues as well, the Nixon plan clearly leaves room for negotiation. Though the steady withdrawal of American ground troops and the continued failure of Vietnamization place the United States in an increasingly difficult bargaining position, it would be too much to expect Mr. Nixon to come forward with a plan immediately acceptable to Hanoi. What can be expected and now has at least been partially accomplished is a plan that should invite serious response from Hanoi in a forward-moving negotiation.

In fact, the secret Kissinger meetings last year in Paris with Le Duc Tho, member of the North Vietnam Politburo, did much to advance these negotiations by undertaking detailed discussions on a political settlement in South Vietnam, something that Washington had not been willing to talk about with Hanoi alone in the past.

This does not mean that the Administration has given up its hope that the Communists ultimately will accept, or at least negotiate, the detailed terms of a political solution with the Saigon Government. Nor have the Communists backed away from their refusal to talk to the Saigon Government—even to negotiate its replacement. But, for the first time, there has been a serious exchange about the central issue of the conflict: How power is to be exercised in South Vietnam when the war ends.

Ostensibly, Washington and Hanoi are poles apart on this issue. But some progress has been made toward closing the gap. The critical divergence has to do with how South Vietnam shall be governed in the transitional period between an agreement—which, in the view of both sides, must include a cease-fire—and the holding of elections.

The Communists propose an interim coalition government made up one-third of their representatives, one-third of representatives of a new Saigon Government without President Thieu and one-third of other factions. But they insist on a veto over the participants they do not name. Essentially, they favor elections that confirm an outcome known in advance and achieved by negotiations. The United States has been proposing a process meaningful to Americans but less so to Vietnamese—elections leading to an unknown outcome.

In the secret conversations, the United States for the first time evidently discussed with Hanoi, without commitment, the composition of the interim coalition government the Communists were proposing. It was made clear to Hanoi that the representative "independent" body the United States and Saigon want to run the elections could have powers approaching that of an interim coalition government. Washington evidently is prepared to have equal representation on the commission of the Vietcong, the Saigon Government and third groups chosen jointly by the two chief adversaries.

Hanoi's answer is still awaited on this critical point. Other points of difference between Washington and Hanoi appear to be negotiable, including the terms of American withdrawal and prisoner release.

For the first time in four years of effort the way seems open for serious negotiation of a peace settlement—if both sides are really prepared to accept a political compromise rather than a continued effort to achieve a military victory.

#### WEST COAST DOCK STRIKE

Mr. SCOTT. Mr. President, it is high time for the Senate to live up to its responsibilities and deal with the west coast dock strike. Continuance of this strike forces up food prices and results in hardship on consumers.

Action by Congress might serve to save face on the part of both labor and management. At least we should try some legislation. The committee should be working on it and, if necessary, we could surely work out some way of getting action on the floor of the Senate in between this and our other bills.

Thus, I think it is desirable that the President's urgent request be considered in the same context of urgency. It is really not doing the cause of industrial peace any good by failing to act or to consider this matter.

#### THE "SURRENDER NOW" TECHNIQUE

Mr. SCOTT. Mr. President, I note with interest that many columnists are veering now toward a "surrender now" technique. These are our U.S. boys, our unconditional surrender boys.

Their case is weak. Their cause is bad. They serve no American interest and they should be identified accordingly.

#### TRANSACTION OF ROUTINE MORNING BUSINESS

The PRESIDENT pro tempore. Under the previous order, there will now be a period for the transaction of routine morning business, not to exceed 30 minutes, with statements therein limited to 3 minutes.

#### SENATOR COOPER OF KENTUCKY—A BLUE-RIBBON SENATOR

Mr. BYRD of Virginia. Mr. President, the Norfolk Virginian-Pilot of January 26, 1972, has published an excellent editorial headlined "Blue-Ribbon Senator." It deals with the announcement by JOHN SHERMAN COOPER, of Kentucky, that he will not be a candidate for reelection.

The editorial ably reviews Senator



COOPER's career and his accomplishments and ends with this sentence:

He has been a blue-ribbon Senator for 20 years.

Most certainly, Mr. President, JOHN SHERMAN COOPER, of Kentucky, has been a blue-ribbon Senator for 20 years.

As an independent Democrat, I have no hesitancy in saying that I feel Senator COOPER's pending retirement from the Senate will be a great loss to the Senate. As the senior Republican Senator from Kentucky he will be not only greatly missed by his colleagues, but his abilities will also be greatly missed by the Senate.

I ask unanimous consent to have the editorial printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

#### BLUE-RIBBON SENATOR

Senator John Sherman Cooper (R-Ky.) made it official the other day: he isn't going to run for reelection this year.

Mr. Cooper, who was 70 last summer, is one of the most respected men on Capitol Hill and will be missed in the Senate.

And it won't be the first time that he's been missed in the Senate. Few men have had as much trouble staying there, and few have been as persistent in returning there, as Mr. Cooper, a Republican in what used to be a Democratic state.

He was first elected to the Senate in 1946, to fill the unexpired term of Albert B. (Happy) Chandler, who resigned to become Baseball Commissioner. He was defeated in 1948 by Democrat Virgil Chapman. He was returned in 1952 for the balance of the Chapman term after Mr. Chapman's death. He was defeated in 1954 by Alben W. Barkley; Mr. Cooper was much admired even then, but Alben Barkley, the former "Veep," was unbeatable. After Mr. Barkley's death, Mr. Cooper once more was re-elected to fill the unexpired term, and re-elected in his own right thereafter in 1960 and 1966.

During the periods when he was out of the Senate, he served as delegate to the United Nations (1949-51) and as Ambassador to India (1955-56).

Mr. Cooper was never a partisan Republican, and often was found voting with the Democrats when he disagreed with his own party. Essentially, he was an internationalist as a Senator. His chief interest was foreign affairs and he long served on the Foreign Relations Committee, where he has been an active foe of the fighting in Indochina in recent years. His name has been on amendments to limit the use of American troops there. But despite his efforts opposing the Vietnam War, Mr. Cooper has remained on good terms with the White House.

But then he always was highly respected. In 1963, when Lyndon Johnson wanted a blue-ribbon commission to investigate the assassination of John F. Kennedy, he chose John Sherman Cooper and Richard Russell from the Senate. That is the measure of the man. He has been a blue-ribbon Senator for 20 years.

#### QUORUM CALL

Mr. MONDALE. Mr. President, I observe the absence of a quorum.

The PRESIDENT pro tempore. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. GRIFFIN. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDENT pro tempore. Without objection, it is so ordered. The Senator from Michigan is recognized for 3 minutes.

#### STOP THE KILLING

Mr. GRIFFIN. Mr. President, at the White House the other night, a young woman who had been hired as a substitute to perform with the Ray Conniff Singers, suddenly pulled out a cloth sign and held it up. The sign read: "Stop the killing." Needless to say the incident disrupted the program at the White House and focused a great deal of news media attention on the woman and her message.

I rather suspect that a number of President Nixon's critics read the news about this incident with some degree of amusement; perhaps, with some satisfaction that the incident could have happened and did happen. I suspect that many of the President's critics found themselves identifying with the young woman and her message.

As I read the news story, I could not help recalling some of the criticism that was voiced following the President's historic address to the Nation last Tuesday night, when he revealed for the first time the details of some of the Vietnam negotiations that have taken place in secret.

I recall that a number of those who criticized the President following his address—or who found fault with his peace offer—seized upon the fact that he proposed a cease-fire in connection with the offer of withdrawal and an exchange of prisoners.

The President proposed, in other words, that both sides in the war "stop the killing."

It seems incredible but some of those identifying with and silently applauding the young woman who held up the sign are the same people who berate President Nixon for his proposal that both sides stop the killing.

Apparently, those people are suggesting or implying that only one side should stop the killing. But, of course, that would not stop the killing.

It should be obvious to all except any who insist upon abject surrender that President Nixon has been working very diligently to achieve exactly what the young woman seeks with her sign: "Stop the killing."

Mr. President, without intending to refer to any particular critic, I think a column entitled "A Sick Reaction to Nixon," written by William Raspberry, and published in the Washington Post this morning, is very interesting. Mr. Raspberry focuses attention upon a troubling position taken by some with respect to President Nixon's peace proposal. Columnist Raspberry refers to the views of some who seem to take the position that America does not deserve an honorable exit from the Vietnam war and must not be permitted to have one.

He goes on to say:

Nor is it a new feeling. Its most blatant manifestation came in the chants of "Ho, Ho, Ho Chi Minh, NLF is gonna win" that used to mark the big peace demonstrations.

But it also showed up in some of the reac-

tions to such military initiatives as the Cambodian and Laotian "incursions," not merely that the initiative couldn't work for this or that military reason, nor even that the initiative amounted to an immoral widening of the war.

Those reactions were there of course. But also there was the feeling—the fear—that these gross actions might work, and since their success would be vindication for immorality, they must be opposed.

At another point, Mr. Raspberry, a very perceptive columnist says:

But you can treat sick people who insist on punishing themselves. A nation cannot afford to indulge in that sort of self instruction.

At another point he writes:

But it is sick to work at delivering your own comeuppance, and that is what some of those who oppose the war and Richard Nixon's handling of it are proposing.

Mr. President, I ask unanimous consent that the full text of Mr. Raspberry's column be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

#### A SICK REACTION TO NIXON

(By William Raspberry)

Two of the three primary reactions to the President's recent revelation of his secret Vietnam negotiations are fairly easy to talk about. They are more or less clearcut and have more or less articulate spokesmen.

First is the reaction of triumph (or chagrin, depending on your point of view) that for the past several months Mr. Nixon was doing precisely what his most respected critics were accusing him of refusing to do: Offering American withdrawal—even by a "certain date"—in exchange for the return of American POWs.

The President's announcement embarrassed those (particularly the Democratic presidential hopefuls among them) who had been demanding just that sort of proposition.

It vindicated those whose faith was that the President really did want to extricate his country from the war and was sparing no effort to do so. In either case, it must be counted a political plus for Mr. Nixon for the time being, although it may blow up in his face between now and November.

The second reaction is that the President's eight-point proposal, whether sincerely offered or not, cannot work—for the simple reason that Hanoi can gain more heavily by not agreeing to anything.

America clearly is getting out of Vietnam without the benefit of negotiation, the argument goes. In light of that irrevocable trend, Hanoi could only lose by entering into serious negotiation. The smart thing from Hanoi's point of view would be to avoid anything drastic—either at the bargaining table or on the battlefield—and simply permit the continuing withdrawal of the American forces.

The first two reactions are essentially practical, and have to do with whether this plan or that can work.

There is a third, more troubling position that is difficult to document because it has no respected spokesman. It is that America does not deserve a graceful exit from the war and must not be permitted to have one.

The American involvement in Vietnam was immoral from the very beginning, the feeling seems to be, and it is immoral for immorality to go unpunished.

It is the same reaction some of us have to "liberal" talk about prison reform or rehabilitation of criminals. It is the same feeling some of us would have had if Hitler had been able to negotiate an honorable end to World War II.

Someone (maybe it was Sam Smith of the

D.C. Gazette) once said that the notion of America getting out of Vietnam with honor is like a prostitute getting out of her profession with her virginity intact.

Nor is it a new feeling. Its most blatant manifestation came in the chants of "Ho, Ho, Ho Chi Minh, NLF is gonna win" that used to mark the big peace demonstrations.

But it also showed up in some of the reactions to such military initiatives as the Cambodian and Laotian "incursions": not merely that the initiative couldn't work for this or that military reason, nor even that the initiative amounted to an immoral widening of the war.

Those reactions were there of course. But also there was the feeling—the fear—that these gross actions might work, and since their success would be vindication for immorality, they must be opposed.

I suppose it is the psychological equivalent of those sick people who keep finding new ways to fail because they subconsciously feel that they don't deserve success.

But you can treat sick people who insist on punishing themselves. A nation cannot afford to indulge in that sort of self-destruction.

I don't argue with those who say the war was—is—wrong, nor even with those who say a proper comeuppance for our folly might be a good thing.

But it is sick to work at delivering your own comeuppance, and that is what some of those who oppose the war and Richard Nixon's handling of it are proposing.

Extrication from the war—even without honor—is going to be difficult enough under any circumstance. The moralistic posturing of self-righteous critics won't make it any easier.

#### ELEVENTH WINTER OLYMPIC GAMES

Mr. ALLOTT. Mr. President, I submit a resolution and ask for its immediate consideration.

The PRESIDENT pro tempore. The resolution will be stated.

The legislative clerk read as follows:

S. RES. 246

Whereas the Eleventh Winter Olympic Games commence on February 3, 1972, in Sapporo, Japan, and

Whereas, the Twelfth Winter Olympic Games have been awarded to Denver, Colorado, coinciding with our Nation's 200th Anniversary in 1976; therefore, be it

Resolved, That the Senate extends its good wishes to the citizens of Japan and the participants of the Eleventh Winter Olympic Games, and be it further

Resolved, That the Senate affirms its support for the continued designation of Denver as the host city for the twelfth Winter Games to be held in 1976.

The PRESIDENT pro tempore. The question is on agreeing to the resolution.

The resolution (S. Res. 246) was considered and agreed to.

Mr. MANSFIELD. Mr. President, I suggest the absence of a quorum.

The PRESIDENT pro tempore. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDENT pro tempore. Without objection, it is so ordered.

#### COMMUNICATIONS FROM EXECUTIVE DEPARTMENTS, ETC.

The PRESIDENT pro tempore laid before the Senate the following communi-

cation and letters, which were referred as indicated:

#### DUTIES ON CERTAIN MARBLE AND TRAVERTINE

A communication from the President of the United States, relating to tariff on finished structural marble and travertine; referred to the Committee on Finance, and ordered to be printed in the RECORD, as follows:

THE WHITE HOUSE,  
Washington, January 28, 1972.

Hon. SPIRO T. AGNEW,  
President of the Senate,  
Washington, D.C.

DEAR MR. PRESIDENT: On September 13, 1971 the Tariff Commission reported to me, following its investigation conducted under Section 301(b) of the Trade Expansion Act of 1962 (TEA), that its members were equally divided, 2-2, as to whether marble, travertine, and articles of marble suitable for use as monumental, paving or building stone are, as a result in major part of concessions granted thereon under trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause, serious injury to the domestic industry producing like or similar products. The imports in question are all classified under items 514.65, 514.81 and 515.24 of the Tariff Schedules of the United States. The rates of duties on these items are 3.5%, 10.5% and 10.5% respectively.

After careful consideration, I have decided, under authority provided in Section 330(d) of the Tariff Act of 1930, as amended, to adopt as the finding of the Tariff Commission, the finding that the domestic industry is threatened with serious injury. Also, I have provided that the firms and the workers of the domestic industry may request the Secretary of Commerce and the Secretary of Labor, respectively, for certifications of eligibility to apply for adjustment assistance, as recommended by the two Commissioners who found a threat of injury.

It is my view that, in addition to adjustment assistance, the costs of the domestic industry could be reduced and its ability to compete more successfully against imports could be enhanced by eliminating certain of the customs duties the industry now pays on blocks and semifinished structural products of marble and travertine imported for fabrication by U.S. firms and workers. After obtaining further advice from the Tariff Commission, I intend to send to the Congress a legislative proposal for the elimination of such duties as a means of strengthening the domestic industry and safeguarding the jobs of its employees.

Although the petitioners for escape clause relief in this case have requested tariff increases on finished structural marble and travertine, I have decided not to proclaim the increase of duties found and reported by the Tariff Commission, and, therefore, pursuant to Section 351(a) (2) of the Trade Expansion Act, I am submitting this report to the House of Representatives and to the Senate stating why I am not proclaiming such increase in duties.

The marble and travertine covered in the Commission's investigation are building materials of a luxury and/or aesthetic character. They are more durable than cheaper competitive materials. Many factors in addition to price determine whether domestic or imported marble and travertine will be used in a particular building. The most important element usually is the personal preference of a building owner and/or his architect's specifications.

It is difficult to determine whether imports of finished structural marble and travertine have increased in recent years. Based on available data, the only conclusion that can be drawn is that on a quantity basis imports of finished structural marble and travertine have been increasing but apparently only slightly.

Testimony before the Tariff Commission

and information in the Commission's report makes it fairly clear that increasing rates to the statutory level or to 50 per cent above the statutory level, as proposed by the two Commissioners who found a threat of injury, generally would not raise the prices of imported structural marble and travertine to the level of prices offered by domestic producers. Such tariff increases would bring imported prices closer to domestic prices, but the price differential together with other demand factors would generally continue to dictate the source of supply.

Raising tariffs on semifinished marble and travertine as proposed by two of the Commissioners would place the estimated 300 independent fabricators in a very difficult position. Their costs for imported stock would be raised. Since their ability to bid on building projects would be severely limited, it appears possible that increasing tariffs would cause the loss of more jobs among independent fabricators than would be created among the petitioning domestic quarrier-fabricators.

In addition, raising tariffs on finished structural marble and travertine would result in an increase in construction costs in those buildings using marble and travertine. Such increased costs might discourage the use of marble and travertine and could result in a decline in the limited demand for those materials.

Though the marble and travertine industry has been and is experiencing difficulties which may be due in part to import competition, it is difficult to justify increases in tariff protection as a remedy since the maximum possible increase in tariffs will not appreciably affect the ability of the domestic industry to compete with imports.

Sincerely,

RICHARD NIXON.

#### PROPOSED TRANSFER OF SURPLUS BOAT

A letter from the Assistant Secretary of the Navy, reporting, pursuant to law, on the proposed transfer of surplus T-boat, hull No. T-513, to the State of Illinois; to the Committee on Armed Services.

#### PROPOSED AUTHORIZATION OF APPROPRIATIONS RELATING TO THE COAST GUARD

A letter from the Secretary of Transportation, transmitting a draft of proposed legislation to authorize appropriations for the procurement of vessels and aircraft and construction of shore and offshore establishments, and to authorize the average annual active duty personnel strength for the Coast Guard (with an accompanying paper); to the Committee on Commerce.

#### REPORT ON MEDICARE PROGRAM

A letter from the Secretary of Health, Education, and Welfare, transmitting, pursuant to law, a report on the medicare program, for the fiscal year 1971 (with an accompanying report); to the Committee on Finance.

#### REPORT OF U.S. INFORMATION AGENCY

A letter from the Director, U.S. Information Agency, transmitting, pursuant to law, a report of that Agency, for the 6-month period ended June 30, 1971 (with an accompanying report); to the Committee on Foreign Relations.

#### REPORTS OF COMPTROLLER GENERAL

A letter from the Comptroller General of the United States, transmitting, pursuant to law, a report entitled "Examination of Financial Statements of the National Flood Insurance Program Fiscal Year 1970," Federal Insurance Administration, Department of Housing and Urban Development, dated January 28, 1972 (with an accompanying report); to the Committee on Government Operations.

A letter from the Comptroller General of the United States, transmitting, pursuant to law, a report entitled "Ways to Increase U.S. Exports Under the Trade Opportunities Program," Department of Commerce, Department of State, dated January 28, 1972 (with



an accompanying report); to the Committee on Government Operations.

#### REPORT RELATING TO FAIR LABOR STANDARDS

A letter from the Secretary of Labor, transmitting, pursuant to law, a report on fair labor standards in employments in and affecting interstate commerce, dated January 1972 (with an accompanying report); to the Committee on Labor and Public Welfare.

#### REPORT RELATING TO ACTIVITIES IN CONNECTION WITH THE AGE DISCRIMINATION IN EMPLOYMENT ACT

A letter from the Secretary of Labor, transmitting, pursuant to law, a report relating to activities in connection with the Age Discrimination in Employment Act of 1967, dated January 1972 (with an accompanying report); to the Committee on Labor and Public Welfare.

#### REPORT ON POSITIONS IN GRADES GS-16, GS-17, AND GS-18

A letter from the Deputy Comptroller General of the United States, transmitting, pursuant to law, a report on positions in grades GS-16, GS-17, and GS-18, within the General Accounting Office, for the calendar year 1971 (with an accompanying report); to the Committee on Post Office and Civil Service.

#### REPORT OF U.S. ATOMIC ENERGY COMMISSION

A letter from the Chairman and Members of the U.S. Atomic Energy Commission, transmitting, pursuant to law, a report of that Commission, for the year 1971 (with an accompanying report); to the Joint Committee on Atomic Energy.

### PETITIONS

Petitions were laid before the Senate and referred as indicated:

By the PRESIDENT pro tempore:

A resolution adopted by the United Daughters of the Confederacy, Atlanta, Ga., expressing resentment at the passage of H.R. 140, providing for a so-called National Historic Site at Andersonville, Ga.; to the Committee on Interior and Insular Affairs.

### REPORTS OF COMMITTEES

The following reports of committees were submitted:

By Mr. JORDAN of North Carolina, from the Committee on Public Works, with amendments:

S. 3033. A bill to provide that the lock and dam referred to as the "Columbia Lock and Dam" on the Chattahoochee River, Ala., shall hereafter be known as the George William Andrews Lock and Dam (Rept. No. 92-599).

### EXECUTIVE REPORTS OF COMMITTEES

As in executive session, the following favorable reports of nominations were submitted:

By Mr. THURMOND, from the Committee on Armed Services:

Rear Adm. David H. Bagley, U.S. Navy, for appointment as Chief of Naval Personnel in the Department of the Navy; and

Rear Adm. David H. Bagley, U.S. Navy, for commands and other duties of great importance and responsibility determined by the President, for appointment to the grade of vice admiral while so serving.

Mr. SAXBE. Mr. President, from the Committee on Armed Services I report favorably 33 flag and general officers in the Army, Navy, and Marine Corps. I ask that these names be placed on the Executive Calendar.

The PRESIDING OFFICER. Without objection, it is so ordered.

The nominations, ordered to be placed on the Executive Calendar, are as follows:

Rear Adm. Douglas C. Plate, U.S. Navy, for commands and other duties determined by the President, for appointment to the grade of vice admiral while so serving;

Rear Adm. Robert S. Salzer, U.S. Navy, for commands and other duties determined by the President, for appointment to the grade of vice admiral while so serving;

Rear Adm. Stansfield Turner, U.S. Navy, for commands and other duties determined by the President, for appointment to the grade of vice admiral while so serving;

Vice Adm. Robert L. Townsend, U.S. Navy, for appointment to the grade of vice admiral when retired;

Lt. Gen. Donn J. Roberston, U.S. Marine Corps, when retired to be placed on the retired list in the grade of lieutenant general; and

Maj. Gen. Kenneth Howard Bayer, Army of the United States (brigadier general, U.S. Army), and sundry other officers, for promotion in the Regular Army of the United States.

Mr. SAXBE. Mr. President, in addition I report favorably 178 promotions to lieutenant colonel in the Army and 131 promotions in grade of colonel and below in the Air Force. Since these names have already appeared in the CONGRESSIONAL RECORD, in order to save the expense of printing in the Executive Calendar, I ask unanimous consent that they be ordered to lie on the Secretary's desk for the information of any Senator.

The PRESIDING OFFICER. Without objection, it is so ordered.

The nominations, ordered to lie on the desk, are as follows:

Godfrey D. Adamson, Jr., and sundry other officers, for promotion in the U.S. Air Force; and

Fausto Acosta-Natal, and sundry other officers, for promotion in the Army of the United States.

### INTRODUCTION OF BILLS AND JOINT RESOLUTIONS

The following bills and joint resolutions were introduced, read the first time and, by unanimous consent, the second time, and referred as indicated:

By Mr. MONDALE (for himself, Mr. CRANSTON, Mr. BAYH, Mr. BURDICK, Mr. HARRIS, Mr. HART, Mr. HARTEKE, Mr. HUGHES, Mr. HUMPHREY, Mr. JACKSON, Mr. KENNEDY, Mr. MCGOVERN, Mr. METCALF, Mr. MOSS, Mr. MUSKIE, Mr. NELSON, Mr. PELL, Mr. RANDOLPH, Mr. STEVENSON, Mr. TUNNEY, and Mr. WILLIAMS):

S. 3092. A bill to amend and expand the Emergency Employment Act of 1971 to reduce national unemployment and stimulate noninflationary economic growth. Referred to the Committee on Labor and Public Welfare.

By Mr. JAVITS:

S. 3093. A bill to amend Section 1039 of the Internal Revenue Code of 1954 (relating to certain sales of low-income housing projects). Referred to the Committee on Finance.

By Mr. ANDERSON (for himself and Mr. CURTIS) (by request):

S. 3094. A bill to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other pur-

poses. Referred to the Committee on Aeronautical and Space Sciences.

By Mr. PROXMIRE:

S. 3095. A bill to amend title II of the Interstate Commerce Act in order to exempt from certain provisions of such title motor vehicles used in carrying processed milk products. Referred to the Committee on Commerce.

By Mr. BIBLE (for himself and Mr. CANNON):

S. 3096. A bill to convey to the Ely Indian Colony the beneficial interest in certain Federal land. Referred to the Committee on Interior and Insular Affairs.

By Mr. BYRD of West Virginia (for Mr. JACKSON) (for himself and Mr. ALLOTT) (by request):

S. 3097. A bill to authorize appropriations for the Saline Water Conversion program for fiscal year 1973, to delete section 6(d) of the Saline Water Conversion Act, and for other purposes. Referred to the Committee on Interior and Insular Affairs.

By Mrs. SMITH:

S.J. Res. 192. A joint resolution proposing an amendment to the Constitution of the United States with respect to the attendance of Senators and Representatives at sessions of the Congress. Referred to the Committee on the Judiciary.

### STATEMENT ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mr. MONDALE (for himself, Mr. CRANSTON, Mr. BAYH, Mr. BURDICK, Mr. HARRIS, Mr. HART, Mr. HARTEKE, Mr. HUGHES, Mr. HUMPHREY, Mr. JACKSON, Mr. KENNEDY, Mr. MCGOVERN, Mr. METCALF, Mr. MOSS, Mr. MUSKIE, Mr. NELSON, Mr. PELL, Mr. RANDOLPH, Mr. STEVENSON, Mr. TUNNEY, and Mr. WILLIAMS):

S. 3092. A bill to amend and expand the Emergency Employment Act of 1971 to reduce national unemployment and stimulate noninflationary economic growth. Referred to the Committee on Labor and Public Welfare.

#### EMERGENCY EMPLOYMENT ACT AMENDMENTS

Mr. MONDALE. Mr. President, I introduce for myself and the Senator from California (Mr. CRANSTON), and for a number of other Senators, a bill to increase substantially the authorizations under the Emergency Employment Act of 1972. Such action is desperately needed to reduce national unemployment and stimulate noninflationary economic growth.

Last year's unemployment rate averaged close to 6 percent and the year closed with a 6.1 percent level in December. The average rate of unemployment for 1971 was the highest in 10 years, while the annual rate of inflation averaged close to 4 percent. By now, we should be convinced that high unemployment is not the cure for inflation. Yet, some economists suggest that we will have to learn to live with 5 percent or even 6 percent unemployment.

I am glad that the President has endorsed the goal of full employment. But he has given us no plan or program to achieve that goal, as traditionally defined—that is, with only 4 percent unemployed. His economic report does not forecast such a level. In fact, the Chairman of the Council of Economic Advisers, CEA, Dr. Stein, has said it may be dangerously inflationary to reach the 4 per-

cent level through economic stimulus. I refuse to accept 6 percent unemployment as a necessity. I am unwilling to accept even a 5-percent rate of unemployment as a new definition of full employment. And I reject the theory that getting the unemployment rate below 5 percent means accepting a higher rate of inflation. I am offering a bill which can reduce unemployment without contributing to inflation, because it will put unemployed people to work without creating upward pressure on wage rates.

A breakdown of unemployment into its basic elements focuses on transitional, cyclical, and structural components. Economists generally call "cyclical" that unemployment which results from a general decline in the rate of economic activity. "Structural" unemployment is caused by technological and geographical changes in industry. "Transitional" unemployment relates to workers who are merely between jobs. When aggregate demand picks up, cyclical unemployment declines as laid off employees are recalled, and new jobs open up for others. But the structurally unemployed worker must either find a new skill or a new location in which to practice his skill, or both. And the CEA alleges that transitional unemployment has expanded greatly. In that connection, it concludes that there is a need to deal more directly with the problem—annual report, page 116.

Clearly, all three kinds of unemployment are present. Whether they are unemployed miners of Appalachia, unemployed aircraft workers of California or Washington, unemployed engineers in Massachusetts or Minnesota, unemployed teachers or salesmen, or unemployed youths or women just entering the labor market, we can and must do something for them—and for America—because we need their talents and their contributions to national growth.

A look at recent governmental action reveals efforts in both fiscal and monetary realms aimed at reducing unemployment. But it is clear that the effects will not be significant, even according to spokesmen for the administration. The annual report of the CEA forecasts a decline only to the neighborhood of 5 percent by the year's end—page 26.

The thrust of the administration's international monetary policy—first the 10-percent subcharge, and then devaluation of the American dollar—was twofold. The primary aim was to reduce our balance-of-payments deficit. But another benefit should be growth in employment here at home.

The administration has forecast that the devaluation of the dollar and resultant increase in exports would create 500,000 to 675,000 jobs in the United States, but that it might take 2 years to come about. However, during the period that these jobs are being created, there will be 1.5 to 2 million new entrants into the labor force annually. So this development, welcome as it is, cannot even assure us of standing still.

In the fiscal policy realm, Congress has passed the Revenue Act of 1971, including most of the President's recommendations. One of the cornerstones

of the Revenue Act is said to be job development. The 7-percent investment tax credit for industry was designed to provide a stimulus toward the creation of jobs. However, since industry is operating well below capacity, the incentive to invest in increased capacity is dubious. Significantly, we have had few estimates of the additional jobs we should expect from this measure.

In a nutshell, the problem we are trying to solve is that of 5 million unemployed Americans—people who want to work. Instead, we are spending billions of dollars on unemployment compensation and welfare payments. We paid out \$78 million in unemployment benefits in Minnesota, alone, last year. But we have, as yet, no plan or program to give them the work they would prefer to do.

What, then, is the answer? It seems to me to be public service employment. The industry of public service is one in which there is tremendous need for jobs to be done. At the same time, creating new jobs is, without a doubt, the most reliable way of counteracting the unemployment problem. I am glad that the CEA's annual report recognized this by stating that:

When unemployment is high, the development of additional jobs in areas of unmet public needs is possible and desirable (p. 109).

The actual number of jobs needed to accomplish objectives at the local government level has been estimated by several sources. The Commission on Technology, Automation, and Economic Progress estimated in 1966 that 5.3 million new jobs could be created through public service employment. Greenleigh Associates, in a 1965 study for the Office of Economic Opportunity entitled "A Public Employment Program for the Unemployed Poor," estimated that 4.3 million jobs could be filled in public service activities.

Mr. Harold Sheppard, in a study for the Urban Coalition, in cooperation with the U.S. Conference of Mayors, reported in 1969 that in 130 selected cities, mayors estimated that 280,000 positions could be promptly created to provide needed services. Clearly, the same needs are present in other cities and in State and county governments all across the country.

As Mr. Sheppard said in his paper:

Unfortunately, this need (for public services) has been obscured by the use of such terms as "government as employer of last resort", which implies that such employment should be advocated and provided only after private enterprise has failed to employ everyone; that these jobs with government agencies are only temporary, pending the rise in demand for workers in private enterprise; and that such jobs are not very desirable for the individual or useful and worthwhile to the community.

Studies have shown that the need and capacity for public service workers and creation of public service jobs within local government far exceeds the funds available to provide for such jobs. We are now in a period when city and local governments are feeling the increasing pinch of lack of funds to accomplish needed objectives. At the same time, unemployed workers are willing to work for the going level of wages. What better

opportunity than to match up these resources with the work that needs to be done in such areas as pollution control, sanitation, recreation, police and fire protection, health services, child care, and education.

Statistics show that the current public service employment program developed under the Emergency Employment Act of 1971 is progressing very well. Already, approximately 100,000 have been employed. Ninety-one percent of these were unemployed before obtaining the public service employment job. The remaining 9 percent were underemployed. Thirty percent of the workers in such jobs are Vietnam-era veterans. Thirteen percent are professionals, including 6 percent who are teachers. Forty-four percent are high school graduates, 18 percent have attended college, and another 18 percent are college graduates.

These statistics show that the individuals who are finding employment in these public service jobs are a different group from those whom welfare and other manpower training programs are reaching. They are basically individuals who have good work records but who, because of circumstances beyond their control, find themselves incapable of obtaining employment.

While I think that this new public service employment program is excellent, I also believe that because of its limited size, it has caused serious frustrations. It frustrates governments which are in great need of having public services performed, and it frustrates individuals who are out of work, unable to find jobs, and who are ready, qualified, and eager to hold responsible positions providing public services to those in their communities. To take an example from my own State: Duluth, a city of 100,000, is experiencing substantial unemployment. In November, about 1,200 people were thrown out of work when a steel plant closed down part of its operation. Duluth has been allocated a mere 33 jobs under this new program.

My bill will make the following changes in this excellent program:

First. Increase the fiscal 1972 authorization under the national triggered program from \$750 million to \$1.5 billion and the 1973 authorization from \$1 billion to \$3 billion.

Second. Increase the authorization for special assistance in localities with 6 percent unemployment from \$250 million to \$500 million for fiscal 1972 and \$1 billion for fiscal 1973.

Third. Reduce the unemployment level at which the national program is authorized from 4.5 percent to 4 percent.

Fourth. Generally require that the funds authorized to be distributed to States and localities be apportioned strictly on the basis of their share of unemployment.

Fifth. Provide that voluntary combinations of units of local government may be eligible for receiving grants.

Sixth. Eliminate the requirement that the jobs provided under the program be transitional.

Seventh. Eliminate the 10-percent fund-matching requirement by States and local areas, to allow local governments suffering from financial pressures



to take greater advantage of available funds.

This bill should make it possible to increase employment under the program to at least 400,000 by June and to 500,000 later in the year. If administration forecasts are correct, we will still have more than 4 million unemployed by the end of the year. Therefore, there is clearly room for all of these jobs—and more—without contributing to inflation. I hope the bill will be enacted speedily.

TIME FOR A TRUE FULL EMPLOYMENT STRATEGY:  
MERGING THE URGENT NEEDS FOR PUBLIC  
SERVICES AND NEW JOBS

Mr. CRANSTON. Mr. President, I am delighted to join today with the distinguished Senator from Minnesota (Mr. MONDALE) in introducing S. 3092. This bill, a companion measure to one introduced in the other body (H.R. 12012), would expand the Emergency Employment Act of 1971, the basic provisions of which are operative when national unemployment exceeds 4.5 percent. Instead of the 145,000 jobs the Department of Labor estimates will be created under the Emergency Employment Act, Senator MONDALE's bill proposes a program that would provide some 500,000 jobs. I will shortly introduce legislation for a permanent program to provide 1.25 million new public service jobs, regardless of the rate of unemployment.

With over 5 million Americans unemployed, and at least 13.7 million underemployed—according to the Cost of Living Council—the need for jobs in public service cannot be doubted.

Mr. President, the time has come for this Nation to face up to its responsibilities to provide opportunity for work at decent wages for all its citizens.

This has been our stated goal for decades. Franklin Roosevelt made it the keystone of his economic bill of rights, proposed in those hopeful days when the last world war was drawing to a close.

We have not fulfilled that promise. And the price we pay is the national humiliation and individual and family tragedy of American poverty. Think of it: The most prosperous Nation the world has ever known must face the fact that poverty is its most pressing and persistent domestic problem.

We claim that our society is just and democratic. We want it to be nothing less. Yet the social fabric of our inner cities and rural backlands is torn apart by desperate human need in the midst of extraordinary private affluence. The danger and disastrous consequences touch the lives of each of us.

Aerospace engineers, who have built their lives upon service to our Nation in space and defense, are now exhausting their unemployment insurance, and then finding themselves on welfare—where that is available—with their children hungry, their pride gone, and their families collapsing.

Veterans who have risked their very lives—and often lost limbs or been otherwise maimed—in the Nation's service are unable to find jobs upon returning to this great, generous Nation.

Last month, December 1971, unemployment for Vietnam era veterans 20 to 29 years old stood at 8.1, meaning that

325,000 returned veterans were then out of work. Moreover, unemployment among nonwhite Vietnam era veterans was running 13.8 percent in the last 3 months of 1971, almost double the rate—7.1—for their white veteran counterparts. And during all of 1971, one quarter of all unemployed recent veterans had been job-hunting for an average of 15 weeks.

The latest figures available to me for California's unemployment among Vietnam era veterans is that in the third quarter of 1971 over 55,000 were jobless.

For aerospace engineers and for returned veterans the Nation, at least, is turning a sympathetic ear even though there is not always thoroughgoing followthrough. But for those thousands and thousands of people, forced from farms and rural areas in the decades since World War II, for these people who have faced a generation of joblessness and hopelessness the country is less understanding, feels less responsible, and hence is less responsive in terms of programmatic reforms.

The crisis in welfare is the ugly fruit of our long neglect of real solutions, while offering only palliatives, to the problem of poverty.

Why are most Americans hostile to welfare? Because they believe people ought to work and support their families. And most Americans have been simply unaware of the number of those on welfare who could not work even if jobs were available, and of the extent of the total lack of adequate job opportunities and the shocking scale of unemployment and subemployment in poverty neighborhoods over the past decades.

The problem of job-associated poverty is much more serious than most people realize. In 1966, Secretary of Labor W. Willard Wirtz surveyed the poverty neighborhoods of 10 major cities. He found that the problem was not simply unemployment, but part-time and low paying jobs—jobs that paid below the minimum wage. He also found that many, many workers were so discouraged that they had ceased even to look for work.

Secretary Wirtz put these factors into a "subemployment" index, and determined that over 30 percent of the inner city residents were not able to earn above poverty wages in the ghetto labor market.

In a memo to President Johnson, Wirtz said:

If a third of the people in the nation couldn't make a living . . . there would be a revolution. This is the situation and the prospect unless action is taken in the nation-within-a-nation, the slums and ghettos.

The Bureau of the Census has just released a followup study of poverty neighborhoods in 60 cities conducted as part of the 1970 census. The Government did not calculate a "subemployment" index, but all the factors Wirtz considered are available. For Oakland, Calif., for instance, if you add together the unemployed, the hopeless, and discouraged workers who no longer seek jobs, the part-time workers seeking full-time jobs and those working full time but earning less than \$2 an hour, we find that a staggering

34 percent of the work force of Oakland is unemployed or underemployed. This is the shocking situation in all too many cities all across our land. Thus, even after 4 years of the poverty program and special manpower training programs aimed at ghetto unemployment, the problem continues to grow more serious.

It is underemployment—as much as unemployment itself—that is at the roots of the poverty and welfare crisis.

The crisis that faces the aerospace worker's family and the returned veteran has been the gray, hopeless reality faced for the past 20 years by those Americans who have come to the inner city in hopes of better things.

Between the end of World War II and President Kennedy's administration, the problem was ignored. Under Kennedy, modern economics began to gain acceptance in Washington. Now even a Republican President declares himself a Keynesian.

How have the new methods worked? They have had some success in stimulating the economy as a whole. But they have not been effective in fighting unemployment where it hurts the worst, among the poor, the black, the Chicano, the Indian, the disadvantaged. They have not produced significantly more jobs and they have contributed to a runaway inflation which convinced even a President who had long spoken in classical economic terms of the advisability of wage and price controls.

Treasury Secretary Connally in September suggested that perhaps 5 percent unemployment is the best we can do in peacetime. That would mean 4.2 million Americans unemployed with our present work force. As the work force grows in the coming years, it would mean still more unemployed.

What does the good Secretary suggest we do with these people: stamp them surplus and put them in mothballs? Shall we place them on a permanent dole?

If this Nation were now as prosperous in public goods—in housing and schools, and hospitals and transportation, in parkland and recreation facilities—as some segments of our population are in the goods of private life, then perhaps it would be time to consider resting on our oars and sharing the leisure some enjoy.

But that is not the case. The Nation is, in fact, starved for many public goods in the midst of private opulence.

The fact of the matter is, we need the mind and muscle and the hard, good work of all our citizens if we are to meet the enormous challenges of the last quarter of this century if we are to make a highly technological and growing society a living habitate for democratic man. We need full employment, not just to provide work and income to individuals, and to sustain their families, but to meet the Nation's needs.

The administration—while basing its full employment annual budgeting on the assumption that government income would provide a surplus if the unemployment were down to 4 percent, is now seriously suggesting that that 4 percent is an unrealistic goal.

The President's Council of Economic Advisors now suggests that persistent high unemployment accompanied by rapid inflation has become a structural feature of the American economy.

If the pursuit of full employment through stimulation of the economy as a whole has failed as a policy, if we are reaching unacceptable levels of inflation before coming close to achieving full employment through expansionary economic policies, then the time has come to go beyond such traditional job-stimulation policy.

We must not despair of achieving full employment. We must find other means of achieving it.

A full employment policy at decent wage rates for decent jobs will require very broad scale economic and social policy. It will require broad programs, including economic growth strategies for depressed areas, funded at a level that promises success. It will require a new policy in housing construction and in transportation. It will require a higher minimum wage, and expanded training programs.

But such a broad strategy can be planned and carried out only by an administration that takes full employment as the highest domestic priority. An administration that sought for 2 years to fight inflation by deliberately increasing unemployment is not likely to be drawn to such a course. But even this administration is beginning to sense the inadequacies of its standard approaches.

The President's Council of Economic Advisors itself has at last begun to recognize that fiscal and monetary policy alone will not bring us to full employment. The Council states in its 1972 annual report:

When unemployment is high, the development of additional jobs in areas of unmet public needs is possible and desirable. Initiation of the . . . Emergency Employment Act was a major step forward in this area (Page 109).

The Council attributes much of our current unemployment—too much, I believe—to the large percentage of teenagers and women now in the labor force. The Council points out that unemployment, especially among these groups, has not responded, as economic theory would predict, to expansion of the general economy. The report stated:

The persistence of this large difference (between unemployment rates for teenagers and those for married men) in both good times and bad suggests that factors other than lack of aggregate demand cause the differential.

It is my belief, Mr. President, that the nagging persistence of unemployment, not only for teenagers and women, but for blacks and all persons living in poverty communities in our inner cities and rural areas, is the result of the structure of our economy.

The administration has just taken official note of the seriousness of the underemployment problem. Congress in extending authority to impose controls on the economy required that no ceiling be imposed on pay raises given those who are paid a substandard wage. The Cost of Living Council has now set the level

of substandard wage at any pay below \$1.90 an hour. The fact is that 15 percent of the labor force—some 13.7 million Americans—now work for wages beneath the Cost of Living Council's standard.

In a story yesterday, the Washington Post tells how the \$1.90 an hour figure was reached. The Pay Board recognized that the Bureau of Labor Statistics low adequate budget—\$6,960 for an urban family of four—represents a reasonable figure. The Pay Board lowered that figure to take into account tax cuts and other factors and recommended a substandard wage level of \$2.20 an hour.

The Cost of Living Council lowered that figure to \$1.90 an hour by calculating that there are an average of 1.7 workers in every American family. However, the fact of the matter is, that for poverty families there are only 0.88 workers per family, so the substandard wage level ought to be considerably above the \$2.20 level, if anything. Whatever the administration's calculations are, it is very significant that it has now officially recognized the poverty line—now set at \$4,000 a year for an urban family of four—is not a level of income adequate to support family life.

The administration's family assistance plan, FAP, sets the maximum level for assistance at \$4,320, slightly higher than the poverty level. Both the poverty level and the FAP level, however, are arbitrary. They are not based on any actual measure of what it costs to live. In contrast, the Bureau of Labor Statistics' figure of \$6,960 is based on an actual market basket of goods needed for an adequate life. The BLS figure comes much nearer to defining the true extent of poverty in this Nation than the commonly accepted "poverty line" indicator. The Senate in passing child developments legislation last year in S. 2007 used the BLS figures to establish the level for free child care services. I am pleased to welcome the administration to the ranks of those who recognize that these figures are sound.

Last summer, we had the privilege of welcoming the administration to our ranks in support of the Emergency Employment Act which the President had strongly opposed during the winter and spring of 1971.

It is clear, if we are to provide an adequate supply of jobs at decent wages to all Americans, that the Government must undertake direct job-creation efforts. We must continue the beginning we have made. Thus, we have the bill I join in introducing today with Senator MONDALE to extend the Emergency Employment Act.

However, important as emergency employment jobs are, I do not believe that they are enough. It is time to move beyond "transitional" programs and to begin seriously to consider ways of providing decent jobs at decent pay for all Americans who seek work.

Thus, I will introduce within the next few weeks a bill to establish a continuing nationwide public service employment program, regardless of national or regional unemployment rates. The program I propose would be similar in structure to that which the Senate passed in

September 1970, as part of the Employment and Training Opportunities Act of 1970.

The bill would authorize spending \$10 billion, enough for more than 1.25 million jobs. These jobs are needed if the Nation is to achieve full employment. We now have 5.2 million unemployed. And according to Bureau of Labor Statistics figures, there are at least another 788,000 discouraged workers, men who are not seeking work because they despair of finding it. This is a real unemployment total of 6 million persons. Add to that the 13.7 million Americans working for substandard wages, and we have the enormous dimension of the need—almost 20 million decent jobs. This lack of employment opportunities affects 72 million Americans, taking into accounts the 3.6 person average family. One and a quarter million jobs would hardly be an overreaction to this great need.

During 1971, average unemployment for all male workers 20 and over was 2,086,000. My legislation would provide help for many unemployed Americans. But for recent veterans the Federal Government must carry a compelling responsibility. We have asked these men to risk their lives. At a time when they might have been learning the trades of peaceful commerce, we have required them to master the arts of war. My bill would provide special recognition of the unemployment problems of Vietnam era veterans by according them a preference for public service jobs. Most every veteran has received some military training which should enhance his job skills. The Nation owes these men a quick transition to a decent civilian job.

Our experience with the Emergency Employment Act indicates that jobs cost an average of \$7,200 each under that program. However, that bill is very restrictive, providing little funding for training or for administration. A continuing program would require funds for training, administration—kept to a minimum necessary—tools, and light equipment.

Where would the money come from? In my opinion, full employment is this Nation's only hope if we are to avoid a society divided between the working citizens and a permanent welfare class. We cannot afford continued, everlasting high rates of unemployment. It is not a question of affording jobs. We cannot afford high unemployment.

The Nation needs full employment a good deal more than it needs a \$6.3 billion increase in the already swollen defense budget. We have cut costs in Vietnam from a recent high of \$29 billion a year ago to perhaps as little as \$8 billion in the fiscal year 1973 budget. That money could be much better used meeting our public needs than lost in the labyrinth of the Pentagon budget.

Under my bill the employment program would be designed and controlled at the local level, but 90 percent of the funds would come from the Federal Government. Cities and counties of 50,000 population would organize public service employment councils, representing government, business, labor, poverty organizations, veterans, schools, and private service groups.



The council would inventory public service and economic development needs, establish priorities and design programs. Mayors, county executives and other eligible sponsors would file the applications for Federal funds to operate programs.

Federal standards would seek to insure that programs were: well designed and planned; provide special preferences for Vietnam-era veterans and persons on welfare; provide equitable treatment for significant population groups, such as the disadvantaged, blacks, chicanos, Indians, older workers and youth; provide for job redesign and civil service reform to assure that entry and advancement in civil service are based on true merit and not on arbitrary standards and tests; and paid the minimum wage, \$1.60, or the prevailing wage, whichever is higher.

Under my bill, public service jobs could be carried out not only by governmental units, but also through such organizations as community action agencies, community development corporations, United Fund agencies and other private organizations.

The bill will differ substantially from the Emergency Employment Act.

It will not be transitional. The Emergency Employment Act would end when national unemployment fell below 4.5 percent. But 4.5 percent is not full employment. Even 4 percent is too high. In any event, with the national rate down to some acceptable level, in pockets of poverty we would still be faced with destructively high levels of unemployment. What is needed is a continuing program of public service jobs.

For individuals, however, every effort would be made to move them from federally subsidized jobs into permanent jobs in the civil service or appropriate employment in the private sector. Normal turnover in public payroll jobs should make it possible for most of those hired on public payrolls under this act to move on to unsubsidized jobs. For others, the expansion of economic activities in their communities, in part stimulated by this legislation, will afford new job opportunities in the private sector.

This bill will be more like the section 6 program in the Emergency Employment Act that provides funds for areas with 6 percent or higher unemployment even after the national EEA program ends. The Labor Department has identified over 700 areas with such high and unacceptable levels of unemployment in the Nation.

Is the proposal realistic?

Two years ago, many did not take us seriously when Senator NELSON, chairman of the Employment, Manpower, and Poverty Subcommittee and other members of the subcommittee proposed a modest public service employment program as part of the comprehensive manpower legislation then being considered. In fact, the President vetoed that legislation after it had passed Congress. But within 6 months Congress had enacted an even larger, though still modest, public service employment program, and the President signed it into law. Many months have passed. Various policies have been launched and tested. Yet we are still afflicted with an average unemployment rate of 6 percent.

And, as I have pointed out, the administration's latest pronouncements reveal a dawning understanding of the need for new employment strategies.

President Nixon is not an inflexible man. The President astonished the Nation by reversing lifetime policies and announcing his trip to Peking. In his search for peace, he surprised the Nation by abandoning long-held views to embrace Keynesian economics in order to deal with the recession. It is not inconceivable that he will startle the Nation by reversing lifetime policies and deciding to support large-scale public service employment as the way to really deal with unemployment.

Many questions remain to be answered.

How much stimulation to State and local economies can we expect from a great local expansion of public service employment opportunities? In other words, what will be the multiplier effect in terms of job creation of providing funds for one and a quarter million new jobs?

What is the proper mix of jobs on public payrolls and jobs with private agencies carrying out public service employment programs?

What percentage of the jobs ought to be allocated to teenagers, middle-aged and older workers, minority groups, migrants, those on welfare, and other especially hard-hit groups?

How can we best insure more movement of workers from public service employment jobs onto unsubsidized employment?

How can a major public service employment policy fit into larger national economic planning efforts?

We hope that experience with the Emergency Employment Act and hearings in the bill we introduce today and the measure I will shortly introduce will provide answers to these and other questions that remain to be answered.

However, the need for more public services and the need for more jobs is desperate. The need is now. The time to act is now.

America's promise of democracy, equality before the law, and economic opportunity is not a promise for only some of its citizens. It is the promise of hope and opportunity for all.

Mr. President, for too long we have relied upon the vast natural resources of the country and the autonomous workings of the economy to meet our obligations for providing adequate employment opportunity. Just as today we are debating the merits of strengthening Federal Government powers to strike out against job discrimination, we can no longer continue to avoid our responsibility to provide enough jobs.

To continue to rely on prescriptions of the past will be to divide this Nation into the separate worlds of the jobless, employed, and the satisfied, on the one hand, and the jobless and the resentful on the other. It is long past the time when we must develop remedies equal to the seriousness of the problem. It is time for a true full employment strategy for the Nation.

By Mr. JAVITS:

S. 3093. A bill to amend Section 1039 of the Internal Revenue Code of 1954

(relating to certain sales of low-income housing projects). Referred to the Committee on Finance.

Mr. JAVITS. Mr. President, in the Tax Reform Act of 1969 section 1039 relating to sales of low-income housing projects was added to the Internal Revenue Code. The purpose of this section is to provide for nonrecognition of gain if a "qualified housing project" is sold by a taxpayer and within a certain specified period the taxpayer constructs or acquires another qualified housing project. The term "qualified housing project" was defined as one in which a mortgage is insured under section 221(d)(3) or 236 of the National Housing Act and which is limited as to rate of return on investments and as to rentals charged for units in the project.

This section allows an initial investor in a federally assisted housing project to sell the property to the occupants or to a tax-exempt organization managing the property without paying tax on any gain that might be involved in the transaction. This would allow private developers to construct housing and turn it over to nonprofit groups or to tenants for their use.

At the time the Tax Reform Act was passed by the Senate I offered an amendment, which was accepted on the Senate floor by the managers of the bill, to apply section 1039 to State and local programs which contained the same controls as the Federal programs, and which would be approved by HUD. My amendment was deleted in conference and did not become law.

I believe that this tax incentive should be extended to housing under State or local programs which are assimilated to the Federal program and which are based upon guaranteed mortgages, direct loans or which operate through tax abatement. In New York State this would apply to programs such as those operated by the State urban development corporation and the State Mitchell-Lama program. According to the Department of Housing and Urban Development approximately 19 other States beside New York have enacted legislation establishing viable State assisted housing programs. Under my bill State programs would be eligible for the same preferential tax treatment in section 1039, which is now granted to the Federal programs. I believe that this would further encourage the development of housing for low- and moderate-income persons. Much greater use could be made of section 1039 than is presently being done.

I have written to the Department of Housing and Urban Development and the Treasury Department asking them to comment on this legislation and both have indicated that the extension of section 1039 to State and local programs would be a desirable step. I would hope that this legislation could be enacted as soon as possible so that greater use could be made of section 1039.

I ask unanimous consent that my letters to the Treasury Department and HUD, together with their replies be placed in the RECORD at this point.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

NOVEMBER 19, 1971.

HON. GEORGE W. ROMNEY,  
Secretary, Department of Housing and Urban  
Development, Washington, D.C.

DEAR MR. SECRETARY: The Tax Reform Act of 1969 as enacted into law contained a provision allowing for nonrecognition of gain to the initial investor in a housing project insured under Section 221(d)(3) of Section 236 where the properties are sold to the occupants or a tax-exempt organization managing the property, but only to the extent that the investor reinvests the sale proceeds in other similar housing.

At the time this legislation was considered in the Senate I offered an amendment to extend this favorable tax treatment to projects which are insured under state or local programs which have been certified by the Secretary of Housing and Urban Development to be in accord with the standards used in approving the sale or disposition of a qualified housing project under federal programs. Unfortunately this amendment was deleted in the Conference Committee and did not become law.

I am planning to submit the amendment again on the pending tax legislation since many states, like New York State, now have responsible state programs for low and moderate income housing. I believe it is essential to extend Section 1039 to these state-assisted programs so that it can work more effectively.

I would appreciate your comments as to the merits of my amendment and any other suggestions you might have on the matter.

With warm regards,

Sincerely,

JACOB K. JAVITS.

THE SECRETARY OF HOUSING  
AND URBAN DEVELOPMENT,  
Washington, D.C., December 9, 1971.

HON. JACOB K. JAVITS,  
U.S. Senate,  
Washington, D.C.

DEAR JACK: This letter is in response to your letter of inquiry of November 19, 1971, regarding a proposed amendment to Section 1039 of the Internal Revenue Code. I appreciate your desire to obtain our opinion prior to the introduction of such a measure.

At the present time the Department "certifies" state and local programs for the purpose of qualifying them to receive interest subsidy payments under Section 236(b) of the National Housing Act. Our certification for that purpose does not include any review of the standards used in approving the sale or disposition of a qualified housing project. Perhaps the legislation should call for a separate certification by the Department to the Internal Revenue Service of the fact that the standards used by the state and local program in question for such purposes are in accord with the standards used under Federal programs.

I certainly agree that the extension of Section 1039 to the state and local programs, where they qualify, would be in our interests in assisting the growth of those programs. I would also like to suggest that you consider a further extension of Section 1039 to include non-profit sponsors.

I appreciate your inquiry.

Sincerely,

/s/ George  
GEORGE ROMNEY.

NOVEMBER 22, 1971.

MR. JOHN B. CHAPOTON,  
Tax Legislative Counsel Department of the  
Treasury, Washington, D.C.

DEAR MR. CHAPOTON: The Tax Reform Act of 1969 which is now Section 1039 in the Internal Revenue Code which allows for nonrecognition of gain to the initial investor in a housing project insured under Section 221(d)(3) or Section 236 of the National Housing Act where the properties are sold to the occupants or a tax-exempt organization

managing the property, but only to the extent that the investor reinvests the sale proceeds in other similar housing.

At the time this legislation was considered in the Senate I offered an amendment to extend this favorable tax treatment to projects which are insured under state or local programs which have been certified by the Secretary of Housing and Urban Development to be in accord with the standards used in approving the sale or disposition of a qualified housing project under federal programs. Unfortunately this amendment did not become law.

I am planning to submit the amendment again this year to an appropriate tax bill since many states, like New York State, now have responsible state programs for low and moderate income housing. I believe it is essential to extend Section 1039 to these state-assisted programs so that it can work more effectively.

I would appreciate your comments as to the merits of my amendment and any other suggestions you might have on the matter. I am enclosing a copy of the amendment language for your review.

With best wishes,

Sincerely,

JACOB K. JAVITS.

OFFICE OF THE SECRETARY  
OF THE TREASURY,

Washington, D.C., December 10, 1971.

HON. JACOB K. JAVITS,  
U.S. Senate,  
Washington, D.C.

DEAR SENATOR JAVITS: This is in response to your letter of November 22, 1971, in respect to a proposed amendment to section 1039 of the Internal Revenue Code of 1954.

Section 1039 generally provides for nonrecognition of the gain realized on the sale of a "qualified housing project" to the extent the proceeds are reinvested in another qualified housing project. Under section 1039 (b) a "qualified housing project" is a project with respect to which the owner is limited as to the rate of return and limited to rate of occupancy charges; and with respect to which a mortgage is insured under section 221(d)(3) or section 236 of the National Housing Act. Thus, section 1039 is presently limited to Federally-sponsored housing projects.

Your amendment would extend section 1039 to apply to state or local housing projects which have been certified, under standards approved by the Secretary of Housing and Urban Development, as being comparable to qualified housing projects under Federal programs. A similar amendment to the Tax Reform Act was introduced in 1969, but did not become law.

I agree that there is no meaningful distinction between housing projects sponsored under Federal programs and similar housing projects sponsored under state and local programs. In either case, the statute is primarily concerned that the project have a limited rate of return and that rental or occupancy charges also be limited. Where a state or local program meets these conditions, and where the program has been certified in accordance with standards approved by the Secretary of Housing and Urban Development as being consistent with the standards applied under the Federal programs, I can see no objection to extending the benefits of section 1039.

Section (b) of the proposed amendment would make these changes apply to "taxable years" beginning after December 31, 1971. Since section 1039 itself applies to "dispositions" of qualified housing projects after the effective date, you may wish to revise section (b) of your amendment to apply to dispositions after the date of enactment of the amendment.

Sincerely,

JOHN E. CHAPOTON,  
Tax Legislative Counsel.

By Mr. ANDERSON (for himself  
and Mr. CURTIS) (by request):

S. 3094. A bill to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes. Referred to the Committee on Aeronautical and Space Sciences.

Mr. ANDERSON. Mr. President, on behalf of myself and the Senator from Nebraska (Mr. CURTIS) by request, I introduce for appropriate reference a bill to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes. I ask unanimous consent that the bill be printed in the RECORD together with a letter from the Administrator, National Aeronautics and Space Administration, requesting the proposed legislation and a sectional analysis of the bill.

There being no objection, the bill, letter, and analysis were ordered to be printed in the RECORD, as follows:

S. 3094

A bill to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby authorized to be appropriated to the National Aeronautics and Space Administration:

(a) For "Research and development," for the following programs:

- (1) Apollo, \$128,700,000;
- (2) Space flight operations, \$1,094,200,000;
- (3) Advanced missions, \$1,500,000;
- (4) Physics and astronomy, \$156,600,000;
- (5) Lunar and planetary exploration, \$321,200,000;
- (6) Launch vehicle procurement, \$191,600,000;
- (7) Space applications, \$194,700,000;
- (8) Aeronautical research and technology, \$163,440,000;
- (9) Space research and technology, \$64,760,000;
- (10) Nuclear power and propulsion, \$21,100,000;
- (11) Tracking and data acquisition, \$259,100,000;
- (12) Technology utilization, \$4,000,000.

(b) For "Construction of facilities," including land acquisitions, as follows:

- (1) Rehabilitation and modification of aeronautical, airborne science and support facilities, Ames Research Center, \$1,065,000;
- (2) Rehabilitation of Unitary Plan wind tunnel model supports, control systems, and model preparation areas, Ames Research Center, \$760,000;
- (3) Rehabilitation and modification of utility systems, Goddard Space Flight Center, \$590,000;
- (4) Rehabilitation and modification of roadway system, Jet Propulsion Laboratory, \$610,000;
- (5) Modifications of, and additions to, spacecraft assembly facilities, Kennedy Space Center, \$3,100,000;
- (6) Modification of Titan Centaur facilities, Kennedy Space Center, \$2,040,000;
- (7) Rehabilitation of full scale wind tunnel, Langley Research Center, \$2,465,000;
- (8) Modification of central air supply system, Langley Research Center, \$1,175,000;
- (9) Environmental modifications for util-



ity operations, Langley Research Center, \$650,000;

(10) Modification of high temperature and high pressure turbine and combustor research facility, Lewis Research Center, \$9,710,000;

(11) Modification of fire protection system, Manned Spacecraft Center, \$585,000;

(12) Warehouse replacement, Wallops Station, \$350,000;

(13) Space Shuttle facilities at various locations, \$27,900,000;

(14) Rehabilitation and modification of facilities at various locations, not in excess of \$500,000 per project, \$11,580,000;

(15) Minor construction of new facilities and additions to existing facilities at various locations, not in excess of \$250,000 per project, \$1,720,000;

(16) Facility planning and design not otherwise provided for, \$8,000,000.

(c) For "Research and program management," \$700,800,000.

(d) Notwithstanding the provisions of subsection 1(g), appropriations for "Research and development" may be used (1) for any items of a capital nature (other than acquisition of land) which may be required at locations other than installations of the Administration for the performance of research and development contracts, and (2) for grants to nonprofit institutions of higher education, or to nonprofit organizations whose primary purpose is the conduct of scientific research, for purchase or construction of additional research facilities; and title to such facilities shall be vested in the United States unless the Administrator determines that the national program of aeronautical and space activities will best be served by vesting title in any such grantee institution or organization. Each such grant shall be made under such conditions as the Administrator shall determine to be required to insure that the United States will receive therefrom benefit adequate to justify the making of that grant. None of the funds appropriated for "Research and development" pursuant to this Act may be used in accordance with this subsection for the construction of any major facility, the estimated cost of which, including collateral equipment, exceeds \$250,000, unless the Administrator or his designee has notified the Speaker of the House of Representatives and the President of the Senate and the Committee on Science and Astronautics of the House of Representatives and the Committee on Aeronautical and Space Sciences of the Senate of the nature, location, and estimated cost of such facility.

(e) When so specified in an appropriation Act, (1) any amount appropriated for "Research and development" or for "Construction of facilities" may remain available without fiscal year limitation, and (2) maintenance and operation of facilities, and support services contracts may be entered into under the "Research and program management" appropriation for periods not in excess of twelve months beginning at any time during the fiscal year.

(f) Appropriations made pursuant to subsection 1(c) may be used, but not to exceed \$35,000, for scientific consultations or extraordinary expenses upon the approval or authority of the Administrator and his determination shall be final and conclusive upon the accounting officers of the Government.

(g) Of the funds appropriated pursuant to subsections 1(a) and 1(c), not in excess of \$10,000 for each project, including collateral equipment, may be used for construction of new facilities and additions to existing facilities, and not in excess of \$25,000 for each project, including collateral equipment, may be used for rehabilitation or modification of facilities: *Provided*, That of the funds appropriated pursuant to subsection 1(a), not in excess of \$250,000 for each project,

including collateral equipment, may be used for any of the foregoing for unforeseen programmatic needs.

(h) No part of the funds appropriated pursuant to subsection (a) of this section may be used for grants to any nonprofit institution of higher learning unless the Administrator or his designee determines at the time of the grant that recruiting personnel of any of the Armed Forces of the United States are not being barred from the premises or property of such institution except that this subsection shall not apply if the Administrator or his designee determines that the grant is a continuation or renewal of a previous grant to such institution which is likely to make a significant contribution to the aeronautical and space activities of the United States. The Secretary of Defense shall furnish to the Administrator or his designee within sixty days after the date of enactment of this Act and each January 30 and June 30 thereafter the names of any nonprofit institutions of higher learning which the Secretary of Defense determines on the date of each such report are barring such recruiting personnel from premises or property of any such institution.

Sec. 2. Authorization is hereby granted whereby any of the amounts prescribed in paragraphs (1) through (15), inclusive, of subsection 1(b) may, in the discretion of the Administrator of the National Aeronautics and Space Administration, be varied upward 5 per centum to meet unusual cost variations, but the total cost of all work authorized under such paragraphs shall not exceed the total of the amounts specified in such paragraphs.

Sec. 3. Not to exceed one-half of 1 per centum of the funds appropriated pursuant to subsection 1(a) hereof may be transferred to the "Construction of facilities" appropriation, and, when so transferred, together with \$10,000,000 of the funds appropriated pursuant to subsection 1(b) hereof (other than funds appropriated pursuant to paragraph (16) of such subsection) shall be available for expenditure to construct, expand, or modify laboratories and other installations at any location (including locations specified in subsection 1(b)), if (1) the Administrator determines such action to be necessary because of changes in the national program of aeronautical and space activities or new scientific or engineering developments, and (2) he determines that deferral of such action until the enactment of the next Authorization Act would be inconsistent with the interest of the Nation in aeronautical and space activities. These funds so made available may be expended to acquire, construct, convert, rehabilitate, or install permanent or temporary public works, including land acquisition, site preparation, appurtenances, utilities, and equipment. No portion of such sums may be obligated for expenditure or expended to construct, expand, or modify laboratories and other installations unless (A) a period of thirty days has passed after the Administrator or his designee has transmitted to the Speaker of the House of Representatives and to the President of the Senate and to the Committee on Science and Astronautics of the House of Representatives and to the Committee on Aeronautical and Space Sciences of the Senate a written report containing a full and complete statement concerning (1) the nature of such construction, expansion, or modification, (2) the cost thereof including the cost of any real estate action pertaining thereto, and (3) the reason why such construction, expansion, or modification is necessary in the national interest, or (B) each such committee before the expiration of such period has transmitted to the Administrator written notice to the effect that such committee has no objection to the proposed action.

Sec. 4. Notwithstanding any other provision of this Act—

(1) no amount appropriated pursuant to this Act may be used for any program deleted by the Congress from requests as originally made to either the House Committee on Science and Astronautics or the Senate Committee on Aeronautical and Space Sciences.

(2) no amount appropriated pursuant to this Act may be used for any program in excess of the amount actually authorized for that particular program by sections 1(a) and 1(c), and

(3) no amount appropriated pursuant to this Act may be used for any program which has not been presented to or requested of either such committee, unless (A) a period of thirty days has passed after the receipt by the Speaker of the House of Representatives and the President of the Senate and each such committee of notice given by the Administrator or his designee containing a full and complete statement of the action proposed to be taken and the facts and circumstances relied upon in support of such proposed action, or (B) each such committee before the expiration of such period has transmitted to the Administrator written notice to the effect that such committee has no objection to the proposed action.

Sec. 5. It is the sense of the Congress that it is in the national interest that consideration be given to geographical distribution of Federal research funds whenever feasible, and that the National Aeronautics and Space Administration should explore ways and means of distributing its research and development funds whenever feasible.

Sec. 6. (a) If an institution of higher education determines, after affording notice and opportunity for hearing to an individual attending, or employed by, such institution, that such individual has been convicted by any court of record of any crime which was committed after the date of enactment of this Act and which involved the use of (or assistance to others in the use of) force, disruption, or the seizure of property under control of any institution of higher education to prevent officials or students in such institution from engaging in their duties or pursuing their studies, and that such crime was of a serious nature and contributed to a substantial disruption of the administration of the institution with respect to which such crime was committed, then the institution which such individual attends, or is employed by, shall deny for a period of two years any further payment to, or for the direct benefit of, such individual under any of the programs authorized by the National Aeronautics and Space Act of 1958, the funds for which are authorized pursuant to this Act. If an institution denies an individual assistance under the authority of the preceding sentence of this subsection, then any institution which such individual subsequently attends shall deny for the remainder of the two-year period any further payment to or for the direct benefit of, such individual under any of the programs authorized by the National Aeronautics and Space Act of 1958, the funds for which are authorized pursuant to this Act.

(b) If an institution of higher education determines after affording notice and opportunity for hearing to an individual attending, or employed by, such institution, that such individual has willfully refused to obey a lawful regulation or order of such institution after the date of enactment of this Act, and that such refusal was of a serious nature and contributed to a substantial disruption of the administration of such institution, then such institution shall deny, for a period of two years, any further payment to, or for the direct benefit of, such individual under any of the programs authorized by the National Aeronautics and Space Act of 1958, the funds for which are authorized pursuant to this Act.

(c) (1) Nothing in this Act shall be construed to prohibit any institution of higher education from refusing to award, continue, or extend any financial assistance under any such Act to any individual because of any misconduct which in its judgment bears adversely on his fitness for such assistance.

(2) Nothing in this section shall be construed as limiting or prejudicing the rights and prerogatives of any institution of higher education to institute and carry out an independent, disciplinary proceeding pursuant to existing authority, practice, and law.

(3) Nothing in this section shall be construed to limit the freedom of any student to verbal expression of individual views or opinions.

SEC. 7. This Act may be cited as the "National Aeronautics and Space Administration Authorization Act, 1973."

NATIONAL AERONAUTICS  
AND SPACE ADMINISTRATION,  
Washington, D.C., January 26, 1972.

Hon. SPIRO T. AGNEW,  
President of the Senate,  
Washington, D.C.

DEAR MR. PRESIDENT: Submitted herewith is a draft of a bill, "To authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes," together with the sectional analysis thereof. It is submitted to the President of the Senate pursuant to Rule VII of the standing rules of the Senate.

Section 4 of the Act of June 15, 1959, 73 Stat. 73, 75 (42 U.S.C. 2460), provides that no appropriation may be made to the National Aeronautics and Space Administration unless previously authorized by legislation. It is the purpose of the enclosed bill to provide such requisite authorization in the amounts and for the purposes recommended by the President in the Budget of the United States Government for the fiscal year ending June 30, 1973. The bill would authorize appropriations totaling \$3,379,000,000 to be made to the National Aeronautics and Space Administration as follows:

(1) for "Research and Development" amounts totaling \$2,600,900,000; (2) for "Construction of facilities" amounts totaling \$77,300,000 and (3) for "Research and program management," \$700,800,000.

The enclosed draft bill follows the format of the National Aeronautics and Space Administration Authorization Act, 1972 (Public Law 92-68), except for the omission of section 7 of that Act, which section is permanent law, having amended the National Aeronautics and Space Act of 1958. However, the bill does differ in substance from the prior Act in several respects. First, subsections 1(a), 1(b) and 1(c), which would provide the authorization to appropriate for the three NASA appropriations, differ in the dollar amounts and the "Construction of facilities" projects for which authorization to appropriate is requested.

Second, subsection 1(a) contains a numerical realignment of the program line items related to the activities of the former Office of Space Science and Applications, so that all of the program line items related to the new Office of Space Science are grouped together. To this end, the program line item "Launch vehicle procurement" precedes (rather than follows, as in the prior Act) the "Space applications" program line item. This latter line item relates to the program activities of the new Office of Applications.

Third, subsection 1(b) contains two line items covering minor construction and rehabilitation and modification of facilities which relate to classes of activity (delimited as hereinafter discussed) to some extent covered within the authorizations for subsections 1(a) and 1(c) in prior years.

Fourth, subsection 1(c) omits the limitation contained in the prior year's Act on the amount available for personnel and related costs. Such limitation is deemed unnecessary for the fiscal year starting July 1, 1972.

Fifth, there are changes in statutory language related to the implementation of certain of the recommendations of the NASA Facilities Management Review Committee which I have approved. Copies of this Committee's report have previously been furnished to the respective Congressional Committees having cognizance over legislation and appropriations for NASA. The changes in statutory language consist of (1) the line items in subsection 1(b) covering limited construction and rehabilitation and modification activities, alluded to above; (2) the addition of language to subsection 1(d) clarifying that such provision relates to items of a capital nature, particularly facilities, at locations other than NASA installations; and (3) an overall revision to the language of subsection 1(g) which has the effect of restricting the use of "Research and development" and "Research and program management" funds for certain facilities purposes.

The report of the NASA Facilities Management Review Committee previously alluded to make several recommendations of a fundamental nature, each of which I have approved. As indicated above, certain limited changes to the statutory language were required to implement them; however, their main impact is to be found in a revised approach to the management of NASA's facilities activities. The NASA budget, which would be implemented by the proposed bill, is structured in accordance with such approach, the principal points of which, as related to the changes in statutory language, are as follows.

One major area dealt with by the Committee involves the method of presenting for approval facilities projects (i.e., all projects involving the acquisition of new, or the enhancement of existing, facilities consisting of real property and equipment connected therewith). All such projects comprehended within the instant proposed bill have been presented—and any other such projects proposed after the date of enactment of the NASA Authorization Act, 1973 (without regard to the fiscal year during which the funds therefor became, or become, available), will be presented—for approval and ultimate funding under a full disclosure concept. That is, all elements required for the initial stated operational use of that facility, whether construction or equipment, will be fully disclosed to the extent that each of these elements has been or can be identified and quantified and estimates prepared therefor. (To the extent that elements can be identified but not quantified, and/or meaningful estimates cannot be prepared therefor, this also will be disclosed.) However, for purposes of funding under the applicable facilities authorities, only those elements constituting actual construction trades activity (i.e., "brick and mortar"), together with collateral equipment (i.e., equipment which is an inherent part of the structure, or is built in, or is large and substantially affixed to the structure) will be considered a part of the facility project. All other equipment, while it is to be disclosed as being related to the facilities project, will, nevertheless, be funded from sources otherwise available therefor. Also, greater emphasis than has been accorded in the past will be given to identifying the funding source for all equipment.

The above concept is not directly reflected in the enclosed draft bill other than by the term "collateral equipment" in subsections 1(d) and 1(g), which would take on the redefined meaning described above. However,

the concept is followed in the NASA Budget which the enclosed draft bill would implement.

An additional recommendation of the Facilities Management Review Committee, which is also reflected in the enclosed draft bill, is that any facilities project (defined as above), the estimated cost of which at the time of approval is above a very minimal level (i.e., \$10,000 for construction of new, or additions to existing, facilities, and \$25,000 for rehabilitation or modification of facilities) will be funded from the "Construction of facilities" appropriation; provided, however, that a project required to satisfy unforeseen programmatic needs, the estimated cost of which project at the time of approval does not exceed \$250,000, will continue to be funded from the "Research and development" appropriation. Projects involving maintenance or repair of facilities will continue to be funded from the "Research and development" and "Research and program management" appropriations without a per project dollar limitation.

The implementation of this second major recommendation is evidenced (1) by subsection 1(g) of the enclosed draft bill; and (2) by the language of the three NASA appropriations as recommended by the President in the Appendix to the Budget of the United States Government, 1973. The enclosed draft bill would further provide for two line items under the "Construction of facilities" head covering (a) the construction of new, and additions to existing, facilities, the estimated cost of which (including collateral equipment) is not in excess of \$500,000 for each project at the time of approval; and (b) the rehabilitation and modification of facilities, the estimated cost of which (including collateral equipment) is not in excess of \$500,000 for each project at the time of approval. Any project for these purposes, the estimated cost of which exceeds the applicable project limitation, would be separately stated as a budget line item and justified as such.

It will be noted that under subsection 1(g), revised in accordance with the above, "Research and development" funds would continue to be legally available for facility projects, required to satisfy unforeseen programmatic needs at NASA installations and other locations, the estimated cost of which projects, including collateral equipment, does not at the time of approval exceed \$250,000. Any unforeseen requirement, the estimated cost of which exceeds the stated amount, would be funded from the "Construction of facilities" appropriation using, where necessary and appropriate, one of the statutory flexibility provisions (unless, of course, it is fundable under the provisions of subsection 1(d)).

It will also be noted that subsection 1(d) has been revised so as to clarify that the use of "Research and development" funds thereunder for items of a capital nature is limited to locations other than NASA installations, and that the reporting requirement, which is a part of such subsection, relates only to construction of a major facility in accordance with the subsection.

It will be noted further that none of the specific flexibility provisions included in prior NASA Authorization Acts has been substantively affected by any of the foregoing. It is NASA's view that such flexibility provisions are essential to NASA's dynamic and evolving research and development activity.

Where required by section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)), environmental impact statements covering NASA installations and the programs to be funded in fiscal year 1973 have been furnished to the Committee on Science and Astronautics.

The National Aeronautics and Space Administration recommends that the enclosed



bill be enacted. The Office of Management and Budget advises that such enactment would be in accord with the program of the President.

Sincerely,

JAMES C. FLETCHER,  
Administrator.

#### SECTIONAL ANALYSIS

[Of a bill to authorize appropriations to the National Aeronautics and Space Administration for research and development, construction of facilities, and research and program management, and for other purposes.]

#### SECTION 1

Subsections (a), (b), and (c) would authorize to be appropriated to the National Aeronautics and Space Administration funds, in the total amount of \$3,379,000,000, as follows: (a) for "Research and development," a total of 12 program line items aggregating the sum of \$2,600,900,000; (b) for "Construction of facilities," a total of sixteen line items aggregating the sum of \$77,300,000; and, (c) for "Research and program management," \$700,800,000.

Subsection 1(d) would authorize the use of appropriations for "Research and development" without regard to the provisions of subsection 1(g) for: (1) items of a capital nature (other than the acquisition of land) required at locations other than NASA installations for the performance of research and development contracts; and (2) grants to nonprofit institutions of higher education, or to nonprofit organizations whose primary purpose is the conduct of scientific research, for purchase or construction of additional research facilities. Title to such facilities shall be vested in the United States unless the Administrator determines that the national program of aeronautical and space activities will best be served by vesting title in any such grantee institution or organization. Moreover, each such grant shall be made under such conditions as the Administrator shall find necessary to insure that the United States will receive benefit therefrom adequate too justify the making of that grant.

In either case no funds may be used for the construction of a facility in accordance with the subsection the estimated cost of which, including collateral equipment, exceeds \$250,000, unless the Administrator notifies the Speaker of the House, the President of the Senate and the specified committees of the Congress of the nature, location, and estimated cost of such facility.

Subsection 1(e) would provide that, when so specified in an appropriation Act, (1) any amount appropriated for "Research and development" or for "Construction of facilities" may remain available without fiscal year limitation, and (2) contracts for maintenance and operation of facilities and support services may be entered into under the "Research and program management" appropriation for periods not in excess of twelve months beginning at any time during the fiscal year.

Subsection 1(f) would authorize the use of not to exceed \$35,000 of "Research and program management" appropriation funds for scientific consultations or extraordinary expenses, including representation and official entertainment expenses, upon the authority of the Administrator, whose determination shall be final and conclusive.

Subsection 1(g) would provide that of the funds appropriated for "Research and development" and "Research and program management," not in excess of \$10,000 per project (including collateral equipment) may be used for construction of new, or additions to existing facilities, and not in excess of \$25,000 per project (including collateral equipment) may be used for rehabilitation or modification of, existing facilities; however, of the funds appropriated for "Research and

development," not in excess of \$250,000 per project (including collateral equipment) may be used for construction of new facilities or additions to, or rehabilitation or modification of, existing facilities required for unforeseen programmatic needs.

Subsection 1(h) would provide that no part of the funds appropriated for "Research and development" may be used for grants to any nonprofit institution of higher learning unless the Administrator determines that recruiting personnel of any of the Armed Forces are not being barred from the premises or property of such institution. Subsection 1(h) would not apply if the Administrator determines that the grant is a continuation or renewal of a previous grant to such institution which is likely to make a significant contribution to the aeronautical and space activities of the United States. The Secretary of Defense would be required to furnish to the Administrator on the dates prescribed the names of any nonprofit institutions of high learning which the Secretary of Defense determines are barring such recruiting personnel from premises or property of any such institution.

#### SECTION 2

Section 2 would authorize the 5 per centum upward variation of any of the sums authorized for the "Construction of facilities" line items (other than facility planning and design) when, in the discretion of the Administrator, this is needed to meet unusual cost variations. However, the total cost of all work authorized under these line items may not exceed the total sum authorized for "Construction of facilities" under subsection 1(b), paragraphs (1) through (15).

#### SECTION 3

Section 3 would provide that not more than one-half of 1 per centum of the funds appropriated for "Research and development" may be transferred to the "Construction of facilities" appropriation and, when so transferred, together with \$10,000,000 of the funds appropriated for "Construction of facilities," shall be available for the construction of facilities and land acquisition at any location if (1) the Administrator determines that such action is necessary because of changes in the space program or new scientific or engineering developments, and (2) that deferral of such action until the next authorization Act is enacted would be inconsistent with the interest of the Nation in aeronautical and space activities. However, no such funds may be obligated until 30 days have passed after the Administrator or his designee has transmitted to the Speaker of the House, the President of the Senate and the specified committees of Congress a written report containing a description of the project, its cost, and the reason why such project is necessary in the national interest, or each such committee before the expiration of such 30-day period has notified the Administrator that no objection to the proposed action will be made.

#### SECTION 4

Section 4 would provide that, notwithstanding any other provision of this Act—

(1) no amount appropriated pursuant to this Act may be used for any program deleted by the Congress from requests as originally made to either the House Committee on Science and Astronautics or the Senate Committee on Aeronautical and Space Sciences;

(2) no amount appropriated pursuant to this Act may be used for any program in excess of the amount actually authorized for that particular program by subsections 1(a) and 1(c); and,

(3) no amount appropriated pursuant to this Act may be used for any program which has not been presented to or requested of either such committee,

unless (A) a period of 30 days has passed after the receipt by the Speaker of the

House, the President of the Senate and each such committee of notice given by the Administrator or his designee containing a full and complete statement of the action proposed to be taken and the facts and circumstances relied upon in support of such proposed action, or (B) each such committee before the expiration of such period has transmitted to the Administrator written notice to the effect that such committee has no objection to the proposed action.

#### SECTION 5

Section 5 would express the sense of the Congress that it is in the national interest that consideration be given to geographical distribution of Federal research funds whenever feasible and that the National Aeronautics and Space Administration should explore ways and means of distributing its research and development funds whenever feasible.

#### SECTION 6

Subsection 6(a) would provide that if an institution of higher education determines, after affording notice and opportunity for hearing to an individual attending, or employed by, such institution, that such individual has been convicted by any court of record of any crime which was committed after the date of enactment of the Act and which involved the use of (or assistance to others in the use of) force, disruption, or the seizure of property under control of any institution of higher education to prevent officials or students from engaging in their duties or pursuing their studies, and that such crime was of a serious nature and contributed to a substantial disruption of the administration of the institution, then the institution would be required to deny for a period of two years any further payment to, or for the direct benefit of, such individual under any of the programs authorized by the National Aeronautics and Space Act of 1958, the funds for which are authorized pursuant to this Act. If an institution denies an individual assistance under the authority of the first sentence of subsection 6(a), then any institution which such individual subsequently attends would be similarly required to deny for the remainder of the two-year period any further payment to, or for the direct benefit of, such individual.

Subsection 6(b) would provide that if an institution of higher education determines, after affording notice and opportunity for hearing to an individual attending, or employed by, such institution, that such individual has willfully refused to obey a lawful regulation or order of such institution after the date of enactment of the Act, and that such refusal was of a serious nature and contributed to a substantial disruption of the administration of such institution, then such institution would be required to deny, for a period of two years, any further payment to, or for the direct benefit of, such individual under any of the programs authorized by the National Aeronautics and Space Act of 1958, the funds for which are authorized pursuant to the Act.

Subsection 6(c)(1) would provide that nothing in the Act shall be construed to prohibit any institution of higher education from refusing to award, continue, or extend any financial assistance under any such Act to any individual because of any misconduct which in its judgment bears adversely on his fitness for such assistance.

Subsection 6(c)(2) would provide that nothing in section 6 shall be construed as limiting or prejudicing the rights and prerogatives of any institution of higher education to institute and carry out an independent disciplinary proceeding pursuant to existing authority, practice, and law.

Subsection 6(c)(3) would provide that nothing in section 6 shall be construed to

limit the freedom of any student to verbal expression of individual views or opinions.

#### SECTION 7

Section 7 would provide that the Act may be cited as the "National Aeronautics and Space Administration Authorization Act, 1973."

By Mr. PROXMIRE:

S. 3095. A bill to amend title II of the Interstate Commerce Act in order to exempt from certain provisions of such title motor vehicles used in carrying processed milk products. Referred to the Committee on Commerce.

#### MILK PRODUCERS AND THE INTERSTATE COMMERCE ACT

Mr. PROXMIRE. Mr. President, last October 1, I introduced legislation to clarify the confusion that has arisen under the Interstate Commerce Act as to what dairy products shipments are exempt from the act.

As I indicated at that time the shipment of buttermilk is not regulated by the act while the shipment of butter is regulated. Powdered milk is not regulated but condensed milk is regulated. I could give other examples.

Today I am reintroducing this legislation in revised form. The bill makes it very clear that processed dairy products are exempt from the act. It is an improvement over last year's proposal, S. 2635. I ask unanimous consent that it be printed in the RECORD at this point:

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 3095

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That the second proviso in section 203(b) (6) of the Interstate Commerce Act (49 U.S.C. 303(b) (6)) is amended by inserting after "shall be deemed to include" the following: "products derived from the processing of milk, cream, skim milk, or whey into dairy products and".

By Mr. BIBLE (for himself and Mr. CANNON):

S. 3096. A bill to convey to the Ely Indian Colony the beneficial interest in certain Federal land. Referred to the Committee on Interior and Insular Affairs.

Mr. BIBLE. Mr. President, on behalf of myself and my distinguished colleague, Senator CANNON, I introduce for appropriate referral a bill to convey to the Ely, Nev., Indian Colony the beneficial interest in some 90 acres of land in White Pine County, Nev., to be used for the benefit of these native Americans.

At the present time, the land available to this particular colony is less than 10 acres. This was purchased in 1930 by the United States for Indian village purposes. It was contemplated at that time that it would be occupied by some five Indian families with a population of about 30.

Today, the tribal membership is near 100 and the need for additional land and facilities is urgent if this low-income minority group is to have the advantages that have accrued to their more prosperous neighbors.

Enactment of the legislation will make sufficient land available to take care of the tribal members and also permit them

to take advantage of programs that enable these people to construct their own homes and provide sanitary facilities and living conditions that give them an opportunity to enjoy the same type of living standards that are available to most of us. I trust that early approval from the administration and favorable committee action will not be delayed.

I ask unanimous consent that resolution No. 71-E-2 of the governing body of the Ely Colony Council, dated November 12, 1971, be included as a part of my statement at this time.

There being no objection, the resolution was ordered to be printed in the RECORD, as follows:

#### RESOLUTION No. 71-E-2

Resolution of the governing body of the Ely Colony Council

Whereas, this organization is an Indian organization located in Ely, White Pine County, Nevada known as the Ely Colony Council, and

Whereas, the Ely Indians need to acquire a suitable site for housing, and commercial development to enhance their economic opportunities, and

Whereas, there exists a parcel of land south of the City of Ely described as the N $\frac{1}{2}$  NW $\frac{1}{4}$  SE $\frac{1}{4}$  and NE $\frac{1}{4}$  NE $\frac{1}{4}$  SW $\frac{1}{4}$  and NW $\frac{1}{4}$  NE $\frac{1}{4}$  SE $\frac{1}{4}$  Sec. 22, T. 16 N., R. 63 E.

Whereas, there also exists a parcel of vacant Public Domain land adjacent to the parcel above described which is the S $\frac{1}{2}$  NW $\frac{1}{4}$  SE $\frac{1}{4}$  and E $\frac{1}{2}$  NE $\frac{1}{4}$  SE $\frac{1}{4}$  and SW $\frac{1}{4}$  NE $\frac{1}{4}$  SE $\frac{1}{4}$  Sec. 22, T. 16 N., R. 63 E., embracing approximately 50 acres.

Now, therefore, be it resolved that all prior resolutions in connection with this withdrawal action are hereby rescinded.

Be it further resolved that we request the herein described lands be withdrawn for the Ely Indian Colony to be held in trust by the United States of America.

Be it further resolved that the Nevada Congressional Delegation is requested to introduce appropriate legislation that will convey this land to the Ely Indian Colony.

Be it further resolved that the Tribal Secretary is authorized to send copies of this resolution to the Nevada Congressional Delegation; the Superintendent, Nevada Indian Agency, the Inter-Tribal Council of Nevada; the Commissioner of Indian Affairs; and the Secretary of the Interior.

By Mr. BYRD of West Virginia (for Mr. JACKSON) (for himself and Mr. ALLOTT) (by request):

S. 3097. A bill to authorize appropriations for the Saline Water Conversion program for fiscal year 1973, to delete section 6(d) of the Saline Water Conversion Act, and for other purposes. Referred to the Committee on Interior and Insular Affairs.

Mr. BYRD of West Virginia. Mr. President, at the request of the distinguished Senator from Washington (Mr. JACKSON), I send to the desk for appropriate reference a bill to authorize appropriations for the saline water conversion program for fiscal year 1973, to delete section 6(d) of the Saline Water Conversion Act, and for other purposes, on behalf of the Senator from Washington (Mr. JACKSON) and the Senator from Colorado (Mr. ALLOTT).

Mr. President, this draft legislation was submitted and recommended by the Department of the Interior, and I ask unanimous consent, on behalf of Senator JACKSON, that the executive commu-

nication accompanying the proposal from the Secretary, including their insert on the President's memorandum, be printed in the RECORD at this point in my remarks.

The PRESIDING OFFICER (Mr. WEICKER). The bill will be received and appropriately referred; and, without objection, the material requested will be printed in the RECORD.

The material ordered to be printed in the RECORD is as follows:

U.S. DEPARTMENT OF THE INTERIOR,

Washington, D.C., January 24, 1972.

Hon. SPIRO T. AGNEW,  
President of the Senate,  
Washington, D.C.

DEAR MR. PRESIDENT: Enclosed is a draft of a proposed bill "To authorize appropriations for Saline Water Conversion Program for fiscal year 1973, to delete section 6(d) of the Saline Water Conversion Act of 1971, and for other purposes."

We recommend that the bill be referred to the appropriate committee for consideration, and we recommend that it be enacted.

#### FISCAL YEAR 1973 APPROPRIATION AUTHORIZATION

The legislation under which the Office of Saline Water conducts its program, the Saline Water Conversion Act of 1971 (Public Law 92-60; 85 Stat. 159), authorizes "to be appropriated such sums, to remain available until expended, as may be specified in annual appropriation authorization acts." In order to meet fiscal year 1973 program requirements, we propose an appropriation of \$26,871,000 to be authorized to conduct the desalting research and development program as follows:

- I. Research expense, \$5,850,000;
- II. Development expense, \$12,131,000;
- III. Design, construction, acquisition, modification, operation, and maintenance of saline water conversion test beds and test facilities, \$5,085,000;
- IV. Design, construction, acquisition, modification, operation, and maintenance of saline water conversion modules, \$1,075,000; and
- V. Administration and coordination, \$2,730,000.

The amount appropriated for FY 1972 included \$2,500,000 for the construction of two test beds (\$2,100,000) and for modifications to test beds (\$400,000). Since these are non-recurring items, the amount requested for FY 1973 represents an increase of \$2,443,713 over the FY 1972 net program. This increase also includes funds to cover first-year costs of projects initiated during FY 1972 such as operation of the two net test beds, the Fountain Valley Test Facility, and VTE/MSF Module Operation.

Major changes in each of these categories from the fiscal year 1972 program of \$26,927,287 are described as follows:

Research expense shows an increase of \$415,000. Increases are required to conduct an intensive research program on sea water membranes, geothermal brines, heat transfer and materials, and new freezing processes.

Development expense contains a net increase of \$1,958,513. The increase in this program includes construction of a new process freezing pilot plant, development of sea water and brackish water reverse osmosis systems, operation of reverse osmosis and distillation pilot plants, and test components being constructed during FY 1972. Funds are also provided for development work on desalting geothermal waters. Preliminary desalting investigations and cooperative studies will continue.

Design, construction, acquisition, modification, operation, and maintenance of saline water conversion test beds and test facilities reflects a decrease of \$2,209,800. For FY 1972 this category included authorization for two



reverse osmosis test beds and modifications to existing plants amounting to \$2,500,000, which is not included in the category this year. But increases for the category are shown for first-year operation of the two reverse osmosis test beds, increased maintenance and operating cost, and modernization of facilities that have been operating for as long as 9 years without being updated to modern technology.

Design, construction, acquisition, modification, operation, and maintenance of saline water conversion modules is decreased by \$340,000 due to reductions in the operating requirements of the multistage flash distillation module.

Administration and coordination shows an increase of \$120,000. No additional positions are requested. Additional funds are requested to cover cost of increased man-years of employment in positions previously authorized.

**Environmental effects**—The program that will be carried out under Public Law 92-60 during FY 1973 will not have significant environmental effects beyond those described in the environmental statement submitted with this Department's proposed legislation "To expand and extend the desalting program being conducted by the Secretary of the Interior" forwarded to the Congress by executive communication dated April 1, 1971. Such legislation is substantially in accord with P.L. 92-60. Should future actions under this program involve significant environmental effects are not previously covered by an environmental impact statement prepared under section 102(2)(C) of the National Environmental Policy Act of 1969, such a statement will be prepared and circulated in accordance with the Act's requirements.

**Deletion of section 6(d) of the Saline Water Conversion Act of 1971**

In addition to authorizing FY 1973 appropriations, the proposed bill would delete section 6(d) of the Saline Water Conversion Act of 1971 under which the OSW program is carried on. Section 6(d) provides:

(d) All research within the United States contracted for, sponsored, cosponsored, or authorized under authority of this Act, shall be provided for in such manner that all information, uses, products, processes, patents, and other developments resulting from such research developed by Government expenditure will (with such exceptions and limitations, if any, as the Secretary may find to be necessary in the interest of national defense) be available to the general public. This subsection shall not be so construed as to deprive the owner of any background patent relating thereto of such rights as he may have thereunder. Within six months of the date of this Act, the Secretary shall publish rules in the Federal Register to give effect to the provisions of this subsection and shall subsequently publish all revisions in the same manner.

The effect of deleting this provision from the Act would be to bring "information, uses, products, processes, patents and other developments resulting from . . . research developed by Government expenditure" in the Saline Water Conversion Program under general Federal policy. For inventions and discoveries made under Government sponsored grants and contracts, Federal policy is currently embodied in a Presidential Memorandum of August 23, 1971, dealing with Government Patent Policy (36 FR 16887-16892), a copy of which is attached hereto. This policy applies "subject to specific statutes governing the disposition of patent rights of certain Government agencies" such as section 6(d) of the Act.

In the opinion of the Solicitor's Office of this Department, section 6(d) precludes the application of general Federal policy and inventions and discoveries developed under the Saline Water Conversion Program must be made "available to the public" on a royalty-free, nonexclusive basis. Situations

have, however, arisen in the program where we believe the public interest would best be served through a grant of patent rights to contractors and others as provided for by the general Federal policy memorandum. In such circumstances, granting greater rights to inventions and discoveries may result in their more rapid development in accordance with the public interest. The Presidential Memorandum provides appropriate guidelines, desirable flexibility and consistent treatment for the use of information developed under Federal sponsorship and we believe it is superior to the present provisions of section 6(d).

The Office of Management and Budget has advised that this proposed legislation is in accord with the program of the President.

Sincerely yours,

JAMES R. SMITH,  
Assistant Secretary of the Interior.

**TITLE 3—THE PRESIDENT: MEMORANDUM OF AUGUST 23, 1971, GOVERNMENT PATENT POLICY**  
MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

THE WHITE HOUSE,  
Washington, August 23, 1971.

On October 10, 1963, President Kennedy forwarded to the Heads of Executive Departments and Agencies a Memorandum and Statement of Government Patent Policy for their guidance in determining the disposition of rights to inventions made under Government-sponsored grants and contracts. On the basis of the knowledge and experience then available, this Statement first established Government-wide objectives and criteria, within existing legislative constraints, for the allocation of rights to inventions between the Government and its contractors.

It was recognized that actual experience under the Policy could indicate the need for revision or modification. Accordingly, a Patent Advisory Panel was established under the Federal Council for Science and Technology for the purpose of assisting the agencies in implementing the Policy, acquiring data on the agencies' operations under the Policy, and making recommendations regarding the utilization of Government owned patents. In December 1965, the Federal Council established the Committee on Government Patent Policy to assess how this Policy was working in practice, and to acquire and analyze additional information that could contribute to the reaffirmation or modification of the Policy.

The efforts of both the Committee and the Panel have provided increased knowledge of the effects of Government patent policy on the public interest. More specifically, the studies and experience over the past 7 years have indicated that:

(a) A single presumption of ownership of patent rights to Government-sponsored inventions either in the Government or in its contractors is not a satisfactory basis for Government patent policy, and that a flexible, Government-wide policy best serves the public interest;

(b) The commercial utilization of Government-sponsored inventions, the participation of industry in Government research and development programs, and commercial competition can be influenced by the following factors: the mission of the contracting agency; the purpose and nature of the contract; the commercial applicability and market potential of the invention; the extent to which the invention is developed by the contracting agency; the promotional activities of the contracting agency; the commercial orientation of the contractor and the extent of his privately financed research in the related technology; and the size, nature and research orientation of the pertinent industry;

(c) In general, the above factors are re-

flected in the basic principles of the 1963 Presidential Policy Statement.

Based on the results of the studies and experience gained under the 1963 Policy Statement certain improvements in the Policy have been recommended which would provide (1) agency heads with additional authority to permit contractors to obtain greater rights to inventions where necessary to achieve utilization or where equitable circumstances would justify such allocation of rights, (2) additional guidance to the agencies in promoting the utilization of Government-sponsored inventions, (3) clarification of the rights of States and municipal governments in inventions in which the Federal Government acquires a license, and (4) a more definitive data base for evaluating the administration and effectiveness of the Policy and the feasibility and desirability of further refinement or modification of the Policy.

I have approved the above recommendations and have attached a revised Statement of Government Patent Policy for your guidance. As with the 1963 Policy Statement, the Federal Council shall make a continuing effort to record, monitor and evaluate the effects of this Policy Statement. A Committee on Government Patent Policy, operating under the aegis of the Federal Council for Science and Technology, shall assist the Federal Council in these matters.

This memorandum and statement of policy shall be published in the FEDERAL REGISTER.  
RICHARD NIXON.

**STATEMENT OF GOVERNMENT PATENT POLICY—BASIC CONSIDERATIONS**

A. The Government expends large sums for the conduct of research and development which results in a considerable number of inventions and discoveries.

B. The inventions in scientific and technological fields resulting from work performed under Government contracts constitute a valuable national resource.

C. The use and practice of these inventions and discoveries should stimulate inventors, meet the needs of the Government, recognize the equities of the contractor, and serve the public interest.

D. The public interest in a dynamic and efficient economy requires that efforts be made to encourage the expeditious development and civilian use of these inventions. Both the need for incentives to draw forth private initiatives to this end, and the need to promote healthy competition in industry must be weighed in the disposition of patent rights under Government contracts. Where exclusive rights are acquired by the contractor, he remains subject to the provisions of the antitrust laws.

E. The public interest is also served by sharing of benefits of Government-financed research and development with foreign countries to a degree consistent with international programs and with the objectives of U.S. foreign policy.

F. There is growing importance attaching to the acquisition of foreign patent rights in furtherance of the interests of U.S. industry and the Government.

G. The prudent administration of Government research and development calls for a Government-wide policy on the disposition of inventions made under Government contracts reflecting common principles and objectives, to the extent consistent with the missions of the respective agencies. The policy must recognize the need for flexibility to accommodate special situations.

**POLICY**

**SECTION 1.** The following basic policy is established for all Government agencies with respect to inventions or discoveries made in the course of or under any contract of any Government agency, subject to specific statutes governing the disposition of patent rights of certain Government agencies.

## (a) Where

(1) a principal purpose of the contract is to create, develop or improve products, processes, or methods which are intended for commercial use (or which are otherwise intended to be made available for use) by the general public at home or abroad, or which will be required for such use by governmental regulations; or

(2) a principal purpose of the contract is for exploration into fields which directly concern the public health, public safety, or public welfare; or

(3) the contract is in a field of science or technology in which there has been little significant experience outside of work funded by the Government, or where the Government has been the principal developer of the field, and the acquisition of exclusive rights at the time of contracting might confer on the contractor a preferred or dominant position; or

## THE PRESIDENT

## (4) the services of the contractor are

(i) for the operation of a Government-owned research or production facility; or

(ii) for coordinating and directing the work of others, the Government shall normally acquire or reserve the right to acquire the principal or exclusive rights throughout the world in and to any invention made in the course of or under the contract.

In exceptional circumstances the contractor may acquire greater rights than a non-exclusive license at the time of contracting where the head of the department or agency certifies that such action will best serve the public interest. Greater rights may also be acquired by the contractor after the invention has been identified where the head of the department or agency determines that the acquisition of such greater rights is consistent with the intent of this Section 1(a) and is either a necessary incentive to call forth private risk capital and expense to bring the invention to the point of practical application or that the Government's contribution to the invention is small compared to that of the contractor. Where an identified invention made in the course of or under the contract is not a primary object of the contract, greater rights may also be acquired by the contractor under the criteria of section 1(c).

(b) In other situations, where the purpose of the contract is to build upon existing knowledge or technology, to develop information, products, processes, or methods for use by the Government, and the work called for by the contract is in a field of technology in which the contractor has acquired technical competence (demonstrated by factors such as know-how, experience, and patent position) directly related to an area in which the contractor has an established nongovernmental commercial position, the contractor shall normally acquire the principal or exclusive rights throughout the world in and to any resulting inventions.

(c) Where the commercial interests of the contractor are not sufficiently established to be covered by the criteria specified in Section 1(b) above, the determination of rights shall be made by the agency after the invention has been identified, in a manner deemed most likely to serve the public interest as expressed in this policy statement, taking particularly into account the intentions of the contractor to bring the invention to the point of commercial application and the guidelines of Section 1(a) hereof, provided that the agency may prescribe by regulation special situations where the public interest in the availability of the inventions would best be served by permitting the contractor to acquire at the time of contracting greater rights than a nonexclusive license.

(d) In the situations specified in Sections 1(b) and 1(c), when two or more potential contractors are judged to have presented

proposals of equivalent merit, willingness to grant the Government principal or exclusive rights in resulting inventions will be an additional factor in the evaluation of the proposals.

(e) Where the principal or exclusive rights in an invention remain in the contractor, he should agree to provide written reports at reasonable intervals, when requested by the Government, on the commercial use that is being made or is intended to be made of inventions made under Government contracts.

(f) Where the principal or exclusive rights in an invention remain in the contractor, unless the contractor, his licensee, or his assignee has taken effective steps within three years after a patent issues on the invention to bring the invention to the point of practical application or has made the invention available for licensing royalty-free or on terms that are reasonable in the circumstances or can show cause why he should retain the principal or exclusive rights for a further period of time, the Government shall have the right to require the granting of a nonexclusive or exclusive license to a responsible applicant(s) on terms that are reasonable under the circumstances.

(g) Where the principal or exclusive rights to an invention are acquired by the contractor, the Government shall have the right to require the granting of a nonexclusive or exclusive license to a responsible applicant(s) on terms that are reasonable in the circumstances (i) to the extent that the invention is required for public use by governmental regulations, or (ii) as may be necessary to fulfill health or safety needs, or (iii) for other public purposes stipulated in the contract.

(h) Whenever the principal or exclusive rights in an invention remain in the contractor, the Government shall normally acquire, in addition to the rights set forth in Sections 1(e), 1(f), and 1(g),

(1) at least a nonexclusive, nontransferable, paid-up license to make; use, and sell the invention throughout the world by or on behalf of the Government of the United States (including any Government agency) and States and domestic municipal governments, unless the agency head determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments; and

(2) the right to sublicense any foreign government pursuant to any existing or future treaty or agreement if the agency head determines it would be in the national interest to acquire this right; and

(3) the principal or exclusive rights to the invention in any country in which the contractor does not elect to secure a patent.

(i) Whenever the principal or exclusive rights in an invention are acquired by the Government, there may be reserved to the contractor a revocable or irrevocable non-exclusive royalty-free license for the practice of the invention throughout the world; an agency may reserve the right to revoke such license so that it might grant an exclusive license when it determines that some degree of exclusivity may be necessary to encourage further development and commercialization of the invention. Where the Government has a right to acquire the principal or exclusive rights to an invention and does not elect to secure a patent in a foreign country, the Government may permit the contractor to acquire such rights in any foreign country in which he elects to secure a patent, subject to the Government's rights set forth in Section 1(h).

SEC. 2. Under regulations prescribed by the Administrator of General Services, Government-owned patents shall be made available and the technological advances covered thereby brought into being in the shortest time possible through dedication or licens-

ing, either exclusive or nonexclusive, and shall be listed in official Government publications or otherwise.

SEC. 3. The Federal Council for Science and Technology in consultation with the Department of Justice shall prepare at least annually a report concerning the effectiveness of this policy, including recommendations for revision or modification as necessary in light of the practices and determinations of the agencies in the disposition of patent rights under their contracts. The Federal Council for Science and Technology shall continue to

(a) develop by mutual consultation and coordination with the agencies common guidelines for the implementation of this policy, consistent with existing statutes, and to provide overall guidance as to disposition of inventions and patents in which the Government has any right or interest; and

(b) acquire data from the Government agencies on the disposition of patent rights to inventions resulting from federally financed research and development and on the use and practice of such inventions to serve as bases for policy review and development; and

(c) make recommendations for advancing the use and exploitation of Government-owned, domestic and foreign patents.

Each agency shall record the basis for its actions with respect to inventions and appropriate contracts under this statement.

SEC. 4. Definitions: As used in this policy statement, the stated terms in singular and plural are defined as follows for the purposes hereof:

(a) *Government agency*—includes any executive department, independent commission, board, office, agency, administration, authority, Government corporation, or other Government establishment of the executive branch of the Government of the United States of America.

(b) *States*—means the States of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam and the Trust Territory of the Pacific Islands.

(c) *Invention, or invention or discovery*—includes any art, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plant, which is or may be patentable under the Patent Laws of the United States of America or any foreign country.

(d) *Contractor*—means any individual, partnership, public or private corporation, association, institution, or other entity which is a party to the contract.

(e) *Contract*—means any actual or proposed contract, agreement, grant, or other arrangement, or subcontract entered into with or for the benefit of the Government where a purpose of the contract is the conduct of experimental, developmental, or research work.

(f) *Made*—when used in relation to any invention or discovery means the conception or first actual reduction to practice of such invention in the course or under the contract.

(g) *To the point of practical application*—means to manufacture in the case of a composition or product, to practice in the case of a process, or to operate in the case of a machine and under such conditions as to establish that the invention is being worked and that its benefits are reasonably accessible to the public.

## ADDITIONAL COSPONSORS OF BILLS AND JOINT RESOLUTIONS

S. 1615

At the request of Mr. BIBLE, the Senator from Pennsylvania (Mr. SCHWEIKER) was added as a cosponsor of S. 1615, a bill to amend the Internal Revenue Code of 1954 to provide income tax simpli-



fications, reform, and relief for small business.

S. 1637

At the request of Mr. METCALF, the Senator from Michigan (Mr. HART) was added as a cosponsor of S. 1637, a bill to establish uniform standards and procedures for Government advisory committees.

S. 1964

At the request of Mr. ROTH, the Senator from Michigan (Mr. HART) was added as a cosponsor of S. 1964, a bill to authorize the Office of Management and Budget to establish a system governing the creation and operation of advisory committees throughout the Federal Government which are created to advise officers and agencies of the Federal Government.

S. 2895

At the request of Mr. TALMADGE, the Senator from Mississippi (Mr. EASTLAND) and the Senator from South Dakota (Mr. McGOVERN) were added as cosponsors of S. 2895, a bill to enable producers of commercial eggs to consistently provide an adequate but not excessive supply of eggs to meet the needs of consumers for eggs and to stabilize, maintain, and develop orderly marketing conditions for eggs at prices reasonable to the consumers and producers.

S. 2981

At the request of Mr. AIKEN, the Senator from Maryland (Mr. BEALL), the Senator from Idaho (Mr. CHURCH), the Senator from Hawaii (Mr. FONG), the Senator from Michigan (Mr. HART), the Senator from Colorado (Mr. DOMINICK), the Senator from Hawaii (Mr. INOUE), the Senator from South Carolina (Mr. HOLLINGS), the Senator from Maine (Mrs. SMITH), the Senator from Pennsylvania (Mr. SCOTT), the Senator from New Hampshire (Mr. MCINTYRE), the Senators from Iowa (Mr. MILLER and Mr. HUGHES), the Senator from Minnesota (Mr. MONDALE), and the Senator from Utah (Mr. MOSS), were added as cosponsors of S. 2981, a bill to provide for environmental improvement in rural America.

S. 3056

At the request of Mr. DOMINICK, the Senator from Colorado (Mr. ALLOTT), the Senators from Tennessee (Mr. BAKER and Mr. BROCK), the Senator from Nebraska (Mr. HRUSKA), and the Senator from Wyoming (Mr. HANSEN) were added as cosponsors of S. 3056, a bill to amend Public Law 92-178, the Revenue Act of 1971.

#### SENATE JOINT RESOLUTION 180

At the request of Mr. ROTH, the Senator from Pennsylvania (Mr. SCOTT) was added as a cosponsor of Senate Joint Resolution 180, to authorize the President to issue annually a proclamation designating the month of May in each year as "National Arthritis Month."

#### SENATE RESOLUTION 247—SUBMISSION OF A RESOLUTION AUTHORIZING EXPENDITURES BY THE SELECT COMMITTEE ON EQUAL EDUCATIONAL OPPORTUNITY

(Referred to the Committee on Rules and Administration, by unanimous consent.)

Mr. MONDALE. Mr. President, I send to the desk a resolution authorizing expenditures by the Select Committee on Equal Educational Opportunity. The resolution has been agreed to unanimously by the Select Committee.

Under usual procedures of the Senate, this resolution would be referred first to the Committee on Labor and Public Welfare and then to the Committee on Rules and Administration. I have spoken with the chairman of the Labor and Public Welfare Committee (Mr. WILLIAMS) and ranking minority member, Senator JAVITS, and with their agreement I ask unanimous consent that the resolution be referred to the Committee on Rules and Administration.

The PRESIDENT pro tempore. Without objection, it is so ordered.

The resolution is as follows:

#### S. RES. 247

*Resolved*, That (a) in studying the effectiveness of existing laws and policies in assuring equality of educational opportunity in accordance with Senate Resolution 359, Ninety-first Congress, agreed to February 19, 1970, as amended and supplemented, the Select Committee on Equal Educational Opportunity is authorized from March 1, 1972, through May 31, 1972, in its discretion (1) to make expenditures from the contingent fund of the Senate, (2) to employ personnel, (3) to subpoena witnesses and documents, (4) with the prior consent of the Government department or agency concerned and the Committee on Rules and Administration, to use on a reimbursable basis the services of personnel, information, and facilities of any department or agency, (5) to interview employees of the Federal, State and local governments and other individuals, and (6) to take depositions and other testimony.

(b) The minority shall receive fair consideration in the appointment of staff personnel pursuant to this resolution. Personnel assigned to the minority shall be accorded equitable treatment with respect to the fixing of salary rates, the assignment of facilities, and the accessibility of committee records.

Sec. 2. The expenses of the committee under this resolution shall not exceed \$104,000.

Sec. 3. The committee shall make the final report required by such Senate Resolution 359, together with such recommendations as it deems advisable, at the earliest practicable date, but not later than May 31, 1972.

Sec. 4. Expenses of the committee under this resolution shall be paid from the contingent fund of the Senate upon vouchers approved by the chairman of the committee.

#### SENATE RESOLUTION 248—ORIGINAL RESOLUTION REPORTED AUTHORIZING ADDITIONAL EXPENDITURES BY THE COMMITTEE ON POST OFFICE AND CIVIL SERVICE

(Referred to the Committee on Rules and Administration.)

Mr. McGEE, from the Committee on Post Office and Civil Service, reported the following resolution:

#### SENATE RESOLUTION 248

*Resolved*, That in holding hearings, reporting such hearings, and making investigations as authorized by sections 134(a) and 136 of the Legislative Reorganization Act of 1946, as amended, in accordance with its jurisdiction under rule XXV of the Standing Rules of the Senate, the Committee on Post Office and Civil Service, (or any subcommittee thereof), is authorized from March 1, 1972, through February 28, 1973, in its discretion (1) to make expenditures from the contingent fund of the Senate, (2) to employ personnel, and

(3) with the prior consent of the Government department or agency concerned and the Committee on Rules and Administration, to use on a reimbursable basis the services of personnel of any such department or agency.

Sec. 2. The expenses of the committee under this resolution shall not exceed \$250,000.

Sec. 3. The committee shall report its findings, together with such recommendations for legislation as it deems advisable, to the Senate at the earliest practicable date, but not later than February 28, 1973.

Sec. 4. Expenses of the committee under this resolution shall be paid from the contingent fund of the Senate upon vouchers approved by the chairman of the committee.

#### SENATE RESOLUTION 249—ORIGINAL RESOLUTION AUTHORIZING ADDITIONAL EXPENDITURES BY THE COMMITTEE ON PUBLIC WORKS

(Referred to the Committee on Rules and Administration.)

Mr. RANDOLPH, from the Committee on Public Works, reported the following resolution:

#### S. RES. 249

*Resolved*, That, in holding hearings, reporting such hearings, and making investigations as authorized by sections 134(a) and 136 of the Legislative Reorganization Act of 1946, as amended, in accordance with its jurisdiction under rule XXV of the Standing Rules of the Senate, the Committee on Public Works, or any subcommittee thereof, is authorized from March 1, 1972, through February 28, 1973, in its discretion (1) to make expenditures from the contingent fund of the Senate, (2) to employ personnel, and (3) with prior consent of the Government department or agency concerned, and the Committee on Rules and Administration to use on a reimbursable basis the services of personnel of any such department or agency.

Sec. 2. The expenses of the committee under this resolution shall not exceed \$685,000,000 of which amount not to exceed \$17,500,000 shall be available for the procurement of the services of individual consultants, or organizations thereof (as authorized by section 202(1) of the Legislative Reorganization Act of 1946, as amended).

Sec. 3. The committee shall report its findings, together with such recommendations for legislation as it deems advisable, to the Senate at the earliest practicable date, but not later than February 28, 1973.

Sec. 4. Expenses of the committee under this resolution shall be paid from the contingent fund of the Senate upon vouchers approved by the chairman of the committee.

#### SENATE RESOLUTION 250—SUBMISSION OF A RESOLUTION AUTHORIZING ADDITIONAL EXPENDITURES BY THE SELECT COMMITTEE ON SMALL BUSINESS

(Referred to the Committee on Rules and Administration, by unanimous consent.)

Mr. BIBLE. Mr. President, I submit for myself, and the Senator from New York (Mr. JAVITS) a resolution authorizing additional expenditures by the Select Committee on Small Business and ask unanimous consent that it be referred to the Committee on Rules and Administration.

The PRESIDING OFFICER (Mr. WEICKER). Without objection, it is so ordered.

The resolution is as follows:

## S. RES. 250

*Resolved*, That the Select Committee on Small Business, in carrying out the duties imposed upon it by S. Res. 58, Eighty-first Congress, agreed to February 20, 1950, as amended and supplemented, is authorized to examine, investigate, and make a complete study of the problems of American small and independent business and to make recommendations concerning those problems to the appropriate legislative committees of the Senate.

SEC. 2. For purposes of this resolution, the committee, or any subcommittee thereof, is authorized from March 1, 1972, through February 28, 1973, in its discretion (1) to make expenditures from the contingent fund of the Senate, (2) to employ personnel, (3) with the prior consent of the Government department or agency concerned and the Committee on Rules and Administration, to use on a reimbursable basis the services of personnel of any such department or agency, (4) to procure the temporary services (not in excess of one year) or intermittent services of individual consultants, or organizations thereof, in the same manner and under the same conditions as a standing committee of the Senate may procure such services under section 202(1) of the Legislative Reorganization Act of 1946, and (5) to provide assistance for the members of its professional staff in obtaining specialized training, in the same manner and under the same conditions as any such standing committee may provide that assistance under section 202(j) of such Act.

SEC. 3. The expenses of the committee under this resolution shall not exceed \$158,000, of which amount (1) not to exceed \$500 shall be available for the procurement of the services of individual consultants, or organizations thereof, and (2) not to exceed \$1,000 shall be available for the training of the professional staff of such committee.

SEC. 4. The committee shall report its findings, together with such recommendations for legislation as it deems advisable, to the Senate at the earliest practicable date.

SEC. 5. Expenses of the committee under this resolution shall be paid from the contingent fund of the Senate upon vouchers approved by the chairman of the committee.

#### SENATE RESOLUTION 251—SUBMISSION OF A RESOLUTION AUTHORIZING ADDITIONAL EXPENDITURES BY THE SPECIAL COMMITTEE ON AGING

(Referred to the Committee on Rules and Administration, by unanimous consent.)

MR. CHURCH. Mr. President, I submit a resolution authorizing additional expenditures for the Special Committee on Aging. I ask unanimous consent that the resolution be referred to the Committee on Rules and Administration.

THE PRESIDING OFFICER. Without objection, it is so ordered.

The resolution is as follows:

## S. RES. 251

*Resolved*, That the Special Committee on Aging, established by Senate Resolution 33, Eighty-seventh Congress, agreed to on February 13, 1961, as amended and supplemented, is hereby extended through February 28, 1973.

SEC. 2. (a) The committee shall make a full and complete study and investigation of any and all matters pertaining to problems and opportunities of older people, including but not limited to, problems and opportunities of maintaining health, of assuring adequate income, of finding employment, of engaging in productive and rewarding activity,

of securing proper housing and, when necessary, of obtaining care or assistance. No proposed legislation shall be referred to such committee, and such committee shall not have power to report by bill, or otherwise have legislative jurisdiction.

(b) A majority of the members of the committee or any subcommittee thereof shall constitute a quorum for the transaction of business, except that a lesser number, to be fixed by the committee, shall constitute a quorum for the purpose of taking sworn testimony.

SEC. 3 (a) For purposes of this resolution, the committee is authorized from March 1, 1972, through February 28, 1973, in its discretion (1) to make expenditures from the contingent fund of the Senate, (2) to hold hearings, (3) to sit and act at any time or place during the sessions, recesses, and adjournment periods of the Senate, (4) to require by subpoena or otherwise the attendance of witnesses and the production of correspondence, books, papers, and documents, (5) to administer oaths, (6) to take testimony orally or by deposition, (7) to employ personnel, (8) with the prior consent of the Government department or agency concerned and the Committee on Rules and Administration, to use on a reimbursable basis the services of personnel, information, and facilities of any such department or agency, and (9) to procure the temporary services (not in excess of one year) or intermittent services of individual consultants, or organizations thereof, in the same manner and under the same conditions as a standing committee of the Senate may procure such services under section 202(1) of the Legislative Reorganization Act of 1946.

(b) The minority shall receive fair consideration in the appointment of staff personnel pursuant to this resolution. Such personnel assigned to the minority shall be accorded equitable treatment with respect to the fixing of salary rates, the assignment of facilities, and the accessibility of committee records.

SEC. 4. The expenses of the committee under this resolution shall not exceed \$375,000, of which amount not to exceed \$15,000 shall be available for the procurement of the services of individual consultants or organizations thereof.

SEC. 5. The committee shall report the results of its study and investigation, together with such recommendations as it may deem advisable, to the Senate at the earliest practicable date, but not later than February 28, 1973. The committee shall cease to exist at the close of business on February 28, 1973.

SEC. 6. Expenses of the committee under this resolution shall be paid from the contingent fund of the Senate upon vouchers approved by the chairman of the committee.

#### SENATE RESOLUTION 252 AND SENATE RESOLUTION 253—ORIGINAL RESOLUTIONS REPORTED RELATING TO EXPENDITURES BY COMMITTEE ON ARMED SERVICES

(Referred to the Committee on Rules and Administration.)

MR. STENNIS. Mr. President, I report two resolutions from the Committee on Armed Services.

One resolution authorizes expenditures in the amount of \$25,000 for the full committee during the second session for routine purposes.

The other resolution authorizes expenditures in the amount of \$455,000 for the purpose of preparedness inquiries and investigations during the second session.

THE PRESIDING OFFICER. The resolutions will be appropriately referred.

The resolutions are as follows:

## S. RES. 252

*Resolved*, That the Committee on Armed Services is authorized to expend from the contingent fund of the Senate, during the 92d Congress, second session, \$25,000 in addition to the amount, and for the same purposes, specified in section 134(a) of the Legislative Reorganization Act of 1946.

## S. RES. 253

Resolution authorizing additional expenditures by the Committee on Armed Services for inquiries and investigations

*Resolved*, That, in holding hearings, reporting such hearings, and making investigations as authorized by section 134(a) and 136 of the Legislative Reorganization Act of 1946, as amended, in accordance with its jurisdiction under rule XXV of the Standing Rules of the Senate, the Committee on Armed Services, or any subcommittee thereof, is authorized from March 1, 1972, through February 28, 1973, in its discretion (1) to make expenditures from the contingent fund of the Senate, (2) to employ personnel, (3) with the prior consent of the Government department or agency concerned and the Committee on Rules and Administration, to use on a reimbursable basis the services of personnel of any such department or agency, and (4) to examine, investigate, and make a complete study of any and all matters pertaining to—

- (1) common defense generally;
- (2) the Department of Defense, the Department of the Army, the Department of the Navy, and the Department of the Air Force generally;
- (3) soldiers' and sailors' homes;
- (4) pay, promotion, retirement, and other benefits and privileges of members of the Armed Forces;
- (5) selective service;
- (6) size and composition of the Army, Navy, and Air Force;
- (7) forts, arsenals, military reservations, and navy yards;
- (8) ammunition depots;
- (9) maintenance and operation of the Panama Canal, including the administration, sanitation, and government of the Canal Zone;
- (10) conservation, development, and use of naval petroleum and oil shale reserves;
- (11) strategic and critical materials necessary for the common defense; and
- (12) aeronautical and space activities peculiar to or primarily associated with the development of weapons systems or military operations.

SEC. 2. The expenses of the committee under this resolution shall not exceed \$455,000, of which amount not to exceed \$30,000 shall be available for the procurement of the services of individual consultants, or organizations thereof (as authorized by section 202(1) of the Legislative Reorganization Act of 1946, as amended).

SEC. 3. The committee shall report its findings, together with such recommendations for legislation as it deems advisable, to the Senate at the earliest practicable date, but not later than February 28, 1973.

SEC. 4. Expenses of the committee under this resolution shall be paid from the contingent funds of the Senate upon vouchers approved by the chairman of the committee.

#### SENATE RESOLUTION 254—RESOLUTION SUBMITTED AUTHORIZING PRINTING OF ADDITIONAL COPIES OF COMMITTEE PRINT

(Referred to the Committee on Rules and Administration.)



Mr. McCLELLAN submitted the following resolution:

S. RES. 254

*Resolved*, That there be printed for the use of the Committee on Government Operations ten thousand additional copies of the committee print entitled "International Negotiation—The Impact of the Changing Power Balance," issued by that committee during the Ninety-second Congress, first session.

#### ADDITIONAL COSPONSORS OF A RESOLUTION

SENATE RESOLUTION 232

At the request of Mr. CHILES, the Senator from South Carolina (Mr. HOLLINGS), the Senator from Alaska (Mr. GRAVEL), the Senator from Wisconsin (Mr. PROXMIRE), the Senator from Washington (Mr. JACKSON), the Senator from Utah (Mr. MOSS), and the Senator from Wisconsin (Mr. NELSON), were added as cosponsors of Senate Resolution 232, expressing the sense of the Senate that the remainder of the amount appropriated for the rural electrification program for fiscal 1972 be immediately released by the Office of Management and Budget.

#### AGREEMENTS WITH PORTUGAL OR BAHRAIN FOR MILITARY BASES OR FOREIGN ASSISTANCE—AMENDMENT

AMENDMENT NO. 847

(Ordered to be printed and referred to the Committee on Foreign Relations.)

Mr. CASE, Mr. President, I submit an amendment in the nature of a substitute for Senate Resolution 214, introduced by me on December 16, 1971. As amended, it would read as follows:

S. RES. 214

Whereas the Constitution states that the President of the United States must have the advice and consent of the Senate in order to make treaties;

Whereas an agreement with Portugal, which would provide for the stationing of American troops overseas and which would furnish Portugal with large amounts of foreign aid, is clearly a matter of sufficient importance to necessitate its submission to the Senate as a treaty;

Whereas an agreement with Bahrain, which would provide for the establishment of a new American military base on foreign territory and the stationing of American troops overseas, is clearly a matter of sufficient importance to necessitate its submission to the Senate as a treaty; Be it

*Resolved by the Senate*, that any agreement with Portugal or Bahrain for military bases or foreign assistance should be submitted as a treaty to the Senate for advice and consent.

I also ask unanimous consent that the following Senators be listed as cosponsors of Senate Resolution 214: Senators BAYH, BENTSEN, BROOKE, BURDICK, CHURCH, COOPER, CRANSTON, EAGLETON, FULBRIGHT, GRAVEL, HARRIS, HART, HUGHES, HUMPHREY, JAVITS, KENNEDY, MCGOVERN, MONDALE, MOSS, MUSKIE, NELSON, PACKWOOD, PROXMIRE, SYMINGTON, TUNNEY, WEICKER, and WILLIAMS.

Finally, Mr. President, I ask unanimous consent that the statement I made

on January 6, 1972, on this question be included in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

#### SENATOR CASE'S STATEMENT ON THE BAHRAIN NAVAL BASE AGREEMENT

It is extremely disturbing that without seeking the advice and consent of the Senate, the United States already has entered into an "unpublicized" agreement to establish a naval base on the island of Bahrain in the Persian Gulf.

It is contrary to our Constitution to settle such a matter with the stroke of a diplomat's pen.

The framers of the Constitution wrote in the requirement for advice and consent of the Senate on treaties as an integral part of our system of checks and balances.

Despite a State Department spokesman's statement that "all we are doing is changing landlords," the establishment of an American base in a foreign country is a very serious matter.

The stationing of American troops overseas can lead to war. Explicitly or implicitly, it may involve the United States on a commitment toward the host country. In the Persian Gulf area, it could potentially entangle us in the bitter dispute raging among Iran, Iraq, Saudi Arabia, and several other states on which countries have rights to what territories. The recent Iranian occupation of islands in the Persian Gulf only points up the volatility of that part of the world. Moreover, could this agreement with Bahrain be just one step in the assumption by the U. S. of responsibility for defense of the Persian Gulf as well as the adjacent sea lanes of the Indian Ocean?

Before such an agreement is entered into, these and other questions should be thoroughly aired and the intentions of our Government with respect to these issues should be ascertained.

The Bahrain agreement comes on the heels of last month's pact with Portugal for military bases in the Azores. At that time we learned that the Administration intended to give the Portuguese \$435 million in economic assistance and credits in return for continued use by the United States of air and naval bases in the Azores. The Administration made it clear that it did not intend to submit the Portuguese pact to the Senate as a treaty but instead intended to handle the whole affair as an executive agreement.

Now again, the Administration's apparent intention is to use the device of an executive agreement, as opposed to a treaty, to establish permanent base facilities in Bahrain.

In the Portuguese case, the Administration maintains that an executive agreement sufficed for renewing U. S. base rights, since the American presence in the Azores had originally been established by executive agreements. I do not accept this argument myself, for I believe it to be constitutionally clear that any agreement, new or renewed, with a foreign government for the stationing of American troops overseas and the furnishing of hundreds of millions of dollars in assistance should be submitted to the Senate as a treaty.

On December 16, with the co-sponsorship of four senior members of the Foreign Relations Committee (Fulbright, Javits, Church, and Symington), I introduced a resolution calling for the submission of the Portuguese base agreement to the Senate as a treaty. I plan to expand this resolution to include Bahrain or to introduce separate legislation.

The Senate's treaty making role is so clearly defined in the Constitution that it should be redundant to be introducing resolutions calling for the Senate to give its advice and

consent to treaties. Yet the Senate's role in the treaty making process has become so eroded that we have no choice.

#### ADDITIONAL COSPONSORS OF AN AMENDMENT

AMENDMENT NO. 832

At the request of Mr. KENNEDY, the Senator from South Dakota (Mr. MCGOVERN) and the Senator from New York (Mr. JAVITS) were added as cosponsors of amendment No. 832, intended to be offered to H.R. 12067, the foreign aid appropriation bill.

#### ADDITIONAL STATEMENTS

#### CONGRESS SHOULD IMPOSE A CEILING ON FEDERAL SPENDING

Mr. PROXMIRE, Mr. President, Congress should act on the President's proposal for a ceiling on Federal spending. But it should be a tough, no loophole, no exception ceiling, not merely a token.

Not only should Congress limit Federal spending, but the \$246.3 billion proposed by the President should be cut.

The main problem in staying within the budget does not lie with Congress but with the executive agencies. Since the end of World War II, or for more than 25 years, Congress has given every President every year less money than he has asked for. So far this year we have appropriated \$3 billion less than the President requested. And last year we appropriated \$3.5 billion less than the President asked for.

The problem lies with the executive branch. By a stroke of the pen or a verbal order to the Office of Management and Budget, the President can reduce the Pentagon's bloated spending, stop the space shuttle, cut back on wasteful projects, and restrict subsidies.

By cutting back in the wasteful and low priority areas, we could provide needed funds for the cities, education, and anti-pollution programs and still spend less than the President's proposed budget.

The \$90 billion in Nixon budget deficits was not caused by Congress going on a drunken spending spree. It was caused primarily by the administration induced recession which brought two catastrophic, budget-busting effects.

First, the recession caused an immense drop in budget receipts. Unemployed workers and businesses in the red do not pay taxes.

Second, the recession caused an increase in payments for unemployment benefits, social security, and welfare.

Congress should impose a rigid ceiling. It should do this by law.

But more important, the President should cut back on the fat and waste in both civilian and Pentagon programs, examine and cut the billions in subsidies which go to special interest groups, close the scandalous tax loopholes, and get the economy moving again.

The billions saved by these actions could be used to finance needed programs, reduce the deficit, and give the American taxpayer a break as well.

# NATIONALIZATION OF TRANSPORTATION SYSTEM

Mr. SCOTT. Mr. President, the question of nationalizing our transportation system has arisen more and more often recently as air, rail, and ground systems have been plagued with minor and not so minor problems.

John A. Creedy, president of the Water Transport Association, in pertinent remarks to the Rotary Club in Louisville, Ky., addressed himself to this issue.

Mr. Creedy says wisely that:

The force of competition is the single most important stimulant to improved efficiency. Remove the prod of competition and a nationalized industry does not struggle for improvement.

As detriments to a nationalized system of transportation, he cites significantly higher costs and the elimination of the discipline of the profit and loss report.

I commend this excellent address to Senators and ask unanimous consent that it be printed in its entirety in the RECORD.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

## REMARKS OF JOHN A. CREEDY—A NEW STRATEGY TO PREVENT NATIONALIZATION OF TRANSPORT

A peaceful, gain-loving nation is not often far-sighted. Admiral A. T. Mahan complained about that when he was trying to persuade the United States of the critical importance of sea power. In the end, his ideas prevailed.

Today we are urgently looking for far-sighted policies to make nationalization of transportation unnecessary.

I was in Washington last week and was alarmed by the extent to which many government officials are beginning to believe that nationalization is inevitable.

Sure, they say, we're against nationalization. But, they continue, every other nation has had to nationalize its transportation network. Why should the U.S. be different? The shock effect of the idea of nationalization has worn off. Policy makers very high in government are beginning to think the unthinkable.

The distant evils of nationalization are vague and insubstantial beside the urgent problems of today, particularly the ICC's report last year that 18 railroads are in danger of bankruptcy. Many policy makers have become discouraged by the complexity of the problems and have become defeatists. And naturally if one feels defeatist one is much more than half licked.

Why should anyone bother if transportation is nationalized? First, there is the precedent. Freight transportation in this country is a very large and important segment of the economy, accounting for 10 per cent of the gross national product. The policy-makers are talking about nationalizing railroads, but they recognize that nationalizing railroads would be only a preliminary to nationalizing the competitors of railroads. And if all transportation is nationalized why not rely on that solution when problems arise in utilities, in coal, or in steel? Once one major segment of the economy is nationalized, why stop? The rubicon is crossed. A fundamental start will have been made on large scale nationalization of the entire economy.

Second, the shipper and consumer will not be benefited. By definition, a nationalized system is one in which competition is eliminated. The force of competition is the single most important stimulant to improved efficiency. Remove the prod of competition and a nationalized industry does not struggle for improvement. Costs inevitably rise.

Third, under nationalization, the ultimate, objective discipline of the profit and loss report disappears. Managers become bureaucrats and politicians or report to them. Decisions would be centralized in Washington; there would be no competition of ideas among many businessmen in different parts of the country as there is today. Mistakes made in Washington would be imposed all over the country and magnified throughout the economy.

We do not need to speculate on the effect of nationalization. We can look at the nationalized systems and see that costs are significantly higher than they are in the U.S. With all its numerous faults, transportation in the U.S. is still far and away the most efficient and flexible system operating anywhere in the world. It is interesting that those who have gone the nationalization route are now trying to reverse the process. The British government, which operates a nationalized airline industry, has recently recognized the virtues of competition. It has authorized large scale new expansion and strengthening for a private enterprise airline to compete with the Government airlines for the express purpose of creating a second force to improve the efficiency of the national aviation system.

Last year I would have thought it unnecessary to warn against nationalization, but this year the climate appears to be different. The drift toward nationalization has gained speed.

What then is the correct strategy for the producers and consumers of transportation to adopt to make nationalization of transportation unnecessary?

An essential pre-requisite to the development of a sensible program is an open-minded approach to solutions both on the part of the producers and the consumers of transportation. Unfortunately, the transportation industry and its shippers have been notorious more for the acrimony of their disputes than for their ability to find common ground. Under the pressure of necessity, however, perhaps 1972 can be a year of significant progress.

The transportation industry has led the way toward new thinking. Last March, at the University of Louisville, on behalf of the water carriers, I suggested in a speech that the transportation industry should make common cause on a program of improvement. I outlined how such a program might be developed. I suggested we put together all those ideas which would benefit all segments of transportation and all those ideas which would help one mode and not hurt any other and that we should put aside temporarily those ideas on which we couldn't agree.

The time was ripe and it turned out to be a successful formula. For the first time in history, water carriers, truckers and railroads—traditional enemies—were able to agree on a common program.

Most of this program was favorably received by shippers and investors. This does not mean there is full agreement on all details, but there is agreement in principle on a government emergency loan guarantee program for railroads, liberalization of standards for abandonment of unneeded facilities, elimination of discriminatory state taxation of common carriers, tax incentives, more investment in the elimination of highway grade crossings of railroads, and better financial support for the ICC.

But helpful as these parts of the program will be when adopted, they will not save the industry from nationalization unless revenues and earnings are adequate and, of course, in this area there is plenty of controversy.

Having successfully made common cause among the various segments of transportation, it would be significantly helpful to explore what common ground there may be on this issue with the consumers of transporta-

tion—the shippers. Will they meet us halfway?

I believe common cause can be achieved. The shipper is naturally suspicious of anything which might result in the payment of more money for transportation services. At the same time, he badly wants improved and expanded transport services and he knows this costs money. It's a paradox. He may feel he automatically should oppose increases in rates and yet he knows that, in his own enlightened self-interest, modernizing and the transport plant is the only sound way to lower cost transport services.

Adequacy of revenues and earnings are of course crucial to the health of the transportation industry. At the same time, there can be no doubt that efficiency is best promoted in any industry by healthy competition. So far, there is agreement. But, of course, there is, up to now, no agreement on what one means by adequacy of earnings and healthy competition. Representatives of the shippers and of the industry have made fine speeches as part of the preliminary skirmishes, but so far there has been no meaningful exchange of ideas. The time has now come, in my view, for shirt sleeve sessions of those who are not afraid to face real problems. Fortunately, particularly in the shipper group working with the carriers in the Transportation Association of America, there are a number of shippers who, over the years, have, in my opinion, demonstrated the patience and open-mindedness necessary to reach common ground.

There can be no question that, so far, the shippers have had the best of the rate level argument. The problem in transportation is not excessive profits; it is the reverse, earnings so low that financing of needed new equipment and facilities has reached a crisis stage for broad segments of the industry.

The sort of thing that troubles the carriers has just occurred in the service to Alaska. Ten years ago, shippers trying to sell goods in Alaska had available to them only a very expensive service involving many costly re-handlings of the shipment. In the middle sixties, the Alaska trade was revolutionized by very heavy new investment of carriers in a modern containerized service eliminating re-handling and a tug and barge system capable of transporting 112 railroad freight cars in a single trip—better than a unit train. The two systems required millions in new investment. They compete vigorously with each other. New technology and competition have resulted in a drastic lowering of rates. Average rates are today 25 per cent below the 1964 levels. At the same time, service has improved dramatically.

Serving Alaska is not particularly easy and the risks are high. The traffic is mostly north-bound, with very little coming back. It is seasonal, but service is maintained year round. The weather is extremely difficult causing rapid deterioration of the equipment.

But in microcosm, the service to Alaska is the kind of transport service the country would like to see everywhere. There is heavy new investment, technological and service innovations, vigorous competition, very successful voluntary coordination among trucks, railroads and water carriers and a rate level which reflects the sharing of improved productivity with the consumer.

After a period of drastic rate reductions, the blast of inflation caught up with the Alaska service. Rate increases to reflect cost increases became necessary. A decision has just been announced by the ICC. For one of the carriers, a rate ceiling has been set providing a return of 3.3 per cent.

Since one could take the investment to a savings bank and make more without taking any risk whatever, such a decision amounts to confiscation of the investment. Put another way, the carrier is being required to subsidize the shippers.



A decision of that kind is damaging not only to the carriers but is also against the interests of the shippers. A shipper has only to ask himself whether he would be inclined to invest millions in his own business for a return of barely over 3 per cent to understand the problem.

It is an extraordinary fact that in all the vastly complicated structure of surface transportation regulation, the ICC has been given no statutory standards by which to measure the adequacy of revenues and earnings. It is not barred from taking into account a proper rate of return and indeed does pay lip service to the notion, but it is also not required to consider rate of return and there are no criteria for determining what the rate should be.

The shipper should not be against the establishment of proper criteria. The carriers believe that rates should cover the true costs of providing the service plus a return that enables them to compete in the capital markets with the rest of the economy. Naturally, the shippers will want safeguards. They should be protected against underwriting all costs just because they are incurred. Also they shouldn't have to underwrite non-transportation adventures. A proviso which said that the carriers were entitled to recover costs incurred under honest, economical and efficient management for needed facilities and earn a fair and reasonable return would cover those problems in principle. There should not be too much difficulty in defining "fair and reasonable." I think of it as the economic return, the return that does the job of keeping the investors interested.

Covering true costs and providing an adequate and competitive rate of return is, it seems to us, the minimum required if transportation is to remain a free enterprise operation. It also seems reasonable. What other approach do the shippers have to suggest?

The shippers should be willing to meet the carriers' legitimate financial needs. It is unrealistic for shippers to expect to be subsidized indefinitely. In their own long range interest, they should not want it.

At the same time, the carriers should be willing to meet legitimate suggestions for improving competition. Of course, adequate earnings would result in heavy new investment in technological improvement and cost reduction. New technology has always been a potent force for starting competitive activity.

The water carriers have long thought that there is much to be learned from antitrust experience in defining and eliminating those practices which suppress the free play of competition. Certain principles have been established over the years in the antitrust policy which are now part of the mainstream of national competition policy. They have relevance for transportation.

As a general proposition, it is the objective of the antitrust laws to prevent practices which artificially shut a competitor out of the market place regardless of efficiency. Thus, in transportation, there should be no objection to flexibility in pricing so long as the opportunity of the more efficient operator to compete is not artificially suppressed by the abuse of inordinate market power.

The details of putting into practice such a principle may be complex, but the principle is not and it may well be the basis for meeting the requirements of the shippers for greater rate flexibility.

The unity which has been achieved by the transportation industry in the past year demonstrates an ability to accept new ideas on the part of the carriers. This is an opportunity for further progress which should not be dismissed lightly.

There were many who said that the carriers would never reach a common position, but they demonstrated the flexibility to do so, much to the annoyance of some shippers

and the Department of Transportation. There will be plenty of people who will say that the shippers and the carriers have nothing in common. I disagree. A major breakthrough was achieved last year by the carriers. A similar one can be achieved this year between the carriers and the shippers.

If we can agree on two simple principles—rate levels adequate to provide a competitive return on capital for transport and rate flexibility which does not have the effect of suppressing the competition of the more efficient operator, we may have a basis for action this year on a successful strategy for making nationalization unnecessary.

In the light of the importance of the issue, I think it is worth while to make a major new effort to resolve as many differences as we can. We have a common interest in preserving an efficient system under private enterprise. In my experience the shippers are not so benighted, are not such poor businessmen, that they believe investment will flow into the service they urgently need at rates of return which are a fraction of that demanded in the capital markets.

It's a case for the shippers to extend the golden rule—do unto transport as you would have others do unto you.

#### CONSUMER SUBCOMMITTEE HEARINGS ON TOBACCO

Mr. JORDAN of North Carolina. Mr. President, tomorrow morning the Senate Commerce Consumer Subcommittee will initiate hearings on proposals for additional Government restrictions on cigarette advertising, on product standards, and even on the areas in which an individual will have the right to smoke.

Because I consider these proposals unwarranted, excessive, and an unjustified economic threat to my State which leads the Nation in tobacco production and manufacture, I wish to voice my strong opposition in testimony at the opening session.

It is not my purpose to discuss those issues in detail at this point.

There is one aspect of the hearings, however, which I think it appropriate to bring to the Senate's attention before they begin and to which I want to address myself now.

That concerns what I consider to be a wholly unjustified and improper attack on the R. J. Reynolds Tobacco Co., and its subcommittee's intent to consider amending the Cigarette Smoking Act of 1969 to include little cigars.

The statement called direct attention to what it described as—

The unconscionable over-reaching now being practiced by certain cigarette companies, notably R. J. Reynolds with its new Winchester.

The statement further alluded to such products as "cigarettes masquerading as cigars."

The implications of that statement, Mr. President, are inaccurate as well as intemperate.

Both the U.S. Justice Department and the Internal Revenue Service have officially ruled that Winchesters are, in fact, properly classified as cigars.

That is fully documented in a letter I have received from Mr. William S. Smith president of R. J. Reynolds Tobacco Co., and a copy of correspondence between officials of the firm and the Justice Department.

In the interest of fairness to this outstanding North Carolina corporation and in order that Members of the Senate may have all the facts about this question in advance of the subcommittee hearings, I ask that the full text of these letters be placed in the CONGRESSIONAL RECORD as a part of my remarks.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

R. J. REYNOLDS TOBACCO CO.,  
Winston-Salem, N.C., January 21, 1972.

HON. B. EVERETT JORDAN,  
U.S. Senate, New Senate Office Building,  
Washington, D.C.

DEAR SENATOR JORDAN: We were recently supplied a copy of a December 13, 1971, letter from John F. Banzhaf, III, Executive Director of Action on Smoking and Health, which was sent to you and the other members of the United States Senate. In his letter, he leveled very serious charges against R. J. Reynolds Tobacco Company and, in particular, its marketing of a new product—Winchester Little Cigars. The charges were the same as those made by Mr. Banzhaf on October 1, 1971, in a document filed with the Department of Justice captioned "Petition for Instituting Proceedings for Injunctive Relief and Criminal Prosecution," a copy of which Mr. Banzhaf has apparently supplied to you.

As soon as we learned that Mr. Banzhaf had filed his October "Petition," we immediately sought a conference with the Department of Justice and laid before it the facts regarding Winchester Little Cigars. We also supplied the Department with a written answer to the "Petition." For your information, we are enclosing herein a copy of that answer which, we believe, summarizes the true facts relating to the product and its category and demonstrates that Mr. Banzhaf's allegations are without basis in fact.

Winchester was classified as a little cigar in January, 1971, by the Internal Revenue Service, the Agency which has the statutory responsibility for categorizing smoking products. In making that determination, IRS extensively analyzed the constituents of the product and passed on our proposed packaging, labeling, and promotion. Its statutory standard for classification (26 U.S.C. Sec. 5702) is the same as that of the Public Health Cigarette Smoking Act of 1969 (15 U.S.C. Sec. 1332).

The most serious and obviously erroneous assertion by Mr. Banzhaf in his letter to you is that Winchester Little Cigars are "wrapped in brown paper which apparently contains small traces of tobacco." Clearly, if such were the case, the product could not and would not have been classified as a little cigar. There is absolutely no cigarette paper in the Winchester wrapper. It is made entirely of reconstituted cigar tobacco and certain constituents to provide tensile strength, as are the wrappers on all the other little cigars, and a number of other cigars, presently on the market. As noted, the wrapper, as well as the cigar tobacco filler used in the product, were submitted to the IRS for approval.

Mr. Banzhaf also advised you that Winchesters are being advertised on television, which is correct. We are presently testing the product in the areas of Boston, Massachusetts; Dayton, Ohio; New York City; Providence, Rhode Island; Springfield, Massachusetts; and Albany, New York; and we are using the broadcast medium as part of our marketing effort. Since the product is a cigar, and not a cigarette, we are lawfully able to do so. In our broadcast messages, as well as in print advertising, we affirmatively state that Winchester is "not a cigarette," but is a little cigar.

Little cigars have been marketed for well over 50 years. (There are at least 28 brands,

according to Mr. Banzhaf.) Although they are within the size ranges of a cigarette (70 millimeters-100 millimeters in length), which they must be to meet the statutory definition of little cigar, they differ from cigarettes in a number of significant ways. In the first place, they contain cigar type tobacco, rather than cigarette tobacco. Secondly, the wrapper is made of tobacco and not cigarette paper. Thirdly, they are generally different in taste than most cigarettes, and their tobacco and smoke have a distinctive cigar aroma. Finally, the cigar tobacco used in Winchester is a much darker tobacco than that found in American blend cigarettes.

Winchester has all of the above-noted characteristics. In addition, the packaging, labeling, and marketing of the product clearly identifies it as a little cigar. For these reasons, we are able to use the broadcast medium to advertise Winchester.

As you may be aware, the Justice Department has issued a press release announcing an agreement between it and Reynolds regarding the marketing of Winchester Little Cigars. We had not considered it necessary to make any changes in the Winchester packaging or promotional materials to advertise on the broadcast medium and be in compliance with both the spirit and the letter of the Public Health Cigarette Smoking Act of 1969. Nevertheless, in an effort to cooperate as much as possible with the Government and still retain the marketing independence to which we were entitled, we agreed to make certain changes in Winchester packaging and point-of-sale materials. The changes did not include any revisions of broadcast advertising.

We feel that the recent action by the Justice Department, like the ruling of the Internal Revenue Service before it, fully demonstrates that our Winchester product is truly a little cigar and, thus, can be lawfully advertised on television. Mr. Banzhaf, and others, such as your colleague, Senator Moss, are continuing their zealous efforts to effectively eliminate all forms of tobacco usage. Unfortunately, in seeking that end, some of them write letters and issue statements containing allegations which are contrary to fact. We trust that this communication, with its enclosure, will set the record straight.

If we can supply you with additional information on the subject, please do not hesitate to contact us.

Sincerely,

WILLIAM S. SMITH.

R. J. REYNOLDS TOBACCO CO.,

Winston-Salem, N.C., October 12, 1971.

HOWARD EPSTEIN, Esquire,

Acting Chief, Consumer Affairs Section, Antitrust Division, Department of Justice, Washington, D.C.

DEAR MR. EPSTEIN: I wish personally to thank you for the courtesy you and your staff extended to me and the officials of R. J. Reynolds Tobacco Company when we met in your office on the morning of October 7, 1971, to discuss the "Petition" filed by Mr. John F. Banzhaf, III, regarding this Company's product, Winchester Little Cigars.

Prior to investing the millions of dollars necessary to develop and test market Winchester, we felt compelled to take all reasonable steps to make sure that the product would constitute a little cigar—both for the lower tax rate which would be assigned and so that we would be allowed to advertise and promote the product on any medium we chose.

Section 5702(b) of the Internal Revenue Code provides a definition of what constitutes a cigarette for tax purposes as opposed to a cigar. This statute has been implemented by Regulations 26 CFR 270.11, 275.11. It should be noted that the statutory language under which the Revenue Service makes a determination is identical to the language found

in 15 U.S.C. § 1332(1). While we were not required to obtain an advance ruling prior to marketing our product, we felt it desirable to do so because there was very little guidance as to exactly what specific criteria the Revenue Service would consider in making a classification. Thus, to protect the investment necessary to test market this product, this question was submitted to the Revenue Service for an advance determination. As indicated below, all information pertaining to the makeup of the product, packaging, labeling and then existing advertising materials were submitted and considered by the Revenue Service prior to its classification of Winchester as a little cigar.

In view of the wide range of the discussions in our meeting last week, I thought it best to restate for you, in writing, our Company's response to Mr. Banzhaf's "Statement of Allegations Constituting A Violation Of The 1969 Act," and I shall do so below serially:

(1) Reynolds, indeed, is a major cigarette manufacturer engaged in interstate commerce. In fact, it is the nation's leading producer of cigarettes, pipe tobacco, and plug chewing tobacco.

(2) Reynolds does manufacture a little cigar product under the brand name "Winchester."

(3) Winchesters do have the identical shape of a cigarette. They are 85 millimeters long and have a circumference of 25 millimeters. Most cigarettes have this circumference although their length may vary from 70 to 101 millimeters. The 11 little cigar brands which accounted for over 95% of the 1970 little cigar sales volume have a length of 85 or 100 millimeters and are 25 millimeters in circumference. However, in order to be in the category "Little Cigar," 1,000 units of finished product may not weigh more than 3 pounds. Thus, in order to be included in that category, a product must approximate the size and the shape of a standard cigarette.

(4) Winchester does use a cellulose acetate filter with a covering which has the appearance of simulated cork. Although the Winchester filter is not identical to the filter found on cigarettes, such as Reynolds' "Winston" brand, it is true that cellulose acetate is used in common. However, at least 8 of the 11 leading little cigars use cellulose acetate filters, as does a leading Class A small cigar. These 8 little cigars constitute approximately 74% of the market, and of them 4 (including the top-selling brand) utilize a covering which has the appearance of simulated cork.

Contrary to the allegation in Mr. Banzhaf's Statement, Winchester does not use cigarette paper on its product. Its wrapper is made only of reconstituted cigar tobacco and certain constituents to provide tensile strength—the same materials used as wrappers on all little cigars presently on the market and a number of small cigars as well. The color is brown, the traditional color of cigar wrappers, which clearly distinguishes Winchesters from the conventional white wrapped cigarette.

Moreover, the color of the Winchester tobacco filler is strikingly darker than the standard golden hue of American-made cigarettes. The filler in Winchester is cigar and air cured tobacco common to other little cigars. The filler has a distinctive cigar odor, as does the odor emanating from the smoke of the product. The Internal Revenue Service, I might add, in reaching a determination that Winchesters are little cigars, carefully measured all of the above-noted characteristics.

(5) Winchesters are sold in packages containing 20 cigars, as are the 11 leading little cigar brands on the market.

(6) Winchester packages are the same size and shape of a conventional 85-millimeter soft pack. The Internal Revenue Service viewed our name and full color package and

carton designs prior to making its classification of the product. Ten of the leading 11 little cigar brands, which accounted for 82% of the category's 1970 sales volume, are sold in a conventional soft pack (80%) or a cigarette-type crushproof box (22%). Winchester does not bear any health warning since the 1969 Act applies only to cigarettes.

(7) Winchesters began being test marketed on September 7, 1971, in the Boston, Massachusetts, and Dayton, Ohio areas.

(8) Winchesters are displayed in retail outlets in Boston on merchandising racks from which cigarettes traditionally have been marketed. During the course of our submission to the Internal Revenue Service, we advised that Agency of our intention to do so. We were told that this would not present a problem as long as the product was clearly identified as a little cigar. Cigar products have always been sold contiguous to cigarettes, and often in racks attached to cigarette carton and package merchandising fixtures. Moreover, in a number of stores little cigars are marketed on such fixtures in the same fashion as Winchesters. Winchesters, in addition, are also displayed with other little cigars wherever we have been allowed to do so.

Cigarettes are a high volume, fast turnover item and are given prime display locations in most retail stores, such as supermarkets. This prime space is limited, and few, if any, retail stores carry every brand and variety of cigarettes. (The Federal Trade Commission reported some 121 in its August 12, 1971 "Tar" and nicotine report.) Little Cigars, as a category, have not generally created enough demand to justify being marketed in these prime locations, although there have been some exceptions. Aggregately, as a comparison to cigarette volume, the existing little cigar brands have generated annual sales equal to approximately two-tenths of one percent of the number of cigarettes sold, although the category is growing.

It has been Reynolds' marketing strategy from the outset to create a high volume, high demand, quality little cigar. Accordingly, the price of Winchesters to our customers was set substantially below the prices quoted on competitive little cigars. (In fact, our price is significantly below our cigarette brands.) As a result, Winchesters are being sold in Boston at retail at approximately one-half the retail price of other little cigars (and one-half the price of cigarettes). If this strategy is successful in generating high volume, then each retailer must decide whether this volume is sufficient to justify permanent placement in prime display locations. As we demonstrated to you, where Winchester is being marketed on cigarette package fixtures, we are placing point of sale pieces which clearly identify and distinguish the product as a little cigar.

(9) A number of cigarette vendors in Boston have agreed to market Winchester in their machines. However, this is not the first time that cigars (including little cigars) have been sold along with cigarettes in vending machines. We supplied you with some evidence of that fact. As in the case of sales of the product in retail stores, each vending column containing Winchester is clearly labeled and designated "Little Cigars," and a "Little Cigar" notice has been provided to vendors to be put next to each coin slot. The Internal Revenue Service was also told of our plans to seek vending distribution, and we received the same assurance as noted above with respect to fixtures. Winchesters are also sold in vending machines for close to one-half the price of cigarette brands.

The available space in cigarette vending machines is such that only the leading brands can be carried, for the average machine has but 22 columns. We were able to convince a number of vendors that the demand for our little cigar product would be great enough to justify its inclusion in their machines. We



were banking particularly on the dramatic price difference along with the high quality of the product. For these reasons, along with the fact that the package could easily be dispensed in a machine, the product was accepted.

(10)-(11) Winchesters' advertising schedule began in Boston on September 7, 1971, and a typical television advertisement did appear on September 25, 1971, at approximately 11:01 p.m. on WHDH-TV, Channel 5, Boston. A sample 60 second storyboard, visually depicting the action and related audio was submitted to the Internal Revenue Service and was considered as part of its approval of the product. There are no significant differences between that sample storyboard and the television commercials for Winchester currently on the air. As we advised you, other little cigars, as well as several small cigars, have had commercials on the broadcast media since January, 1971.

(12) The advertising for Winchester was designed to appeal primarily to men, our target market. The format used in its advertising contains some of the same elements in use in the advertising for other male-oriented products, such as beer, men's toiletries, automobiles, motorcycles, little cigars, small cigars, and large cigars.

(13) The so-called "theme" of Winchester contains certain descriptive words about taste often used in cigar advertising which may also have been used in the promotion of some cigarettes, but it is fundamentally different from any cigarette advertising. In both broadcast and print, it is repeatedly stated that Winchester is "not a cigarette." We clearly advise viewers, listeners, and readers that the product is a little cigar—a prime example being the superimposed copy "20 little cigars" at the conclusion of all television commercials. It is also said that the product is "not just another little cigar"—"it's a whole 'nother smoke"—"it's something else." The latter statements are substantiated by the fact, as has been indicated, that the product is selling for half the price of other little cigars on the market. Furthermore, experts in the Company who are schooled in the art, along with specially assembled test panels, have concluded that Winchester is the best tasting little cigar of the brands now being sold. We were able to achieve these breakthroughs only after several years of research, repeated testing, planning, and a considerable monetary investment.

(14) Winchester has been promoted in Boston newspapers and, in particular, was advertised in the September 27, 1971 issue of the *Boston Herald Travel* at page A-19. In that ad, the theme "new kind of smoke," "not a cigarette," and "not just another little cigar" was also followed. The ad was designed to focus the reader's attention on the price of the product—"25¢ or less per pack of 20 little cigars." The point is that we clearly state in all of our advertising that the product is not a cigarette and is, in fact, a little cigar.

(15) I have discussed earlier that all but one of the existing little cigars currently being marketed are sold in conventional soft packs or crushproof packs of 20. I have also spoken to the question of the place and manner in which the product, and others in its category, have been sold, and have noted that other little cigar brands have been advertised on the broadcast media since January, 1971.

We had no motives in developing a little cigar other than the marketing and sale of a new high quality smoking product. As Mr. William S. Smith, the President of our Company, recently stated in a telegram to the *National Observer*:

"The idea of entering the growing little cigar market—one estimate puts this year's sales growth at 20 percent—was one that came to us long before the radio-TV ban. Development of the product has been under-

way since 1968, for we realized that it would be good business for Reynolds, the nation's largest tobacco company, to have an entry in the little cigar market." \*

\* I am enclosing a copy of a recent article from the *U.S. Tobacco Journal* which discusses the little cigar market.

I trust that the above response will be of some assistance to you. However, as we have indicated, it is our sincere belief that Winchester is, in fact, a little cigar as defined in the 1969 Act, 15 U.S.C. § 1332(1).

If I can be of further assistance to you, please do not hesitate to contact me.

Very truly yours,

MAX H. CROHN, Jr.,  
Secretary.

[From the *Tobacco Journal*, Sept. 30, 1971]

MAXWELL: "THE LITTLE CIGAR IS WHERE THE ACTION IS"

John Maxwell, the U.S. financial community's best known tobacco industry analyst, has published his annual report on the cigar market with the observation that "the little cigar is where the action is, and . . . this section of the industry could well be up another 20 per cent plus in 1971." (The report was written in May.)

"The overall cigar industry," Mr. Maxwell reported, "is showing some of the same trends as the cigarette industry. Sales of filters and 100mm's appear to be increasing while the straights decline.

"This is particularly true," the Maxwell survey continues, "in the case of the little cigars (IRS definition under 3lbs. per thousand), with American Cigar showing almost a 50 per cent jump in units in 1970, moving the company into second place behind Lorillard. This growth has been mainly centered in Antonio y Cleopatra; however, American is in the process of introducing two new Roi-Tan 100's little cigars in regular and cherry flavor, which could accelerate the growth of this brand grouping . . .

"Lorillard's Omega continues ahead, led by the 100mm (variety of this brand). Stephano's newly introduced Action continues to move strongly ahead. It, too, has a filter offering two types of flavor: (a) cherry with a hint of menthol and (b) aromatic.

"We feel that the little cigar is where the action is, and that this section of the industry could well be up another 20 per cent plus in 1971. The industry feels that it is attracting new smokers that otherwise might have become cigarette users or non-smokers."

Turning to the "straights," Mr. Maxwell reported: "Production figures for large cigars were relatively flat in 1970, showing a 1.7 per cent gain, but we feel that consumption for the year was off slightly. We believe production figures for 1970 are misleading because of the many new introductions, centered mainly in Class B (IRS definition), i.e., Tijuana Smalls, Cigar-Let, etc. This particularly overstates consumption figures."

#### NUCLEAR POWER

Mr. PACKWOOD. Mr. President, many of us saw the editorial in Monday's *Washington Post* entitled "Nuclear Power: Questions That Need Answers." It is helpful having a major national newspaper editorialize in this manner, but what we have needed most in this whole controversy is a calm, reasonable voice articulately discussing the complexities of the nuclear power issue. It is frustrating to say the least to have "experts" talk to us in "reassuring highly technical terms," while at the same time we are burdened with the serious concerns of many reputable environmen-

talists backed by their own experts. But a calm, reasonable voice has spoken out, and it is even more gratifying to me that the voice is of my respected friend, Pete Henault of Idaho Falls, Idaho. Perhaps one reason Pete can so intelligently assess the nuclear situation is that he occupies a unique position in this somewhat confused world of ours. He is an atomic scientist at the National Reactor Testing Station in eastern Idaho, who simultaneously enjoys the role of an active conservationist. His record in conservation/environmental areas is as impeccable as his qualifications as an atomic scientist are unquestionable. At 35 years of age, Pete has covered a lot of ground.

I first met Pete because of his unyielding desire to preserve the Middle Snake River and Hells Canyon. He has guided the Hells Canyon Preservation Council through many a treacherous pass over the past few years, with patience, perseverance and dedication seldom witnessed on any issue.

Over Memorial Day weekend last year, I joined with him and many of our mutual conservation friends on a "Snake River float" which I will never forget. During that time the bonds of mutual interests in conservation matters in general and in preserving the Middle Snake River in particular were welded in a warm friendship between Pete and De Anna Henault and Bob and Georgie Packwood.

The discussion that Pete has provided in a four-part series in the *Intermountain Observer*, of Boise, Idaho, is the clearest statement on the nuclear power question that I have found anywhere. Both Pete and the *Intermountain Observer* should be commended for so needed a contribution. I urge all those who have qualms, unanswered questions, biased thoughts, or limited information on the subject of nuclear power to read this series by Pete Henault.

Mr. President, in order to make this series available to all who read the *CONGRESSIONAL RECORD*, I ask unanimous consent that Mr. Henault's four articles, together with the editorial by Mr. Sam Day of the *Intermountain Observer* be printed in the *RECORD*. I would also ask that the editorial from the January 24, 1972, *Washington Post* be printed following Mr. Henault's series.

There being no objection, the material was ordered to be printed in the *RECORD*, as follows:

[From the *Intermountain Observer*, Dec. 18, 1971]

NUCLEAR POWER: ENERGY FOR THE FUTURE OR ENVIRONMENTAL NIGHTMARE? WHILE THE AEC FLODS ON AND CONSERVATIONISTS CRY ALARM, THE PUBLIC WONDERS IF THE ATOM IS REALLY SAFE

(Editor's note: This is the first of a four-part series about the safety of nuclear energy as a source of electric power. The author is an atomic scientist at the National Reactor Testing Station in eastern Idaho who has also been active in environmental causes in this and other states. The views he expresses in the series are his own and should not be presumed to reflect the views of his employer, Argonne National Laboratory. For more about his background and the significance of the series, see the editor's column elsewhere in this issue.)

(By Pete Henault)

Searching through the archives of America's first experimental breeder reactor, an Atomic Energy Commission facility known in the nuclear profession as ERB-I, an entry in the log-book for December 20th, 1951, can be found which reads:

*At 1:23 p.m. Load dissipators from the Generator were connected—Electricity flows from atomic energy.*

With these simple words, peaceful nuclear power was born on an unlikely sagebrush desert 18 miles southeast of Arco, Idaho. "The atom had been harnessed."

The electricity on that historic day, 20 years ago next Monday, was used to light four 200-watt lightbulbs. On the following day, the supply of outside power to ERB-I was cut off and the reactor produced in excess of 100 kilowatts, enough power to supply all of the facility's electrical requirements.

ERB-I was shut down several years ago and was designated a National Historic Landmark when President Johnson visited the site in 1966. The facility is soon to be turned over to the National Park Service.

Today there are 120 nuclear power plants in operation or under contract throughout the United States and many more throughout the world. Nuclear plants are being built today which are capable of producing more than 1,000,000 kilowatts, an electrical generation capacity more than 2½ times that of Hells Canyon Dam and 50 times that proposed for the controversial Teton Dam not very far from ERB-I.

Two of these plants are capable of producing more power than is now generated by all the dams on all the rivers in Idaho. They don't drown wild rivers and scenic canyons. They don't pollute the atmosphere with tons of ugly fly ash and acid-producing SO<sub>2</sub> for you and me to breathe. They don't need to strip mine the sacred lands of the Navajo and the Hopi. They can be located almost anywhere, far away from Hells Canyon and Canyonlands and Black Mesa.

One would expect environmentalists to be grateful for that historic day in eastern Idaho 20 years ago. But they are not.

Last June, in a message to the Congress on national energy needs, President Nixon said, "Our best hope today for meeting the nation's growing demand for economical clean energy is with the fast breeder reactor." He asked Congress to make "a commitment to complete the successful demonstration of the liquid-metal fast-breeder reactor (LMFBR) by 1980" and requested an additional \$50 million to achieve the goal.

The National Wildlife Federation called the President's program a "wholesale commitment to federal promotion of the breeder reactor program, long a favorite Frankenstein of the Atomic Energy Commission" and termed the program "extremely costly and dangerous."

Shortly before the House was to vote on the appropriation, Friends of the Earth (FOE), a highly-respected national conservation organization, sent a letter to every member of Congress urging them to vote against the appropriation bill. The letter claimed that "little is known about the social and environmental hazards" and that FOE was "firmly opposed to the development of such a new and hazardous technology without the full participation of the Congress and the public in the decision-making process." Development of the LMFBR now, FOE said, was "premature."

Rep. Craig Hosmer, minority leader of the Joint Committee on Atomic Energy, responded with his own letter to each member—a very terse, indignant letter. He said, "It is an uncontroverted fact that our country is running out of power." He referred to FOE as "an organization naming itself 'Friends of the Earth'" and to their letter as

a "demand." He termed their request "ridiculous."

FOE's letter, very polite actually, had said, "We urge you to vote against passage of the bill in its present form." (emphasis added)

Hosmer's letter concluded with three paragraphs:

"It is both possible and provident to develop a safe breeder reactor."

"It would be suicidal for any modern industrial nation to refuse to do so."

"Your enlightened support of the necessary funding is solicited."

The House, apparently not wanting to be considered unenlightened and certainly not wanting the nation to commit suicide, approved the appropriation. The AEC and the President got what they asked for and FOE was ignored. But the debate over the merits of nuclear power, and especially the fast breeder, continues.

And it is growing. The Scientists Institute for Public Information (SIPI) has recently sued the AEC for not examining the environmental impact of the LMFBR. Bills have been introduced in the Pennsylvania and Delaware legislatures calling for a moratorium on all nuclear plant construction in those states. Senator Mike Gravel of Alaska, an increasingly vocal critic of the AEC and nuclear power, has proposed a nation-wide moratorium.

Last July 23rd environmentalists won a major victory when the U.S. Court of Appeals in Washington, D.C. ruled in their favor on a suit involving the Calvert Cliffs reactor in Maryland. The Court severely criticized the AEC, charging that it had made "a mockery" of the National Environmental Protection Act (NEPA). The AEC was not only ordered to implement the full intent of NEPA, making the Commission responsible for evaluating the total environmental impact, including the non-nuclear aspects of all nuclear power plants, but it was also ordered to consider the environmental issues in connection with all nuclear-power licensing actions that took place after January 1st, 1970, the effective date of NEPA.

This landmark victory by a few environmentalists is changing the whole course and structure of the Atomic Energy Commission. It will affect the licensing of scores of nuclear reactors, several of which are already in operation. Plants are expected to be delayed on an average of one year and cost estimates for the delays range up to \$5-6 billion. Senator Gravel indicated a possibility that "the long-term implication of the court decision may be a permanent halt to the nuclear electricity program."

Still the debate goes on. Last month a coalition of environmental groups, led by the Southern Vermont Conservation Society, filed a class action suit challenging the very constitutionality of the 1954 Atomic Energy Act.

Maybe it's about time we began to wonder what the environmentalists are concerned about.

What are the real facts behind all the uproar? Is the LMFBR a hazard and is its development premature as FOE claims? Is it an undeniable fact that the U.S. is running out of power as Congressman Hosmer claims and would it be "suicidal" for the nation not to develop the fast breeder? Is the breeder really our "best hope" for "economic clean energy" as the President has claimed?

Unfortunately, the answers are not simple. And also unfortunately, too many critics and too many proponents have been attempting to give the public simple answers.

But, for the environmentalists at least, getting the truth isn't easy. Where can they go with their questions?

Obviously the AEC is the most qualified to provide the public with straight-forward, understandable answers. They're the experts and it's our tax dollars that pay for their operations.

The American Nuclear Society should be answering the public's questions too, and, while the majority of members often seem mainly interested in talking to themselves and commending each other's achievements, the society does address the issues through a number of periodicals and several symposia each year.

The nuclear industry and the power utilities stand to gain the most from nuclear power and, since their gain may be at the expense of public health and safety and a decrease in the quality of the public's environment, they should be helping, possibly more than any other group, to provide the public with candid answers. But their main concern is profit and corporate growth, not safety or the environment, and in our capitalistic society, it is naive to expect the profiteers to be candid.

The responsibility for informing the public must, of course, reside with the AEC. But the AEC, born in an aurora of bomb-making secrecy and still with one arm hidden in that secrecy, has found it difficult to talk to the public about what the peaceful arm is doing. Too often it has hidden behind a questionable screen of classification or retreated with a barrage of atomish language that no layman could decipher. Too often it has simply been silent, apparently hoping the uproar would go away. When it has been forced to speak the tone of its dialog has been "Don't worry about a thing, we have everything under control."

To evaluate the questions and answers surrounding the nuclear power controversy, and to see them in their proper perspective, it is necessary to have some knowledge of the basic facts about nuclear reactors.

A nuclear reactor derives its power from the direct conversion of mass into energy according to Einstein's famous equation,  $E=mc^2$ , or energy equals mass times the square of the velocity of light. Most types of energy or heat-producing reactions are chemical, reactions where the atoms that make up matter move around and change their "preferences" for each other. In a nuclear reaction, the atom itself changes its composition.

Two special types of nuclear reactions are "fission" and "fusion." The term "fission" comes from the splitting of heavy atoms such as plutonium and uranium. The term "fusion" comes from the combining or fusing together of light atoms such as hydrogen. In each case the mass of the subatomic particles, after the reaction, is less than before and the difference is converted to energy according to Einstein's equation. The energy is seen in the form of heat, actually caused by friction of the atomic particles moving within the fuel structure at high velocities. The heat of course, can be used to produce electricity. Of the several ways to convert the heat to electricity, by far the most efficient is through the use of boiling water and a steam turbine.

Nuclear power reactors, as we know them today, are really fission reactors. The atomic bomb, or A-bomb, is also a fission-power reaction but is not a controlled reaction.

An example of a fusion reaction is the hydrogen bomb, or H-bomb. Man has not yet been able to achieve a controlled, power-producing, fusion reaction although a great deal of effort has been expended in this country, the United Kingdom, and the USSR in the attempt to do so. Controlled fusion power holds a lot of promise because its fuel might come from the almost infinite supply of hydrogen in ocean water. But fusion power as a means of supplying the nation's energy needs is probably 30 years away, at least.

The heavy uranium and plutonium atoms are split, or fission, when bombarded by neutrons, one of the subatomic particles that make up all atoms. From the fission reaction, two new atoms are created and usually two or three neutrons are released. The new atoms are called "fission products" and the



released neutrons are used to bombard new heavy atoms and keep the fission process going.

*It is these fission products that are the cause of most of the environmentalists' concern today. They are the waste product of the nuclear reaction.*

Fission products are often created in an unstable and highly-excited state. They immediately begin to decay or stabilize, giving off high-energy radiation in the process. Hence the terms "radioactive" and "radioactivity."

The radiation from this nuclear waste is much the same as X-rays but greater in intensity. If exposed to the human body in excessive amounts, changes in the molecules of the body cells can result. An altered behavior or death of the cells is likely to follow.

Too much radiation over a prolonged period can cause leukemia, anemia, leukopenia, cancer, cataracts, or genetic mutations. Exposure to extremely high levels of radiation can cause instant death but this is well controlled and is not a serious problem. It is the prolonged exposure to the low-level radiation, much like the long-term exposure to cigarette smoke or smog, that environmentalists are concerned about.

Nobody knows how much radiation is too much. We all eat, drink, breathe, and absorb some radiation every day. Most of it is "natural or background" radiation, coming from naturally-occurring unstable atoms and from cosmic rays. Medical and dental X-rays, and even television watching, add to the natural radiation we have learned to accept without concern.

The AEC has established a limit for the radioactivity released to the environment from a nuclear plant such that a person who lived on the boundary, drank the water in the effluent canal, and breathed the downwind air 24 hours a day every day of his life, would receive an exposure from the plant of no more than 500 millirem per year to his whole body. (A millirem is simply a unit of exposed radiation dose.) If there is a community near the nuclear plant, then the exposure can be no more than 170 millirem per year.

Recently, as a result of pressure from environmentalists, the AEC stated that the radioactivity released to the environment must always be as "low as practicable" in addition to never exceeding the above limits. Honest attempts are now being made to lower the routine release to "zero."

Drs. John Gofman and Arthur Tamplin, the two researchers of the Lawrence Radiation Laboratory that have caused much of the present uproar, refer to the AEC's limit as a permit for mass murder. They say the AEC limit should be reduced to one-tenth its present level, that exposure at the present level would produce 32,000 additional cancer deaths every year.

Dr. Linus Pauling, professor of chemistry at Stanford University and winner of the Nobel Prize in Chemistry in 1954 and the Nobel Peace Prize in 1962, supports Gofman and Tamplin:

"The arguments that have been presented by Gofman and Tamplin and that are supported by (my) calculations seem to me to require that a decrease be made immediately in the Federal Radiation Council guidelines for radiation exposure of the American people."

The AEC insists, "There is no accepted evidence of any sort of genetic or tissue damage to any human being exposed to these maximum levels." It disputes the calculations of Gofman and Tamplin, pointing out a number of factual errors and misinterpretations on which the calculations are based. One such "error," made in arriving at the 32,000 deaths figure, was the assumption that all 200 million people in the United States

would be exposed to the AEC limit. This is, of course, impossible since any activity leaving the site boundary dissipates just as smoke does from a conventional power plant.

And so the debate goes on, growing larger, with experts on both sides making claims and counter-claims. The environmentalists, concerned about the quality of life but often not trained in the area of radiation biology or medical physics, are caught in the middle. Who should they believe?

One thing the environmentalists could do is ask how the AEC limit compared with the background levels of radiation, the levels we have learned to live with every day without question.

Cosmic rays and natural radioactivity expose every American to an average of 130 millirem per year. So the AEC limit, in effect, allows for doubling or tripling the dose that an average American might receive.

But the background level can vary greatly depending on altitude (more cosmic rays penetrate the thinner atmosphere at higher altitudes), local mineral deposits, etc. While the nation's average is 130 millirem per year, the lowest state average is 100 (Texas) and the highest is 250 (Colorado). The average in Idaho is 170.

A person living in a brick home can receive 25-30 millirem per year more than his neighbor in a wood home. A person traveling across the country by plane can get an additional dose of 2-3 millirem just from the higher level of cosmic radiation at an altitude of 30,000 feet. An ordinary chest X-ray may involve exposure to 200 additional millirem. Seen in this light, the AEC limit seems low.

But missed in much of the controversy are a few bigger questions, questions which a few responsible environmentalists are asking and which the AEC can give no satisfactory answer. What are the long-term and cumulative effects? Isn't it possible that even with this low level of fission products, certain species may lead to an eventual, harmful buildup due to concentrations in various organisms, or parts of the body, or in certain species of the food chain? We know it happens with mercury, DDT, and other contaminants. Why not fission products?

The AEC has sponsored extensive research in this area and knows that some species do concentrate, such as radioactive iodine collecting in the thyroid, and several species do not concentrate. But there are still some species for which there is not enough evidence, not enough data.

In 1871, when there weren't many factories, air pollution wasn't a national problem; will radioactive pollution be a problem when there are 1,000 nuclear plants across the country? No one knows the answers to these questions.

The mercury we've put in our lakes and rivers will always be there; we can't clean it up. Lake Erie is dead and the sludge that killed it is too deep to remove. We've made too many mistakes from which we cannot turn back the clock.

And we know that those who are urging caution, the experts like Linus Pauling and the environmentalists like Mike McCloskey of the Sierra Club, have little to gain if the limit is lowered. But many among those who say the limit is sufficiently low, who reassure us there is nothing to worry about, have a lot to gain by leaving the limit at the higher level. An extra two or three million dollars on the cost of a nuclear plant may only slightly be seen in the homeowner's electrical bill but it may easily cut into corporate profits or affect the decision on whether or not a power plant can obtain the financial backing for its proposed plant.

To environmentalists, the defenders of the present AEC limit have a superficial view: "The solution to pollution is dilution," they seem to be saying. "If the radioactivity is too high, mix it with more water before

dumping it into our rivers. Any amount of radioactivity mixed with twice as much water will cut the activity per gallon in half.

"If the gaseous activity in the exhaust air is too high, build the boundary fence a little farther away then the activity will be diluted more when it passes the nuclear plant boundary."

But a Scotch and Soda, while it doesn't taste as strong, contains just as much scotch as a Scotch on the Rocks!

Technically, it would be simple for nuclear plants to operate with a lower limit, lower even than Gofman's proposed level. Many plants in fact routinely release only one per cent of the AEC limit. Economics might suffer slightly but cost would be passed on to the consumer. The additional cost of a homeowner's electricity would be negligible.

On the other hand, is it right to hamper the utilities with restrictions that are not necessary? No, it is not right but the key here is that *we do not know* that it is not necessary. In the past, we have always decided in favor of the polluter and today we are incapable of cleaning up the mess we have made and continue to make at an increasing rate every day.

Maybe it is time we gave our environment the benefit of the doubt.

[From the Intermountain Observer,  
Dec. 25, 1971]

THE GREAT SALT MINE FLASCO—KANSAS DISPOSAL SITE PROVED TO BE A POOR BET. BUT AEC MAY YET LICK THE RADIOACTIVE WASTE PROBLEM

(Editor's note: This is the second in a series of articles about the impact of nuclear power production on the environment. The author is a nuclear scientist at the National Reactor Testing Station in eastern Idaho and also a director of the Idaho Environmental Council.)

No significant impact on the environment resulting from either the construction or operation of the proposed repository is anticipated.—AEC Environmental Impact Statement, Radioactive Waste Repository, Lyons, Kansas.

The overwhelming sentiment in Kansas is to get the AEC out of the State. Under no circumstances should the AEC be relied on to speak for the future generations in Kansas. This project is so bad that no other state will accept it, and the people of Kansas are beginning to get information concerning the poor prior record of the AEC in this area.—Ron Baxter, Chairman, Kansas Sierra Club.

(By Pete Henault)

It takes about nine septillion fissions every day, or more than a billion trillion every second, to produce the power of today's large nuclear reactor. Even with the atom as small as it is, one might suspect these fissions would produce a lot of radioactive waste.

Most of the waste of serious concern is separated into "low-level" and "high-level" waste, terms which refer to the intensity of radioactivity per unit volume. Another term that is used is "unrestricted waste" and refers to the waste having concentrations of radioactivity so low, that it offers no environmental threat or hazard based on all available information. There are no restrictions, from the radioactivity standpoint, on the disposal of these wastes.

Still another type of radioactive waste, and the one which many consider the most hazardous, is "alpha waste," the waste containing small amounts of plutonium. Plutonium is an extremely hazardous material because of its radioactivity and the fact that on entering the human body it concentrates in the bones and is excreted very slowly. The time for any amount of plutonium to decay to one-half of its original amount is 24,400 years.

There are two types of "disposal" methods for radioactive waste: (1) dilution and controlled dispersion to the environment; and

(2) concentration and burial or storage. High-level and alpha wastes are invariably buried or stored. The term "high-level" is often used to refer to both.

Although nuclear power plants are the source of nearly all the radioactive waste (some radioactive waste comes from the concentration of naturally-occurring radioactive atoms during the mining and fuel-fabrication processes), the plants themselves release only the tiniest fraction of the waste to our environment. More than 99.9 per cent of the radioactivity generated by a nuclear plant remains locked in the fuel elements until they are reprocessed to restore a high grade of heavy, fissionable atoms. The end product of the reprocessing, therefore, makes up most of the radioactive waste.

The problems associated with control of the low-level waste at the reprocessing plant are similar to those of the operating nuclear plant. The environmental concern is the possible, long-term, gradual effects on human health and our ecosystem. But of even greater concern is the high-level and alpha waste.

We know that these wastes contain the potential to completely destroy or change all life as we know it today. And we know that the alpha waste will not completely decay for hundreds of thousands of years. What we do not know is whether we can adequately package all this waste and guarantee that it will never escape into our environment.

The need for a national radioactive waste disposal site, called a "repository" by the AEC, has been growing more critical every year. A report released two years ago showed that 93 million gallons of high-level liquid waste was then stored at the Hanford, Wash., Savannah River, S.C., and Arco, Idaho, sites.

As reported in this newspaper by A. Robert Smith last April, a good deal of this was leaking into the ground from the Hanford site, where most of the waste was located. As much as 227,400 gallons were reported to have leaked from 10 of the 49 underground storage tanks which did not have provisions for secondary containment.

At the Savannah River plant, where 17 million gallons were stored, leakage occurred from four tanks, but only in one case did high-level waste seep into the ground. None of the 1.6 million gallons stored in Idaho leaked.

The AEC has been studying the problem of permanent disposal for the high-level radioactive waste for many years. It established several important criteria: The site must be in a location that would be stable for a million years or more and would not be affected by earthquakes, war, natural disasters, or sabotage. The waste must not be able to come in contact with man's water supply or his food chain. It must be free of surveillance and maintenance and the cost must not be prohibitive.

For the past 16 years the AEC has been studying one proposal that has appeared increasingly more promising. It proposed to bury the waste in vast salt beds just outside of Lyons, Kansas, a town of 4,300 about 60 miles northeast of Wichita.

The salt beds are located far from the earthquake zones of America's mountainous regions and are known to have been stable for 250 million years. If left undisturbed by man there is no reason to believe that they wouldn't remain stable for another 250 million years, well beyond the potentially hazardous lifetime of the radioactive waste.

This sounded pretty good and when the AEC told of its plan at various international meetings, the world was impressed—and jealous. Few locations can be found in the world with such stable deposits of any substance.

The AEC plan called for converting the liquid waste at the reprocessing plants into a solid ceramic material, about one-tenth the liquid volume, and encasing it in stainless steel cylinders 10 feet long and six inches in

diameter. The canisters would be transported by rail from reprocessing centers in New York and Illinois to an abandoned salt mine near Lyons which would serve until the year 2000. The canisters would then be lowered into holes in the floor of an excavated room in the mine 1,000 feet below the surface.

Because the decaying waste generates an extensive quantity of heat, 20 of the cylinders in a 30 by 300 foot room would produce an ambient temperature of 400° F. The room would be back-filled with loose salt and sealed off. Heat would cause the back-fill to recrystallize and flow plastically, causing it to merge with the bedded salt thus sealing off the waste.

The salt beds seemed to be the answer. But the Kansas Sierra Club and a number of other state and citizen environmental groups didn't feel good about the AEC's proposal.

They discovered that a number of test holes had been drilled through the salt beds in search of oil below. While most of these had been mapped and later leased, not all were recorded. What if ground water seeped down through these holes and dissolved large portions of the salt below?

Then they discovered that the steel containers in which the high-level waste was to be stored would corrode within as little as six months. The combination of heat, salt, and 0.5 per cent water naturally occurring in salt would make short work of the stainless steel. The waste would then be left as bare, localized deposits in the salt. What if something happened someday to crack or dissolve the salt beds, maybe something in 5,000 years that we can't even imagine now?

The AEC replied that there was no intention of ever relocating the waste. However, it said, "The burial locations for each container will be accurately surveyed and recorded so that precise location of the wastes will be known. Retrieval through the use of remotely controlled automatic mining equipment would then be possible. Concepts for retrieving the stored wastes will be examined."

The AEC didn't hide the fact that the steel containers would corrode in six months; it just was not candid about it. And it wasn't very candid about the hydraulic salt mine just a few miles away on the other side of Lyons, either.

Digging deeper, the concerned public discovered that the commercial mine, which planned to continue its operations for 30 to 40 more years, had a tunnel that came within 1,500 feet of a tunnel extending from the AEC mine. How long would it take water to dissolve through the 1,500 feet of salt, thus making it possible for uncontrolled migration of the radioactive waste?

A few months ago it was reported publicly that 175,000 gallons of water once pumped down into the hydraulic mine during a salt-recovery operation had disappeared instead of coming to the surface as brine. Neither the AEC experts nor the mining company could explain where the water had gone. Still not known publicly as this is written is that the water-vanishing incident happened six years ago, in 1966, and the AEC has known about it since that time.

After all this and much more digging by non-AEC environmentalists, the AEC finally announced in October that it was having second thoughts about the Lyons, Kansas, disposal site. Work was stopped and the AEC sent a letter to the Joint Congressional Committee on Atomic Energy explaining its action. The letter noted the possibility of flush-out of the radioactive waste by the adjoining salt company's operations and the fact that the solution-mining would eat away at the underground salt pillars. The AEC letter said there is a potential of "sudden and dramatic collapse of a fairly large area not far from the repository site, with the formation of a surface lake which could be several hundred feet deep."

These, of course, are not all of the environ-

mental impacts the AEC might have been more concerned about. What about all the heat from the decaying waste—where does it go? The AEC says it'll produce a maximum temperature rise of 1° F at the surface of the site approximately 800 years after burial and a maximum rise of 32° F in an underground stream 285 ft below the site, also 800 years after burial. But the State Geological Survey says a thermal explosion is possible and that faults in the overlying rocks could result.

The AEC's environmental impact statement, however, gives assurance that the radioactive wastes will remain safely locked away from the reaches of man for the 500,000 to one million years it will take them to decay. It begins with the following introduction:

*No significant impact on the environment resulting from either the construction or operation of the proposed repository is anticipated. Minor environmental effects anticipated on or below the 1,000 acre proposed site as well as those beyond the site boundaries are described below.*

Today virtually every newspaper in the State of Kansas is opposed to burial of nuclear wastes in their salt beds or are opposed to it until further studies can be conducted. The Governor is opposed also and has asked that the project be stopped. In the state legislature, 48 members of the House and nine Senators have sponsored bills calling for the Governor, President Nixon and Congress to reject the project.

Congressman Joe Skubitz of Pittsburg, Kansas, said, "How ironic it is for a member of Congress to find it necessary to sit here today and plead that an agency of government not pollute the environment while at the same time Congress will be asked to consider the expenditure of billions of dollars to clean up pollution that already exists. How ironic it is to be required to make a case against a new kind of pollution so hazardous and so lethal that all existing pollution seems almost inconsequential."

But Congressman Craig Hosmer of the Joint Atomic Energy Committee, who last June told us it would be suicidal to delay the fast breeder reactor, has steadfastly supported the AEC throughout the dialogue on the repository issue. "I get the impression that we should never have invented the wheel if we had thought about it before hand," he said.

If becoming aware of the facts is disturbing, that is as it should be. We Americans are on the verge of making decisions about the future of nuclear power that will drastically affect the future of man, either for better or worse.

If becoming aware of these facts causes us to turn against the AEC and nuclear power, if it makes us want to rush out and say stop, that would be an unwarranted reaction. *We don't yet know the whole story.* To do so would be to confirm what the AEC has feared all along: "Nuclear power is too complex for the public to understand and we can better serve the nation by deciding for them what is best rather than scaring them with the awesome possibilities."

It appears now that the AEC made some poor decisions in regard to the abandoned salt mine near Lyons. But this in itself is no reason to condemn the AEC nor is it any reason to abandon the concept of using salt beds for high-level radioactive waste disposal. Most of the problems uncovered and made public by environmentalists are unique to the Lyons site.

Some solution, however, must be found for the radioactive waste. Like it or not, and whether or not we keep it, nuclear power is here. Total generating capacity is already over 7,000,000 kilowatts and in the next year or so, capacity will surpass that of hydroelectric power.

There are, of course, other ways to dispose of the radioactive waste. We could dump it into deep ocean trenches where it may eventually disperse, increasing background levels



of radiation somewhat. We could send it to the sun by rocket or to some safe orbit in space. We could, through other types of nuclear reactions, convert it to safe non-radioactive materials.

These are not wild ideas but sound, technical concepts that have been studied and evaluated. Taking into consideration all the desirable criteria, none appear today as practical as burial in stable Earth locations.

Overlooked in most of the controversy, however, is whether or not we should even try to dispose of the waste now. Unlike other methods of producing power, the AEC has so far done an outstanding job of controlling the harmful effects of nuclear power. We know we have the technology to continue containing and storing the waste safely for 30 or 100 more years. Who's to say we will never find a beneficial use for the waste? We Americans, when we want to or are forced to, have a knack for finding ways to make money out of things we once thought were useless. And possibly in a few years we might even find a better solution for permanent disposal than the salt mines.

One thing we should do, if we decide to wait, is to put some of the profits aside, possibly the equivalent cost of burial in the salt beds. When the ultimate solution is agreed to, we would then not be faced with the problem of finding new sources of money as we are today in our desire to clean up air and water pollution.

The problem bothering environmentalists most about the salt-mine disposal method, is the irreversible nature of the decision. There is no way to guarantee that the poisonous waste will never return to man's living environment. If we decide in 50 or 100 years that we made a mistake in burying the waste, as we have decided it was a mistake to bring slaves to America, or to annihilate the Indians, or to fight a war in Southeast Asia, we could, at some staggering cost, recover the waste. But what if we don't find out it was a mistake for a thousand years or ten thousand years?

The social and environmental impacts of the commitment we are now making to nuclear power are staggering. There is no reason to turn away from the commitment but we must examine the alternatives and make our decisions with all aspects in mind. We should not let a few technologists enthusiastic about their own proposals, or a few power companies enthusiastic about their profits, make such far-reaching decisions for all of us.

Most of all, we must find a path, taking into consideration the present mess we have made of our planet, which will give man the greatest chance of surviving during the next few hundred years and of preserving some quality of life that is desirable. We are not doing that now and the lack of concern on the part of many of us is very disturbing.

[From the Intermountain Observer, Jan. 1, 1972]

#### THE SEARCH FOR AN ANSWER TO THE WATER HEAT PROBLEM—THE PUBLIC MUST MAKE SURE NUCLEAR POWER DOES NOT SETTLE FOR THE CHEAPEST WAY

(Editor's note: This is the third in a series of four articles about the impact of nuclear power production on the environment. The author is a nuclear scientist at the National Reactor Testing Station in eastern Idaho and also a director of the Idaho Environmental Council.)

(By Pete Henault)

The environmental impacts of nuclear power fall into two broad categories: those caused by the release of radioactivity and those caused by the release of waste heat.

The impact of released radioactivity, if indeed it is not adequately controlled and some day becomes an impact, will be long-term in character, something that will affect future generations. And the impact will be seen first

in a biological way, affecting our health and the health of life around us. We might see it first as a gradual increase in the cancer rate, or in infant mortality, or in the decline of some non-human population as in the case of eagles declining because of the effects of DDT on eggshells.

But the most harmful environmental impact of nuclear power, in the coming years at least, the one that is already changing our quality of life and the one promising to be the most difficult to control, is the effect of waste heat. And while it is a very real problem of nuclear power, it is not the fault of nuclear power that it is a problem.

Most of the environmental effects of waste heat today are harmful effects and are, therefore, called "thermal pollution" by the critics and ecologists. The power companies, the Atomic Energy Commission, and those who equate more power with progress prefer to use the term "thermal effects," partly to give the public a more favorable image of their power plant and partly because the waste heat is not always harmful or does not have to be harmful. But for the next 20 years or so, it appears that "thermal pollution" will be by far the more accurate term to use.

The highest efficiency that most conventional fossil-fueled plants achieve is about 41 per cent. Today's nuclear plants, because they cannot operate as hot as conventional plants, have an efficiency of only about 30 per cent. This means that 70 per cent, or nearly three fourths, of all the energy produced by nuclear reactors is thrown away—dumped into our environment as waste heat.

Thirty per cent versus 41 per cent doesn't appear too bad and nuclear power proponents are quick to point out that what ecologists and environmentalists are calling "thermal pollution" has been around for a long time. Technically, they aren't lying and most environmentalists, not trained in the dialogue of British thermal units and thermal efficiencies, find it hard to rebut their argument. But looking at the facts in perspective yields a different picture.

A typical size for electrical generating plants in the next few years, whether nuclear or conventional, is one million kilowatts. Plants two and three times larger are being built, but the one million size will be more or less standard.

In order to generate one million kilowatts, a nuclear plant, because of the 30 per cent efficiency, must produce 3,333,000 kilowatts of heat. A conventional plant, with 41 per cent efficiency, must produce 2,440,000 kilowatts of heat to generate the same amount of electricity. Looking at the difference between the total heat produced and the electrical output, one can see that the waste heat is 2,333,000 kilowatts for the nuclear plant and 1,440,000 kilowatts for the conventional plant. Today's nuclear plants, therefore, waste about 893,000 kilowatts, or a full 60 per cent, more heat than the conventional plants.

Looked at this way, today's nuclear plant is by far the bigger thermal polluter.

What really bothers environmentalists and professional ecologists, however, is not just the much greater thermal pollution potential of nuclear plants, but the growth of all thermal pollution.

Our present consumption of electricity is growing at the rate of 9.25 per cent per year, completely doubling every 7.8 years. And use has been accelerating during the past 10 years with no sign of leveling off soon.

"Doubling every 7.8 years" sounds innocent enough and to some it even has the sound of prosperity. But to those who spend their lives studying the balance of nature and see how thermal pollution is already affecting our quality of life, this doubling rate is an awesome and frightening statistic. It should frighten us all.

In any one doubling period, the growth quantity—be it energy, population, or the

amount of land covered by highways—increases by an amount equal to its growth during its entire past history. By late 1979, therefore, only 7.8 years from now, we must install as much electrical generating capability as we have installed in all our previous history.

Our present electrical generating capacity in the United States is about 362,770,000 kilowatts and is growing at the rate of 2.6 million kilowatts every month. By January 1982, if we continue at the present rate of growth, our capacity will be 878,700,000 kilowatts and growing at the rate of 6.5 million kilowatts per month.

By comparison, the generating capacity of the entire state of Idaho is approximately 1.9 million kilowatts, or only about 70 per cent of the present monthly growth rate of the nation.

The city of Idaho Falls normally consumes about 40,000 kilowatts and on a recent cold day established a new record of 51,000 kilowatts. Our nation is presently installing an average of 51,000 kilowatts of new generating capacity every 14.3 hours. In ten years, we will be installing that much new capacity every 5.7 hours if the trend continues.

This growth, in the Northwest alone, is going to cost us an average of \$2,500,000 per day, every day, for the next 20 years, just to provide new generation and transmission facilities—an investment of \$21 billion by the end of 1991.

Already the cooling water needed to cool the steam condensers of today's generating plants adds up to 2,300 billion gallons per day, an amount of water equal to twice the daily runoff of the entire nation. Most of this is used as "once-through" cooling and is returned immediately to the nearby river or water source from which it is taken and is available for use again further on downstream. But about 60 billion gallons per day is lost as evaporation and not returned. For all uses, the United States is today consuming about 310 billion gallons per day or about 26 per cent of its entire daily runoff.

Obviously, when we're using such substantial fractions of all there is, we cannot continue with the doubling process very long.

By the year 2000, when the majority of today's population will still be under 55 years of age, the waste heat from power generating plants, if we were to follow the present trend, would be 18 times what it is today. Eighteen times the 60 billion gallons per day we are now using is more than all the water available in the United States for all uses.

There are three principle ways for a power plant installation to rid itself of the waste heat: 1) dumping it directly into the nearest river, lake or bay; 2) dumping it into the atmosphere through a specially designed "wet cooling tower"; and 3) dumping it into the atmosphere by use of a special "cooling pond."

The cheapest, and the most environmentally threatening to the Northwest, is the direct dumping to the nearest source of fresh water.

A typical one-million-kilowatt power plant, dumping its waste heat into a river carrying a flow of 3,000 cubic feet per second (cfs), will raise the temperature of the river by about 10 degrees Fahrenheit. It may take several miles for the water to return to its natural temperature.

By comparison, the minimum allowable flow downstream of the proposed Teton Dam, if built, will be 300 cfs. The minimum allowable flow of the Middle Snake in Hells Canyon, one of America's mightiest rivers, is 5,000 cfs.

Since water above 93 degrees is uninhabitable for all fishes in the U.S. except certain southern species, it wouldn't take many plants dumping their heat into Idaho streams before our trout and salmon began to disappear.

Although temperatures above a certain

level would cause direct fish kills (the lethal limit for trout is 75-77°F), thermal discharges well below the limit can have a profound effect on aquatic life. Higher than normal temperatures can adversely affect a fish's metabolism, respiration and heartbeat. This results in a greater need for oxygen while, at the same time, dissolved oxygen content in the water is decreasing. The combined effect is often detrimental.

As the water temperature is changed abnormally, the entire food chain is thrown out of balance. Reduction in supply of a living organism that is part of the food chain of a fish species may lead to the depletion of that species. Often the elimination of one species is followed by the establishment of an undesirable species.

Not surprisingly, fish activity slows down at high temperatures. At a water temperature of 63°F, trout will slow down in pursuing food; at 70°F, they are incapable of pursuing food. Preferred environmental temperature for trout is about 58°F.

Effects on reproduction can be adverse also. The temperature requirements for spawning are usually much more limited than for adult survival. For example, the Federal Water Pollution Control Administration recommends a maximum temperature of 48°F for the spawning of lake trout and about 55°F for other species of trout. The Oregon Game Commission states that a rise of 5.4°F in the Columbia River could be disastrous for the eggs of the Chinook salmon.

While thermal discharges near a lake shore tend to disrupt spawning areas and kill eggs, thermal discharges into a river or reservoir impose a thermal block that prevents fish from reaching the spawning areas.

Migrating salmon, for example, which do not feed during migration, will tend to avoid the thermal block, become confused, and die without ever reaching the spawning beds. Those that do pass the thermal block expend an excessive amount of body fuel due to increased metabolic rates in the higher temperature water and may not have sufficient energy to reach the spawning area.

These are only part of the adverse effects that might occur from large-scale thermal discharges. Changes in algae species could eventually lead to eutrophication, as in Lake Erie. Because fish are very sensitive to sudden and rapid temperature changes, especially a temperature drop, the sudden shutdown of a power plant would have an adverse effect on the fish in the vicinity of the discharge.

In all this discussion, it is important to remember that it is really the more subtle, ecological effects of thermal discharges that must be studied, effects which may occur to the life processes in a body of water over several years.

Getting rid of the waste heat from power plants by the use of wet cooling towers employs the principle of removing heat by evaporation. The heated effluent is discharged into a high tower (400 to 500 ft.) with sloping sides; as the water falls in a thin film over a series of baffles it is exposed to the air rising through the tower and is cooled by evaporation. Most of the water, cooled by up to 20°F, collects in the basin below the tower and is pumped back to the power plant condensers.

The main drawback is the amount of water lost to the atmosphere. The towers for a typical one-million-kilowatt plant would eject as much as 20,000 to 25,000 gallons per minute of evaporated water or about 30,000-40,000 acre feet per year. A series of these plants in Idaho, while losses would likely be somewhat less because of the cooler climate and lower water temperature, would be little different from full-scale water diversion to other states.

While alleviating problems associated with thermal pollution, this high rate of evaporation would raise the humidity of our dry

mountain air, something we who love Idaho's climate should not consider lightly. Extreme fogging would occur during periods of temperature inversion, making visibility difficult, causing icy roads during cold weather, and possibly raising auto insurance rates.

Other problems would likely be caused by the tons of chemicals added to the cooling water to control hardness, algae and scale buildup, etc., in both the cooling tower and the condenser. This writer doesn't know what effect these chemicals would have on the surrounding environment except that a large portion would be carried into the atmosphere by the evaporating water while most would eventually be dumped back to the nearby source of water that is used to replace evaporation losses.

Another way to get rid of the waste heat is to use artificial lakes or "cooling ponds." Size of the ponds, a principle drawback, would be 1,000 to 2,000 acres. A 2,000-acre pond would be one mile wide by three miles long, a few feet deep at one end and sloping to a depth of 50 feet at the other end. Water for cooling would be drawn from the deep end and the warm water discharged at the shallow end.

A steady inflow of water would be required to replace evaporation but losses would be somewhat less than that for the cooling towers. Fog in cold weather would be a problem as in the case of the cooling towers. Chemical addition to the atmosphere would not be a problem but buildup in the artificial lake would be.

Power plant proponents are proud of their artificial lakes. Where only a small meandering stream might exist, they move in with bulldozers and before long they have a "lake." The "lake" is stocked with warm-water fish, boat-ramps are installed, "campsites" are constructed—benefits abound. Soon the power plant is said to have a "positive environmental impact."

Speaking about the benefits of these ponds in Coeur d'Alene recently, a nuclear-power company executive said, "Whereas this new lake will create a fishing and recreation resource where none now exists I have yet to see anyone catch a bass—or water ski—or take a swim—or camp overnight in a cooling tower."

He said this in Idaho, only 150 feet from the shores of Lake Coeur d'Alene.

While the problem of waste heat presents a very dark picture for the years ahead, it would not serve the purpose of this discussion to leave the impression that things are totally black. There are environmentally-acceptable ways to get rid of the waste heat. For large power plants on the coast, where much of the power will be needed, it appears that the heat from a limited number of plants can be discharged to the ocean with negligible adverse effects, provided of course, it is dispersed in a careful manner.

For plants located inland, a method having no apparent adverse effect would be through the use of dry cooling towers which avoid evaporation and chemical release to the environment. The hot water is channeled through tubing that is exposed to an air flow, and gives up its heat to the air much the same as an automobile radiator. A few dry cooling towers have been built and put into operation in Europe but dry towers are expensive. Wet cooling towers typically run 6 to 10 per cent of the total cost of a power plant and dry cooling towers cost two to three times as much as the wet towers. There is little talk of using dry cooling towers in the foreseeable future.

Still another way to get rid of waste heat is to use it in some beneficial way and numerous proposals are currently being considered. One of the most promising uses appears to be for the desalination of ocean water. Irrigation or drinking water for a city could be supplied from such a plant. Extensive research has been done in this area and it ap-

pears desalination as a use of waste heat is on the verge of becoming economical.

One potential use in the Northwest might be for warm-water irrigation. The intent here would be to lengthen the spring and fall growing seasons or to even keep the ground warm all year round, thereby increasing the number of crops harvested each year. Another possibility might be greenhouse heating. By extending the growing season and providing a hot, moist environment, it is estimated that very large quantities of vegetables could be raised.

Aquaculture is still another much talked about use. In England, three times the normal shrimp production has been obtained in the warmed water near one nuclear power plant. Experiments on Long Island and in Maine have indicated increased growth rates and yields of oysters and lobsters with controlled, warmed water. By using warm water throughout the year, it is estimated that yields of catfish of 5,000 to 10,000 pounds per acre can be expected. Aquaculture is, in fact, a promising potential use for the waste heat and maybe some day a prime source of food and protein.

Unfortunately, most of these promising possibilities are only in the preliminary study stage at the present time and even the most optimistic studies do not envision nearly enough uses for the quantities of waste heat we can expect. The most economical solution for getting rid of the waste heat is still to dump it into the surrounding environment as simply and as cheaply as possible. Unless the public demands that a better solution be found, that's going to mean adverse environmental effects.

For us in the Northwest, who still enjoy a large share of unaltered, high-quality environment, the prospects of this waste heat present a sad picture. We are going to see the artificial cooling ponds stocked with bass and catfish while our trout and salmon streams grow fewer and fewer; and we are going to see the fog-making cooling towers that ice up our highways and raise the local humidity. And our grandchildren will probably learn to accept them as a way of life.

There is little we can do to stop the near-term growth of electrical power, short of a major disaster. Population control may help for the year 2000 and beyond, if we act soon, but not for the next two or three doubling periods. The people who are going to want all this power are already here. We could, if enough people become aware in time, and cared, insist on the more costly environmental safeguards but our past history with dams and conventional power plants gives little room for optimism.

The environmental impact of thermal power plants, both nuclear and conventional, will affect our lives greatly in the next few years. Neglecting the strip mines and oil slicks; the hazy, acid air; the threat of released radioactivity; power lines across sacred Indian lands; and much more; the environmental impact of thermal pollution alone is going to change our lives. Most of the changes we are not going to like.

[From the Intermountain Observer,  
Jan. 8, 1972]

THE FAST BREEDER—LEAST OF THE EVILS?—  
TECHNOLOGY AND PROFITS ARE CALLING THE  
SHOTS NOW. BUT PUBLIC MUST WEIGH THE  
FACTS AND DECIDE

(Editor's note: This is the last of a series of four articles about the impact of nuclear power production on the environment. The writer, an environmentalist, is also a nuclear scientist for Argonne National Laboratory at the Nuclear Reactor Testing Station in eastern Idaho. The views he expresses cannot be assumed to reflect those of his employer. For back copies or reprints of the series, write The Intermountain Observer.)

Our best hope today for meeting the nation's growing demand for economical clean



energy lies with the fast breeder reactor. Because of its highly efficient use of nuclear fuel, the breeder reactor could extend the life of our natural uranium fuel supply from decades to centuries with far less impact on the environment than the power plants which are operating today.—President Richard M. Nixon.

Environmentalists have also been raising questions that transcend the issues involved in individual plants. The question has been raised, by Michael McCloskey of the Sierra Club among others, whether our society for environmental reasons viewed broadly ought not curb its appetite for energy and for electrical power. It is a legitimate social question. It is not unreasonable to question whether neon signs or even air conditioning are essential ingredients in the American way of life. More fundamentally, it is not unthinkable to inquire whether energy production should be determined solely in response to market demand.—Dr. James R. Schlesinger, chairman, U.S. Atomic Energy Commission.

If we think ahead realistically to the economic and environmental conditions that face us in the decades ahead, the breeder takes on a new significance. It becomes far more than a technology designed to provide incremental improvements in our social and economic system. In a world of natural resources being rapidly depleted and degraded, of an environment perhaps being irreversibly stressed and of societies committed to raise the quality of life of their peoples, such an energy system could perhaps be a key to ultimate survival.—Commissioner William O. Doub, U.S. Atomic Energy Commission.

(By Pete Henault)

The liquid metal fast-breeder reactor, or LMFBR, is really not very different from any other nuclear reactor. It is a fission reactor, like all other nuclear reactors in the country today, deriving its power from the heat of the split atom and using the heat to produce steam which drives a turbogenerator. It does, however, have several important differences.

The term "liquid metal" refers to the fact that a liquid metal, like mercury is used as the primary reactor coolant. The primary coolant is simply the fluid which passes through the reactor and enables the heat of fission to be collected and transferred to the boiler where the steam is produced. Some reactors in use today are gas-cooled but most are light-water thermal reactors meaning that ordinary water is used as the primary coolant. Use of a liquid metal, usually sodium which is molten above 208° F and weighs about as much as water, makes it possible to operate the reactor at a much higher temperature, thereby improving the thermal efficiency of the whole system.

The term "fast" implies nothing about the speed of the reactor but rather refers to the fact that it operates on fast, high-energy neutrons rather than slow, or thermal, neutrons. (Hence fast reactor as opposed to thermal reactor.) Neutrons, remember, are one of the subatomic particles that make up all atoms and keep the fission process going by bombarding and breaking up the heavy uranium and plutonium atoms.

The use of fast neutrons makes it possible for "breeding" to take place.

The only fissionable material occurring in nature is uranium-235, the lighter of the two uranium metals. Uranium-238 makes up 993 out of every one thousand naturally-occurring uranium atoms and is not a fissionable material. Nearly all reactors today use uranium enriched in the lighter, uranium-235 component. The enrichment process requires vast amounts of energy and leaves a lot of waste. It is not very different from using only a rare species of some tree, and only in a certain size, to fuel a wood fire. Obviously, it is not a very efficient way to

use uranium. Nuclear engineers and scientists have long been searching for a way to use the more plentiful uranium-238.

As nature would have it, uranium-238, when bombarded with fast neutrons, undergoes a nuclear change and eventually decays to plutonium, a fissionable material which does not occur naturally. By putting a "blanket" of uranium-238 around a "core" of uranium-235 fuel, enough fissionable plutonium can be recovered from the blanket (over a period of about 20 years) to more than replace the original uranium-235 fuel. Technologists refer to this process as "breeding" and widely publicize the fact that "a breeder reactor can produce more fuel than it consumes."

No one can deny that the fast breeder reactor is one of the man's most ingenious developments. It eliminates the need to use large amounts of energy to concentrate the rare uranium-235, it eliminates the wasting of more than 99 per cent of all naturally-occurring uranium, and it extends the potential lifetime for nuclear reactors as a source of energy from about 300 years to about 30,000 years.

The fast breeder has a number of environmental advantages, too, advantages which many environmentalists have not been recognizing. Allowing more efficient use of the natural resource is of course one. Another important advantage is the higher operating temperature made possible by the liquid-metal coolant. This results in a much higher operating efficiency for the whole plant, as high as today's conventional, fossil-fuel plants, and thereby reduces thermal pollution greatly. Still another advantage is the fact that the release of radioactive effluents is much more easily controlled. President Nixon, in fact, has directed the AEC to design fast reactors such that no radioactive effluents will be emitted and steps have already been taken to reduce such effluents from experimental breeder reactors to zero.

But the always-pessimistic environmentalists are looking at the bad points of the LMFBR rather than the much-publicized good points. As usual, they are about the only ones that are. And while Congressman Craig Hosmer, the power companies, and many other nuclear power enthusiasts, prefer to write them off as "extremists", "disaster merchants", and "soothsayers of doom", this fast-reactor technologist finds a lot of justification for their pessimism!

Plutonium, remember, is the extremely hazardous material that collects in the bones, causing cancer, leukemia, and half-a-dozen other diseases, and takes hundreds of thousands of years to decay. If this plutonium is not contained and kept away from man and his life processes, it could make Earth uninhabitable. If we follow the course that President Nixon has set for us, we can expect, in 30 years or so, to be producing thousands of tons of plutonium annually.

Can we contain all this plutonium and keep it away from man's environment for half a million years? We've never done anything like it before, of course. The Pharaohs did a pretty good job with their pyramids, keeping things out of man's reach for 25 centuries or so. We've done a pretty good job of containing our gold at Fort Knox for 100 years or so. And we've done a pretty good job for the last 30 years of keeping our weapons, some of which are just as harmful as the plutonium from nuclear reactors, from adversely affecting the environment. But half a million years is a lot longer than 30 or 100 years or 25 centuries.

One way in which some of this plutonium might escape into our living environment is through the consequences of a major nuclear reactor accident.

No one knows how severe the consequences could be because we do not yet know what the worst possible accident is. A number of irresponsible journalists and nuclear-power

critics have given the impression that a nuclear reactor can explode like an atomic bomb but this is impossible. A nuclear reactor cannot explode because the fuel is too dilute, just as dynamite or gunpowder, if we mixed it with the right amount of sand, might burn but would be too dilute to explode.

The question of what the worst possible nuclear reactor accident might be has been studied and researched since before the first experimental reactor was conceived on a drawing board. The AEC has probably spent more effort on this aspect, trying to determine the ultimate consequences, and designing reactors to prevent such accidents, than any other government agency has ever spent on any other concern relating to public safety.

Some scientists think the worst possible accident would be one in which the reactor temperature increases rapidly and uncontrollably, causing the primary coolant, or possibly even the fuel itself, to boil, flash to vapor, and eventually make the reactor blow itself apart much as a pressure cooker might blow apart if it becomes too hot. If this thermal "explosion" was great enough to eject fuel components through the structure of the building which contained the reactor, the surrounding area would be contaminated and people in the area might be killed.

Whatever the worst possible nuclear reactor accident is, this environmental writer does not believe it belongs in a discussion on the environmental aspects of nuclear power.

The probability of such accidents happening is so low, or can be made so low, that they will only happen very infrequently. Infrequent reactor accidents, and we believe they can be kept to one serious accident every 100 years or so, are not going to alter our environment or adversely affect our ecosystem.

When we discuss the environmental effects of automobiles, we do not discuss the 50,000 lives that are lost annually. When we discuss the environmental effects of airplanes, we do not concern ourselves with the threat of two Boeing 747's colliding over the Rose Bowl during half-time on New Year's Day. The risk is there, of course, but we look at it as a safety problem rather than an environmental problem and we try to reduce the risk as much as technology will allow us, and then we accept it as a way of life.

We may be wrong, of course; the serious accidents could happen every year or two. If this occurs, then the plutonium and radioactivity leaking to the environment would create an ecological problem. But based on what we know, we just don't think this is a real threat. Many critics of nuclear power do not agree with us.

There are other more probable ways by which plutonium might escape and contaminate our environment. If the time comes when our electrical power comes mainly from the LMFBR, we will have thousands of shipments of plutonium in transit at any time, hundreds of thousands of shipments each year. With so much plutonium in transit and in inventory, can we be sure that there will be an acceptably low number of accidents in which plutonium is permanently lost?

And what about the possibility of diversion by criminal or alien forces? Although plutonium for reactors is too dilute to explode, it can be concentrated and used to make bombs and we therefore have to face the possibility that some unfriendly party will be willing to pay a high price to gain access to it. Can we prevent all this material from getting into irresponsible hands?

We are a pretty responsible nation and it is likely that we can do a pretty good job of preventing plutonium from contaminating the environment. But if we develop the fast

breeder, other nations will follow suit. Can we expect them to be as concerned about the environment as we are?

Another aspect of the fast breeder that we might be concerned about is the effect on radioactive waste. We already know that the permanent storage of nuclear reactor waste is a serious environmental problem. Will the fast breeder make the problem worse?

In a sense, yes. A good deal of the very-long-lived waste consists of plutonium not completely removed during the fuel reprocessing stage. But the used fuel from water reactors contains only the tiniest fraction of plutonium. Used fuel from the breeder will be primarily plutonium and so the waste after reprocessing is bound to have a much greater percentage of plutonium. Whether or not this makes the breeder "worse" environmentally depends on how well we contain the waste and permanently isolate it from the ecosystem. If we contain it all, then it is no worse. If we only contain some high percentage, then indeed, the fast breeder may be a greater environmental threat in this respect.

The Four Corners plant is one of America's larger power plants—2,075,000 kilowatts—more than all the power being generated by Idaho's dams. It is a lot of power from a single plant and it is only one of several new plants in the area either already in operation or under contract. There are the Mojave plant near Bullhead City, Ariz., and the Navajo plant near Page, Ariz. There is the San Juan plant in New Mexico. There are the Huntington Canyon and Kaiparowitz plants in Utah.

The Four Corners plant is near Fruitland, N.M. It is the first of six plants to be completed near the Four Corners region, that part of the United States where Colorado, Utah, New Mexico, and Arizona all come together at a single point. When the last plant goes into operation in 1977 the six plants will have a total generating capacity of about 14,000,000 kilowatts, about 40 times the capacity of Hells Canyon Dam. By 1985 the plan calls for increasing the capacity to 36,000,000 kilowatts. That's about 100 times the capacity of our Hells Canyon Dam.

The radioactivity released from each of these plants will probably meet the AEC standards but, biologically, the harmful effects will be greater than the radioactivity coming from most of today's nuclear plants.

The water needed to cool these plants is staggering: 34,000 acre feet per year for the Four Corners plant alone, 225,000 acre feet per year for the whole complex.

But the valuable southwest water used to cool these plants is only a fraction of the total environmental impact of these six monstrous power plants; the radioactivity released to the environment is only a small footnote at the bottom of a long list. For these six plants are not nuclear plants but conventional, coal-fired plants. From this writer's viewpoint, they are the most environmentally devastating electrical-generating nightmares ever created by man.

The Four Corners plant alone consumes 22,000 tons of coal per day, the equivalent weight of nearly 1,000 Volkswagens every hour. Unlike nuclear plants, the fuel that goes into a coal-fired plant must come right back out. At the Four Corners plant, it comes out as 320 tons of fly ash, 385 tons of acid producing  $SO_2$ , and about 200 tons of nitrogen oxides every day.

The radioactivity released consists of naturally occurring radon gas normally locked in the tons of coal burned every minute. It is very small in quantity, but because the biological effects of radon are much more harmful than the effects from gases of the type released from a nuclear plant, the health hazard is about comparable to a nuclear plant with the same generating capacity. The

Four Corners plant is more than twice as large as today's largest nuclear plants.

Altogether the six plants will bring a profound environmental change for the worse to more than 100,000 square miles of our land in the southwest—our land now advertised by the tourist industry as the Enchanted Wilderness of the Colorado Plateau. The air, water and landscape will be effected, as will the environmental quality of six national parks, 28 national monuments, two national recreation areas, scores of national historic landmarks and state parks, and 39 Indian reservations.

Already the blanket of dirty brown smoke spewing forth continuously, every day, from the Four Corners plant contains more particulate matter than is let loose by all the stationary sources of air pollution in New York and Los Angeles combined. At times the pollution hangs over an area of 10,000 square miles, creating an ugly, smoky haze over the Rio Grande Valley and reaching as far away as Santa Fe and Albuquerque. At other times a thick, filthy plume extends like a wall across the multi-colored desert for 150 miles. This writer had an occasion to see the Four Corners plant recently, with its tons of smoke obscuring the mesas outlined against a setting sun. It was a very depressing sight.

None of this pollution is good for man, of course, nor his animals, nor his soil, nor the intangible things in his life. A number of recent studies, including one by the National Air Pollution Control Administration, provide evidence that a dangerous health situation and damage to vegetation are already facts of life in the area.

To fuel these monstrous plants the power companies are strip-mining coal from the surrounding Indian reservations and from anywhere else they happen to find it. Much of it will come from Black Mesa, a magnificent 3,000 square miles "island in the sky" in northeastern Arizona. The mesa, rising 1,500 feet above the surrounding Navajo Indian countryside, is an arid place, like all the region, and water is a precious commodity. Springs and wells scattered on the mesa top are carefully used by the Hopi to tend their corn and bean fields and by the Navajo who graze sheep and cattle in the north.

The rims of the mesa are black with juniper and pinon. To the Hopi and Navajo it is a sacred land of shrines and spirits where man comes close to unity with nature and the supernatural. It is an awesome and timeless region of solitude, wonder, and beauty not experienced in man's more populated areas. Black Mesa, to the Indians, is their life. "If the mountains are damaged," traditionalist Navajo leaders warn, "the Navajo Way will be doomed."

The power companies, caring more about profits than ancient Indian ways, have moved in and, with the help of the Interior Department and Bureau of Indian Affairs, have convinced the tribal councils to lease their lands for strip mining. Sixty-five thousand acres on the mesa top have already been leased to get at the hundreds of millions of tons of bituminous coal lying in seams up to 8 feet thick near the surface and perhaps up to 65 feet thick a little lower down. With giant drag line and huge buckets that scoop up overburden, piling it in towering ridges of dirt and rocks beside the gaping trenches, the power companies will obtain their coal for the Mojave plant 275 miles away—ten tons of coal every minute, five million tons every year.

#### REMOVING THE WATER

To get all this coal to the Mojave plant, located on the Colorado River near Boulder Dam, where the power companies can find enough water to cool the plant's condensers and then distribute the power via the already-built transmission routes, the coal

is pulverized, mixed with water, and then pumped as a slurry through an 18-inch underground pipeline across Black Mesa and across northern Arizona. The water to make the slurry comes from wells more than 2,000 feet deep in the mesa. It is removed from the Navajos and Hopis underground water table, a source which has taken ages upon ages to build up, at the rate of 2,000 to 4,500 gallons per minute. The Hopis are not just a little bit worried about what may happen if the springs and wells begin to dry up because of all the water being removed for the coal. If the Hopi cannot grow their corn and beans, they will have to leave their present villages. The spiritual base of their existence would disappear.

The Hopis are among the oldest people in the Southwest and they have lived on Black Mesa for centuries, long before the Navajo migrated from the Northwest. For their coal, they will receive about 25 cents a ton, for their water, \$1.67 per acre foot. The Navajos newcomers who have only lived on the mesa for 500 years, did a little better, about \$1 per ton and \$5 per acre foot.

There are many other environmental impacts of the coal-fired conventional plants in the Four Corners region—from the homes that must be moved to make way for the strip mines to the transmission lines that will string like nets across sacred Indian lands—but they are too numerous to list here.

It is easy to speak of the bad points of something or the good points. It is not so easy to put all the good and bad into their proper perspective.

Are nuclear plants bad for the environment? We don't think the Hopi would say so.

We have been discussing these past few weeks the environmental bad points of nuclear power as we see them today and even some of the faults of the AEC which oversees the development of nuclear power. But we have been presenting a very one-sided story. And we have been discussing the bad that is, not necessarily the bad that has to be.

We aren't going to present the good side—the power companies, the AEC, the Congressional Committee on Atomic Energy, the nuclear industry, the chambers of commerce, and a lot of others are doing that.

But there is a good side and anyone who accepts the privilege, or right, to voice a judgment for the public, or even for himself if he is going to use it to make a choice in the ballot box, should accept also the responsibility of looking into that good side. Too many critics of nuclear power have not accepted that responsibility.

On the other hand, we have seen far fewer proponents of nuclear power accept the responsibility of looking into the bad side before they offer all sorts of judgments for the public's benefit.

But apart from the good and bad, and their relation to other goods and bads, there are a whole realm of other questions we ought to be concerned about.

Do we really need all that power? Does more power necessarily mean a higher standard of living? Higher for whom? The power company executives? Us? The Hopi? What is a higher standard of living, anyway? Is the bad that we see an inherent fault of the technology or a fault of the men who control the technology?

If we really do need all that power (and there are good grounds for believing we do not), are the options that the power companies present the only options?

Is the LMFBR a hazard and is its development premature as FOE (Friends of Earth) claims? Yes, it is a hazard but its development is not premature. The first reactor ever to produce electricity, remember, was a fast breeder reactor. The breeder has been studied and researched exhaustively during the past 20 years.

It is an undeniable fact that the U.S. is



running out of power, as Congressman Hosmer claims, and would it be suicidal for the nation not to develop the fast breeder? No, it is not an "undeniable fact" and, in fact, this writer is among the many who deny it. And it would, of course, not be suicidal for the nation to abandon the fast breeder. Congressman Hosmer makes all sorts of judgments for the public without wondering about the bad side.

Is the breeder really our best hope for economic clean energy, as the President has claimed? Yes, if we are talking about the next 30 years, and if we are willing to accept the risk of producing all the poisonous, radioactive waste which may make Earth uninhabitable in a thousand or ten thousand years, then President Nixon is right. The alternatives which promise to provide so-called "clean" energy (they include solar power and fusion power) cannot be developed as soon as the LMFBR. Our own guess is that 30 years, even if we spend the money we ought to be spending, is a reasonable time in which to expect good, usable alternatives.

#### MANY IMPLICATIONS

Producing radioactivity in a nuclear power plant, whether we think of the plutonium for other power plants or the plutonium for bombs, or whether we think of all the fission products and waste that must be "disposed" of, is an awesome responsibility. It raises a long list of social implications that this writer is not willing to pass judgment on. Debating whether or not we should produce the radioactivity in a fast breeder reactor or a thermal water reactor is really not very significant in comparison.

We know we can do a lot of good for mankind, today, by producing the radioactivity while at the same time we are creating the risk of making Earth uninhabitable for future mankind. We must remember, though, that it is only a risk and not a certainty, and that we may anyway be already making Earth uninhabitable by some other means.

A very few technologists and profiteers are making nearly all the decisions today. Thanks to a few environmentalists who are beginning to ask some questions, there might yet be a chance for us all to participate in making the decisions. And maybe if enough of us, with all our different insights, have an input to those decisions, we may even make the right ones.

#### A FOOT IN BOTH CAMPS

(By Sam Day)

Two years ago, when it appeared that Idaho's Middle Snake River was on the verge of being written off as a free-flowing stream in the interests of hydroelectric power production, an *Intermountain Observer* reader wrote a long letter which asked, "why block the nation's deepest gorge when nuclear power is just around the corner?"

The argument, a detailed analysis of the environmental and economic case against further dam construction in Hells Canyon, was considered a novel one in those days. But in recent times it has become part of the arsenal with which environmentalists are stopping dam builders in Idaho and elsewhere.

The letter-writer, Pete Henault of Idaho Falls, went on to become one of the prime movers in the environmental movement in Idaho, both as a writer and an activist. He is president of the Hells Canyon Preservation Council, a director of the Idaho Environmental Council, an active member of the Sierra Club, an occasional witness at congressional hearings on environmental bills and an unflinching cajoler of senators, congressmen and secretaries of the interior.

As a writer and photographer, Henault has pressed his case for environmental sanity through a variety of publications. He has written major articles for this newspaper presenting arguments against the proposed

Lynn Crandall Dam on the Upper Snake River and in favor of a bill by Sen. Robert Parkwood of Oregon to set aside the Middle Snake and its approaches as a national river.

Henault's best remembered journalistic contribution to *The Intermountain Observer* was an illustrated account, last January, of an eastern Idaho rabbit drive. It demonstrated both the futility and the barbarity of such events, and it was reproduced in newspapers and magazines around the world.

Henault's record as a critic of environmental abuses is one of the qualifications he brings to the four-part story which begins this week in *The Intermountain Observer*: the impact of nuclear power production on the world in which we live. Growing national concern over the disposal of radioactive waste and the safety of nuclear reactors has deepened the urgency of the subject. It is a controversy which finds the environmental and nuclear power communities increasingly at loggerheads.

Henault's other major qualification for the task is that he has feet firmly planted in both communities. He is a nuclear scientist whose specialty is the experimental breeder reactor—the electric power producer which lies at the very heart of the controversy.

Born at Hyannisport, Mass., Henault graduated from the University of Idaho in physics in 1961. He went to work at the National Reactor Testing Station in eastern Idaho in 1964 for Bettis Atomic Power Co. (a division of Westinghouse) as a test engineer on the Navy's prototype of the U.S.S. Enterprise reactor. Since 1967 he has been conducting safety-oriented experiments on EBR-II, the nation's only operational fast breeder power reactor, for Argonne National Laboratory.

In this series, undertaken at the request of *The Intermountain Observer*, and timed to coincide with the 20th anniversary of the first production of electricity from the atom, Henault sifts through the welter of conflicting opinion from the Atomic Energy Commission and environmental groups to arrive at an appraisal of the hazards involved in continued nuclear power production. He was assisted in the research and preparation by his wife, De Anna.

[From the Washington Post, Jan. 24, 1972]

#### NUCLEAR POWER: QUESTIONS THAT NEED ANSWERS

The atomic age has been around for more than a quarter of a century now but the vision it has always held out of providing cheap, plentiful, and clean energy has yet to be fulfilled. Nuclear power plants are only beginning to be an important part of the nation's electricity generating complex, and disputes about them seem to be growing as they become more common. These disputes, you might say, themselves generate more heat than light. Yet, some crucial decisions are in the process of being made now which will have great implications for the future so far as this nation's use of its energy resources is concerned.

A few days ago, for example, the State of Pennsylvania asked the Atomic Energy Commission to bar construction of a nuclear plant on an island in the Delaware River 11 miles from Philadelphia. Its complaint is that such a plant would impose too much danger on too many people by being located in so densely settled an area. This complaint, it seems to us, creates questions just as difficult as the one it asks the AEC to resolve. If the plant is too dangerous to be located near Philadelphia, where would it not be dangerous? Is it fair for an area, like Philadelphia, which will be the ultimate consumer of the electricity to insist that the risks involved in its production be placed in another area because fewer people live there? Two quite different and very difficult issues are thus raised by Pennsylvania's action. One involves the amount of danger inherent in nuclear power plants. The other involves the

location of any kind of generating plant—because all of them, regardless of the kind of fuel they use, have some harmful effects on the nearby environment.

Everybody, it seems, wants the electricity that generating plants produce but nobody wants the plants. Southern California Edison has had a terrible time finding building sites because of the protest of environmental or community groups each time one is selected. Yet, if it doesn't get the plants built, it won't be able to supply as much electricity as the residents of Southern California want. One answer, seriously proposed in some circles, is to hold down the rate at which individuals and industries increase their use of electricity. In recent years, that rate of increase has been almost 10 per cent a year. Some of this electricity does go to power things of marginal value, but most of it goes into equipment designed to improve the quality of life (like air conditioning) or to power industry.

As a matter of fact certain of those changes in daily life now being urged to help clean up the air would require even more electricity. Washington's Metro system, for example, will require most of the capacity of one plant. A switch to electric cars, while reducing air pollution sharply, would require much more electricity. What is needed then is a long-range program of allocating sites for power plants on an area basis. Fortunately, Congress is looking into this problem, and the power companies have begun to realize that this process of picking sites must be done in such a way as to balance their own desires against overall community needs. It is also time for the environmental groups to realize that a balancing process has to be developed between the need for electricity and the need for protecting our surroundings.

The safety question raised by Pennsylvania's action is even more difficult to grapple with, but the need to do so has been underlined by two other recent actions. One is the AEC's announcement of plans to build the first large fast breeder reactor somewhere in the Tennessee Valley Authority's generating system. This kind of reactor is inherently more dangerous than those now in use but its potential in terms of providing the electrical power the atomic age has always promised is far greater. While the AEC is convinced the danger can be made negligible, some scientists disagree. Related directly to this is a law suit filed by several environmental groups in an effort to split the AEC—organizationally—in two. They contend that this Commission cannot constitutionally be given the task of both promoting the use of atomic energy and setting the safety standards under which it is to be used. Underlying this case is the fear that the AEC will not set adequate safety standards if such standards would interfere with expanding the use of atomic power.

We don't purport to have answers to these questions, but we do believe they ought to be settled only on the basis of a wide and intelligent public discussion of them. Much of the current distrust of the AEC, the power industry and atomic energy itself has arisen because questions such as these have been thought either too sensitive or too difficult for public debate. Since the whole atmosphere of the AEC has changed considerably in the last few months, we look forward to having these hard questions aired and argued in public—not settled in quiet courtrooms or hearing rooms. Too much is at stake in terms of the environment and the industrial potential of the country for them to be left solely to the experts or litigants.

#### EULOGY TO THE LATE HONORABLE WILLIS A. ROBERTSON

Mr. ALLEN. Mr. President, news of the death of Hon. Willis A. Robertson, one of Virginia's great U.S. Senators, on No-

vember 1, 1971, left me with a feeling of personal loss and profound regret.

It was not my privilege to have served with Senator Robertson during his long Senate tenure which extended from November 6, 1946, to January 3, 1967. However, Willis Robertson was drawn back to the Senate on many occasions by the strong bonds of lasting friendships and from time to time he met with those of us who join together at Wednesday morning prayer breakfasts. He was always warmly and affectionately welcomed and it was here that I came to know and to admire that distinguished gentleman and statesman.

Mr. President, Willis Robertson devoted a long and fruitful life to the service of his country and to his beloved State of Virginia. I came to see in him the extraordinary qualities of character which, throughout the history of our Nation, have characterized political leaders which the great State of Virginia has contributed to our Nation. For Willis Robertson was a true son of Virginia, steeped in her proud traditions and true to her high ideals. He garnered an impeccable record of selfless service such as to make proud the people of Virginia and the Nation.

What a distinct honor it was for him to be chosen by the people of Virginia to succeed and to pick up the reins from the hands of the great Carter Glass in the U.S. Senate, and what an honor it was that he was privileged to work in close harness with his close friend, the great and beloved Senator Harry Flood Byrd, father of our distinguished colleague (Mr. BYRD).

Mr. President, the parallels in the political lives of Senator Willis Robertson and Senator Harry Flood Byrd are indeed remarkable. Both were born in Martinsburg, Berkeley County, W. Va.—Willis Robertson on May 27 and Harry Byrd a few days later on June 10 of the same year—1887. Both served in the Virginia Senate—Harry Byrd from 1915 to 1925 and Willis Robertson from 1916 to 1922. Both began their congressional careers on March 4, 1933, Senator Byrd in the U. S. Senate and Senator Robertson as a Representative in the 73d Congress. He served continuously in that capacity until his election to the Senate in 1946 to fill the unexpired term of Carter Glass and served until January 3, 1967. In the meantime, Senator Byrd served continuously in the U.S. Senate until his resignation in 1965.

Mr. President, the institution of the U.S. Senate as well as the State of Virginia and our Nation have been vastly enriched by the life and service of Willis Robertson. On behalf of the people of Alabama, I offer this humble tribute to his memory and extend condolences to his family and loved ones.

#### TRIBUTE TO DR. PHILIP E. MOSELY

Mr. DOMINICK. Mr. President, I was deeply saddened to learn of the passing of Dr. Philip E. Mosely on January 13, 1972.

Dr. Mosely spent most of his career in the academic field, but he also played a

major role in the foreign policy community. He was called the father of Russian studies in this country by Marshall D. Shulman, the current director of the Russian Institute at Columbia University.

I was privileged to have known Dr. Mosely in my capacity as an advisory member of the board of the Center for Strategic and International Studies, where he served as chairman of the research council and, until his retirement just over a year ago, as chairman of the executive committee.

Dr. Mosely made outstanding contributions to the center and to the country, and the center will deeply miss him and his expertise on the Soviet Union, now so formidable with its ever expanding strike forces.

I ask unanimous consent that Dr. Mosely's detailed obituary be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

JANUARY 14, 1972.

MY DEAR COLLEAGUES: With great sadness, I have to inform you this morning of the passing of Dr. Philip E. Mosely yesterday, January 13. In case it escaped your attention, I am enclosing a xerox copy of the rather detailed obituary which appeared this morning in the *New York Times*.

As you will remember, Dr. Mosely relinquished his responsibilities with the Center just over a year ago to undergo surgery, and we had hoped that a period of rest and convalescence would have made it possible for him to return to full strength and his many scholarly responsibilities.

Professor Mosely's contribution to the Center was great. A distinguished scholar, he approached his work with unusual dedication and care. Many of the successes of the Center bore the mark of his invaluable contribution, and he has been sorely missed.

As the Chairman of the Research Council and as Chairman of the Executive Committee during his last association with the Center, his leadership in the affairs of the Center left a record of performance that will long be remembered.

I felt that close associates of the Center would like to have this word, as sad as it is, in case you missed it in the public announcement.

Yours sincerely,  
Ambassador JOHN M. STEEVES,  
Chairman.

DR. PHILIP E. MOSELY, SCHOLAR OF SOVIET AFFAIRS, DEAD AT 66

(By Israel Shenker)

Philip Edward Mosely, Adlai E. Stevenson Professor of International Relations at Columbia University and a leader of Russian studies in this country, died yesterday morning at his home, 29 Claremont Avenue, after a long illness. He was 66 years old.

As a founder (1946) and director (1951-55) of the Russian Institute at Columbia, Dr. Mosely was instrumental in establishing that institution as a center of advanced scholarship.

Most of his career was in academic life, but he spent many years—officially as a member of the State Department, unofficially as a senior figure in the foreign policy community—advising on affairs of state.

The Russian Institute's current director, Marshall D. Shulman, called him "the father of Russian studies in this country." There were some grandfathers as well, but Dr. Mosely did a good deal more than most for students, encouraging them, even writing

personal checks to tide them over personal difficulties.

He was a small, dark-haired man of normally equable temperament, but occasionally he could be roused to striking exhibitions of temper, as happened when an offhand allusion by the scholar E. H. Carr to American motives roused his fury.

#### STUDIED THE NUANCES

Dr. Mosely was a charter member of that band of scholars, called Sovietologists or Kremlinologists, who are expected to do more with less than perhaps any other specialists save archeologists of remotest prehistory. Prof. David Joravsky of Northwestern has defined Kremlinology as "the effort to do archival research in Soviet politics without access to the archives."

From subtle shifts in the way leaders are addressed or applause recorded, from dribbles of doctored statistics, from the very mien of a man glimpsed through the miasma of newspaper reproduction, these archivists without archives are expected to elaborate political theories and venture daring predictions.

Like his colleagues, Dr. Mosely had to contend with the subordination in the Soviet Union of reported fact to official political judgment.

Others spread themselves thin in works of massive scholarship; he was more the man of the article and the reviews. As a teacher, he helped turn thousands of students to the elusive enterprise of discerning and ordering the facts of the past and of influencing the policies of the future.

Andrew W. Cordier, dean of the School of International Affairs, called Dr. Mosely "one of the most thorough and knowledgeable members of the entire Columbia faculty."

In a statement Dr. Cordier said: "He regarded teaching, student counseling, and his uniquely effective relationship with students as the top priority of his schedule."

But he was capable of extending his strictures and warnings to any target, however highly placed. In a review in the *New York Times Book Review* in 1961 he took Nikita S. Khrushchev, Premier of the Soviet Union, to task for having failed to understand "the forces of freedom," and said it was urgent for the Communist leader "to broaden his perspective."

After earning bachelor's and doctorate degrees from Harvard University, Dr. Mosely—with time out for research in the Soviet Union and the Balkans—taught at Princeton, Union College, Cornell and Hunter. In 1940 he joined the Columbia faculty but spent 1942 to 1946 in the State Department.

An adviser to Secretary of State Cordell Hull at the Moscow Conference in 1943, he was a political adviser in the United States delegation to the European Advisory Commission (1944-45), to the Potsdam Conference (1945) and to the Council of Foreign Ministers (London and Paris, 1945-46). He was United States representative on the four-power Commission for Investigation of the Yugoslav-Italian boundary (1946). The Commission rendered a divided verdict, the West on one side, the Soviet Union on the other.

After returning to Columbia as a professor of international relations, Dr. Mosely left once more, in 1955, to become director of studies at the Council on Foreign Relations. He returned to Columbia in 1963 as director of the European Institute and as associate dean of the School of International Affairs.

He was the author of "Russian Diplomacy and the Opening of the Eastern Question in 1838 and 1839" and of a collection of articles entitled "The Kremlin and World Politics," and he edited "The Soviet Union, 1922-1962."

Under his chairmanship the Joint Committee on Slavic Studies, in 1949, began its publication of a weekly Current Digest of the Soviet Press.

Dr. Mosely was a talented, even facile



linguist who spoke more than half a dozen foreign languages. It was said of him, for example, that "he learned Bulgarian going through the \* \* \* in a train."

He is survived by his widow, Ruth Bissel Mosley; two daughters, Mrs. John (Ann) Lesch of Princeton, and Mrs. Philip (Patricia) T. Jackson of Oberlin, Ohio; a brother, James M. Mosely of Boston; a sister, Mrs. Edward (Eleanor) Rust Collier of Harrisville, N.H., and one granddaughter, Laura Jackson.

The interment, in the family plot in his home town of Westfield, Mass., will be private. A memorial service will be held on Feb. 5 at 3 P.M., in the auditorium of Columbia's School of International Affairs, 420 West 118th Street.

#### PREDATORY ANIMAL DAMAGE RESEARCH

Mr. McGEE. Mr. President, back in December, my Subcommittee on Agriculture, Environmental and Consumer Protection held 5 days of hearings on the subject of predatory animal control. Although those hearings were thorough, I arrived at no definite conclusions by the time they were recessed. What was very apparent to me was the mass of conflicting statistics and data generated by the witnesses from both the public and private sectors concerning such elemental questions as the numbers of predators, the extent of sheep and lamb losses, and solid information on which to base a judgment of the predators' habits.

Despite the fact that the Federal Government's so-called animal damage control program is more than 40 years old, there were simply no reliable statistics in some areas. On other questions there was a wide gulf separating the data presented by different sources, whether representatives of Government agencies, conservation organizations, or associations of wool-growers were the witnesses. Stockmen reported massive depredations by predators, and conservationists charged these figures were wildly exaggerated. Government witnesses could not satisfactorily reconcile these great differences. In short, it appeared that the research necessary to do so had never been undertaken.

Over the years, of course, the Federal Government, States, and stockmen have expended truly great sums in carrying out the predatory animal control programs. That program has been, I believe it fair to say, predicated on the thesis that predators do cause severe losses on the range. I cannot say that thesis has been proved or disproved once and for all.

In all of our testimony over the 5 days of hearings in December, Mr. President, the subcommittee was fortunate to hear from one witness whose approach to the problem appeared to promise significant information predicated, not on a notion that predators were "good" or "bad," but on dispassionate and scientific inquiry. The witness was Sander Orent, director of the Predator Ecology Laboratory of the University of Michigan. Interestingly, I would note for my colleagues that the testimony offered by Mr. Orent resulted from the relatively small investment of \$25,000 by the National Science Foundation in a research effort conducted by

both graduate and undergraduate students from a number of institutions and a variety of disciplines.

For myself, I found it somewhat dismaying—but also, in a sense, refreshing—that a band of 14 students with little in the way of operating funds had accomplished more significant research than larger and richer agencies, public and private, had over four decades.

Mr. President, Mr. Orent's testimony was carefully reasoned. In a sense, it points the way for future efforts to resolve the question of predatory animal control. That is an effort I intend for the subcommittee to continue in the hope of finding a workable solution that will serve all segments of the public.

I ask unanimous consent that Mr. Sander Orent's statement before the Senate Appropriations Subcommittee on Agriculture, Environmental, and Consumer Protection on December 16, 1971, be printed in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

#### STATEMENT OF SANDER ORENT

My name is Sander Orent, director of the Predator Ecology Laboratory of the University of Michigan, a research organization funded by the National Science Foundation under the Student Originated Studies program. We are an interdisciplinary team of graduate and undergraduate students from a multitude of institutions and a variety of fields, including Ecology, Wildlife Management, Human and Veterinary Medicine, Biochemistry and Zoology.

This past summer I and fourteen others took to the field to investigate the problem of predator control. Our previous searches through the literature assured us that there was little if any research available on the actual impact of predators, particularly the coyote, on domestic sheep bands in the West.

In spite of the increasing frequency of heated debates as to the efficacy and safety of various predator control measures, when the question arises of why kill predators in the first place, no one is able to point to scientific data actually documenting predator kill numbers. Stockmen report massive depredations on their stock by coyotes, and conservation groups accuse them of gross exaggeration. Of most relevance to these hearings, however, is the primary operating thesis of the Division of Wildlife Services of the Bureau of Sport Fisheries and Wildlife—that coyotes (and other predators) do in fact cause severe and economically crippling losses to stockmen, and are the major contributors to domestic sheep mortality. To the best of our knowledge, no one, including this agency, has in the past made any attempt to validate or refute this claim.

This, then, was our goal.

When confronted with the idea of our research, numerous land management agencies, upon whom often falls the greatest burden of reconciling conflicting interests, and who must bear the brunt of the backlash resulting from decisions not wholly acceptable to all parties, were intensely interested, and gratified that they might now have some data upon which to base their decisions. These organizations included the National Forest Service, the Bureau of Land Management, the National Park Service, and many non-governmental agencies, such as the Colorado Woolgrower's Association, the Sierra Club, Defenders of Wildlife, etc. Numerous individual ranchers appeared anxious to receive our input into the problem, as well.

On the basis of this interest, a secondary goal was established for the project, namely

to issue recommendations on the various control methods now in use, and to attempt to establish criteria for implementation of these, and any other alternative forms we were able to envision.

We set about attempting to discover causes of sheep mortality on the Western range by first selecting an area that fit the following four characteristics:

(1) The area must be uncontrolled in large part for coyotes—this defined as an area where sodium fluoroacetate (1080), thallium, and other poisons were not in use. Some control, it was found, is inevitable in all regions; acceptable levels were the use of steel traps on an occasional basis, or hunting for sport of the major predators.

(2) The area must have high sheep and predator densities. These predator densities were estimated a priori by conversations with local inhabitants.

(3) There should be a reasonable number of standing complaints about stock loss to predators by the local inhabitants.

(4) The area must be suitable for implementation of proposed experimental design.

Essentially, then, what we desired was an area where demands for control were high because of alleged high sheep loss, but the service was not permitted or unavailable.

The study area selected was in Northwestern Colorado, in the high mountain country. Much of the region lay within the Routt National Forest, where numerous sheep allotments were held from the period of June 1 to September 1, the duration of our study.

Appropriately 2,500 ewes and an equal number of lambs were maintained under observation throughout this period. All were introduced to the allotments after our arrival, and removed just prior to or a few days following our departure. Three distinct bands of sheep were studied, two on adjoining National Forest allotments, one on private land. Loss claims in previous years ranged from 35 head per day in one instance to 10–20 percent of the lamb crop in the others. The National Forest Service had not permitted control of this area for the last three years, and did not institute any such program during our study period.

In addition to observing these three bands of sheep, we attempted to broaden our perspective by making an agreement with regional officials of the National Forest Service, the Bureau of Land Management, and several sheep ranchers over a wide area, that in the event of large numbers of kills within their jurisdiction or upon their sheep, we would be contacted and permitted to necropsy carcasses and evaluate the situation.

Techniques involved use of high power day spotting scopes and army Starlight Night observation devices to maintain long distance surveillance of the sheep bands. In addition, a coyote census effort was undertaken, as well as scat collections and analyses, the results of which are before you.

I must of necessity place a constraint upon the interpretation of the following material; the data collected are for a highly localized area, and must be taken in such a context. I will return to this point later.

One of our earliest findings was that observation of range sheep is a difficult undertaking—due primarily to their scattering tendencies. However, we did manage to log an enormous number of man-hours of effective observation, and supplemented this with horseback and on foot carcass searches. The results are before you in Table I. The primary cause of sheep deaths was not, in fact, a function of predation; in fact, it ranked equally and in some cases was greatly exceeded by disease and a phenomenon we have chosen to call "displacement." This is simply a situation, often repeated throughout the summer, of sheep straying and remaining lost.

Predator losses did not approach previous claims—however, actual total loss did. Why, then, the discrepancy? Two reasons:

(1) The many displaced sheep reported to us by herders this summer may well have been attributed to predators, for at times the only method a rancher has of assessing his loss is by subtracting the number of sheep retrieved at the end of the season from the total turned out. It appears to us that the coyote may in fact be a catch-all excuse for unaccounted herd loss or the inefficiency of the herder. Herders mentioned that their bosses might make at best a cursory effort to retrieve strayed sheep or those stranded at earlier bed grounds. Further, some local residents reported sighting small groups of sheep on the mountain long after the bands were withdrawn from the allotment.

Though our actual experience with this type of displacement loss was limited, the implications are clear, and we feel large numbers of sheep grazed on areas of this nature are lost in such a manner. In fact, our data suggest that, at least locally, such displacements constitute an overwhelming proportion of total loss. It is perhaps natural for a rancher to blame missing sheep on predators, but we believe there is good cause to question such assertions.

(2) The discovery of a few predator killed carcasses may lead a rancher to extrapolate numbers of slaughtered sheep as in the instance where a rancher reported loss to us of 100 sheep to a bear. Further investigation showed that he had in fact seen only three or four carcasses, and assumed that "if there are four dead sheep here, there must be a hundred scattered over the mountain." An intensive carcass search involving eleven of our personnel for two days revealed only one carcass—it was coyote killed. The rancher's herder stated he had only seen three or four. Yet the rancher's claims was sufficient justification for official authorization of a bear hunter, though the damage was slight, unseen and unproven. If you look at the third column of Table I, you will see this rancher's total loss, numbering 12.

We have two justifications for extrapolating our mortality data to other areas, and broadening the implications of our research:

(1) Terrain and management practices appear to be quite similar over much of the high mountain summer range, at least in Colorado, and hence we believe that displacement as a cause of sheep mortality is in fact a common phenomenon.

(2) By maintaining contact with many sheep ranchers and local land management agencies we were able to indirectly follow many operations over a wide area throughout the summer. Our repeated requests for reports of predator damages from any of these parts met (significantly) with no response. Therefore, we must infer that there were few if any instances of significant predation losses over much of the northwestern Colorado sheep ranges this summer.

We do not mean to infer that predators in any instance do not cause significant mortality to range sheep. There may in fact be instances in which predation is severe enough to economically destroy the rancher, however, we were unable to document any such and hence believe that these are rare occurrences.

Occurrences such as the aforementioned bear incidents, in which the rancher's arithmetic was shoddy at best, coupled with the actual fact of numerous sheep turning up missing at season's end may give insight into the genesis of the high predator loss claims reported by some operators. Therefore, we find serious cause to question the assumption that coyotes are in fact responsible for large numbers of sheep deaths, but feel rather that much mortality may be due to management practices.

However, the active role of the predator in domestic sheep loss is difficult to state precisely. We do know that coyotes kill sheep. Their reasons for doing so are at times

clearly for food sources, and at other times obscure at best.

The next point which merits some attention is the question of whether sheep killing is a universal activity among coyotes. As far as we could ascertain by observation, kills were perpetrated by 2-3 individuals out of a considerably larger predator population within hunting range. One dramatic incident involved an animal who killed four sheep and was later trapped. It was found that this coyote was severely incapacitated by what seemed to our veterinarian to be a previously ingested sub-lethal dose of thallium poison. This was tentatively confirmed by a poison analysis laboratory. After her demise, killing ceased. Due to poor dentition and widespread systemic lesions, it is quite possible this coyote was unable to obtain food in another manner. The low incidence of kills in both Moore's and the Circle A bands concomitant with great amounts of howling activity and numerous scats in these allotments lead us even further to suggest that killer coyotes are true miscreants and are the exception rather than the rule.

#### ATTITUDES, OPINIONS, AND RECOMMENDATIONS ON PREDATION LOSS AND CONTROL—PART II

Throughout the course of the summer, rapport was established and maintained with several sheep ranchers throughout the area whose operations varied in size from 350 lambs and ewes to well over 8,000.

It is of interest to note the conflicting nature of the views held on predation by the small and large operators. (A small operation is defined as less than 1,000 ewes and lambs.) There was a strong concurrence of opinion among small ranchers that predation damage was caused primarily by one or two local coyotes, the rest playing no role whatsoever in their losses. Many of them felt that a well tended herd has greatly reduced losses from those under less careful management. Further the majority of these individuals were opposed to the use of broad spectrum poisons and were of the opinion that specific control through use of rifles or steel traps was effective in reducing the predation loss.

The large ranchers were quite diametrically opposed to this view and made such statements as, "Without 1080 (i.e. sodium fluoroacetate), our outfits would go broke. It is this poison that has saved our lives." On the whole, the large operators feel that all coyotes are killers and that they must be largely eliminated in order to reduce stock loss.

#### DOLPHINS: ANOTHER ENDANGERED SPECIES

Mr. PERCY. Mr. President, one area of our ocean's ecology which has generally been ignored, is the one concerning marine mammals. In February, the Senate Commerce Committee will hold hearings on S. 1315, the Ocean Mammal Protection Act; other bills dealing with this conservation issue have been introduced in both the House and Senate.

It is in the light of this growing concern that I noted with special interest, and would like to share with my colleagues, the excellent article by Lewis Regenstein which appeared on January 11 in the Washington Post. The writer is the Washington coordinator for the Committee for Humane Legislation, a group organized to help conserve wildlife and save endangered species.

Mr. President, I ask unanimous consent that the article entitled "Dolphins and Porpoises Face Threat of Extinction" be printed in the RECORD.

There being no objection, the article

was ordered to be printed in the RECORD, as follows:

#### ABUSED BY THE TUNA FISHING INDUSTRY—DOLPHINS AND PORPOISES FACE THREAT OF EXTINCTION

(By Lewis Regenstein)

Dolphins and porpoises are among the most intelligent and highly evolved of all the world's creatures. It is easy to see why these friendly and fascinating animals have captured the imagination and interest of a large segment of the American public, for they have become the subject of countless movies, television programs, and children's stories, as well as the star attractions at oceanariums. Unfortunately, they have also become the major victims of a new type of fishing technology invented and utilized by the U.S. tuna industry; and in recent years, over a million dolphins have been killed by U.S. tuna fishermen. As a result, schools of dolphins and porpoises are decreasing in size and numbers at an alarming rate; and several species of these animals may shortly be threatened with extinction.

There are about 80 different types of dolphins and porpoises, and they belong to the same biological family as the whales, the mammal order *Cetacea*. These animals exhibit many qualities that we like to think of as "human": they are warm blooded, air-breathing mammals which nurse their young and usually bear a single calf every three to four years.

Man has traditionally enjoyed a friendly, cooperative relationship with dolphins; and in some areas such symbiotic arrangements, celebrated in local folklore, still exist. Some aboriginal tribes living along the coastlines of Australia, New Zealand, and the Mediterranean have for generations utilized the help of dolphins to drive fish into their nets. Naturalist Tom Garrett, a wildlife consultant for Friends of the Earth, has described how tribes in the Amazon basin cultivate the friendship of fresh water dolphins to protect them against such dangers as piranha fish.

Some natives reportedly refuse to enter the water without first "calling" a friendly dolphin by knocking on the side of the boat. Moreover, the countless sea legends of dolphins saving the lives of drowning people may have some scientific basis, since these animals instinctively swim under their young and buoy them up to the surface so that they will not drown during their infancy period.

The ancient Greeks had a deep and frequently awed appreciation for dolphins. Aesop, writing some 600 years B.C., made favorable references to these animals; and Oppian, in the second century A.D., called the killing of dolphins "an offense to the gods . . . as execrable as the murder of a human." Pliny the Elder has described how the Greeks used dolphins to lead them to schools of fish and then shared their catch with these friendly cetaceans. According to him, the dolphins even waited in the area until the following day, to be rewarded for their efforts with bread dipped in wine.

Aristotle has written that "this creature is remarkable for the strength of its parental affection"; and females do indeed show great concern for their young, nursing them until they are about 18 months of age. This mother-young relationship lasts for several years, and dolphins 4 to 6 years old have been known to seek out their mothers from a group when they become tired, sleepy or frightened. Adult dolphins also exhibit strong protective traits towards one another; and the killing or capture of one sends a shockwave of trauma through the entire herd.

Scientific studies of dolphins have confirmed their extraordinary intellectual capabilities. The brain of the dolphin is quite convoluted, even more so than that of man. Moreover, Colin Taylor of the Port Elizabeth, South Africa, oceanarium has studied adult dolphins teaching their young and believes that the infants learn close to 1,000 "words."



The U.S. Department of Defense has also made extensive studies of dolphin intelligence, primarily for such things as locating sunken ships and in anti-submarine warfare projects. (Some dolphins even developed ulcers from the strain of learning their missions!) In one such experiment, a female dolphin, using its sonar system, has learned to differentiate between copper and aluminum plate by echo ranging.

Interestingly, the Soviet Union not only studies dolphins but has also banned the killing or capture of these animals; the Minister of Fisheries, Alexander Ishkov, calls them "marine brother to man." In urging that worldwide protection be accorded these creatures, Ishkov pointed out that "the teeth of a dolphin could turn him into a dangerous enemy. But, no dolphin has ever attacked or molested a man, even in self-defense."

Yet these fascinating creatures are rapidly being wiped out, in large part by the American tuna fishing industry. The fishing practices in U.S. tuna fleets are similar to that of the ancient Greeks in that dolphins are used to locate and follow schools of tuna. However, after leading the fishermen to the tuna, the dolphins are entrapped in the tuna nets and killed. In 1970, in one area of the Eastern Tropical Pacific, between 250,000 and 400,000 dolphins are estimated to have perished in the huge "purse-seine" tuna nets which only recently came into widespread use. These nets sometimes entrap as many as 2,000 dolphins at a time along with the yellow-fin tuna with which they are usually found. After being netted, the dolphins usually swim about wildly in a desperate effort to escape. They then huddle together "singing" in one corner of the net; those that instinctively "sound" or dive to the bottom usually become ensnared in the meshing and drown. Other dolphins become so frightened that they go into a state of shock and also drown. The rest make little attempt to jump out of the nets and escape, since they will not, as a rule, abandon their infants or desert a fellow dolphin that seems to be injured or in distress. The majority of dolphins killed in this manner have been females and infants, primarily of the spinner (*Stenella longirostris*), spotter (*Stenella graffmani*), and common dolphin (*Delphinus delphis*) species.

The result of these tuna fishing operations has been a serious reduction in the numbers and composition of the dolphin schools, and they are becoming much harder to approach than in the past. Many scientists concerned with this problem fear that the above types of dolphin may soon face a very real danger of extinction, particularly since Mexico, France, Spain and fleets operating under the Panamanian flag are increasingly turning to purse-seine technology. Moreover, with the rapidly approaching extinction of the great whales, dolphins and porpoises may well become an economically feasible (albeit temporary) substitute source for the products of the larger whales, particularly since they are already being "harvested" in such extraordinary numbers. The Japanese, for example, have already established a dolphin "fishery" and in 1970 are estimated to have "taken" some 200,000 of these animals.

The powerful tuna industry has been vigorously lobbying in Congress in an attempt to exempt itself from pending legislation which would protect ocean mammals. While claiming (without convincing evidence) that new nets and techniques have been developed which will reduce dolphin mortality, the industry has been successful in obtaining legal permission to continue their wasteful fishing methods. A marine mammal "protection" bill, originally introduced by Rep. Glenn Anderson (D-Cal.), whose district includes the port of Los Angeles where most of the tuna boats are based, was reported out of Rep. John Dingell's Wildlife Conservation Subcommittee in December, 1971. The act

contains provisions which give the Secretary of Commerce broad discretion to allow the tuna industry to continue killing dolphins, including the use of "general" blanket permits which may be issued to the fishermen for the "taking" of these animals. Such language was reportedly insisted upon by the Nixon administration, acting through the Commerce Department and the Republican members of the subcommittee, whose senior member, Rep. Thomas Pelly (R-Wash.) represents a district which includes the builders of the tuna fleets as well as many Commerce Department bureaucrats based in Seattle.

Representative David Pryor (D-Ark.) and other congressmen plan to offer strengthening amendments to this bill when it comes up for a vote this month or next. However, the Senate has not yet taken any action on the ocean mammal legislation pending before it; and Senator Ernest Hollings (D-S.C.) subcommittee of the Commerce Committee has so far refused to even schedule hearings on these bills. In the meantime several conservation groups are threatening to launch a boycott of tuna products unless the industry takes immediate steps to solve the problem.

Because of the limitations of human intelligence, man may never perceive the real nature, the true significance, of these unique creatures that he is so needlessly destroying. A hint of this vast and untapped wealth of knowledge is contained in the writings of a Russian delphinologist, Professor Yablakov:

"Dolphin societies are extraordinarily complex, and up to 10 generations coexist at one time. If that were the case with man, Leonardo Da Vinci, Faraday, and Einstein would still be alive . . . Could not the dolphin's brain contain an amount of information comparable in volume to the thousands of tons of books in our libraries?"

Dolphins play an integral if little understood role in the health and stability of the oceans' ecology—ecosystems that are fundamental to the survival of man's own environment. If we allow selfish men to destroy or alienate the dolphin before we have had a chance to learn what it can teach us, then we will compound the inherent evil of human nature with a foolishness which may, in the end, hasten our own doom.

#### TEST BAN RESOLUTION ENDORSED

Mr. KENNEDY. Mr. President, I recently introduced Senate Resolution 230 calling for a new diplomatic initiative by the United States to seek a comprehensive nuclear test ban treaty. The resolution also urges the President to announce a moratorium of underground nuclear weapons testing to remain in effect so long as the Soviet Union abstains from testing.

I believe it is time to conclude negotiations that began 9 years ago. We pledged at the time of the Partial Test Ban Treaty to pursue negotiations leading to a comprehensive nuclear weapons test ban treaty. Five years later we reaffirmed that pledge in the Nonproliferation Treaty.

In 1963, military concerns about maintaining our deterrent and technological concerns about verification prevented the conclusion of a comprehensive treaty.

Today, those concerns no longer are valid. Our deterrent is totally adequate against any strategic threat. Any change therefore in the nuclear balance of power is likely to produce less security rather than more security.

Also, continued testing increases the

possibility of a breakthrough in weapons technology which would permit a truly cheap nuclear weapon to be developed. Such a development would encourage smaller nations to develop nuclear weapons, increasing the risk of nuclear accidents.

Perhaps equally important is the impact of uncontrolled testing on any strategic arms limitations agreement. A ban on testing would make it unlikely that any qualitative change in warhead development could affect the parity written into a SALT agreement. For instance, the inability to undertake extensive testing would make it unlikely that the Soviet Union could deploy a second generation MIRV.

Thus, a comprehensive test ban treaty would do the following: First, it would act to assure the maintenance of our deterrence; second, it would prevent nuclear proliferation; and third, it would support and strengthen any SALT agreement.

The administration has also repeatedly affirmed its desire for a test ban if adequately verified.

In this regard, recent developments both in seismological detection and in satellite intelligence-gathering provide the rationale for pursuing new negotiations without demanding the same level of onsite inspection as in 1963.

There have been numerous scientific reports of late noting our increased capacity to detect underground nuclear explosions and to distinguish them from earthquakes. I ask unanimous consent to place in the RECORD articles by Walter Sullivan of the New York Times and by Jack P. Ruina of Science on this subject. It is particularly noteworthy that Mr. Ruina, former head of the Pentagon's Advanced Research Projects Agency, stated in his article:

The improvements in seismic detection reduce substantially the need for on-site inspection. The now manifest technical limits to the effectiveness of on-site inspection further reduce its significance both as a means of verification and as a deterrent to treaty violations.

Thus, he adds:

Now on-site inspection seems hardly relevant to the important considerations involved in assessing the risks and benefits of a CTB.

With verification no longer the obstacle that it was 9 years ago, I believe the United States has the opportunity to remove past obstacles to a comprehensive test ban treaty.

In that effort, my resolution proposes that the President announce a moratorium on U.S. underground nuclear testing so long as the Soviet Union abstains from testing.

It is my hope that such an initiative will provide the same impetus to negotiating a comprehensive agreement as President Kennedy's action 9 years ago. Two months after announcing that moratorium, the two nations signed the partial test ban treaty.

I believe it is important to note that my resolution has received impressive support from some of the leading figures in American arms control activities of the past decade.

Thus, I ask unanimous consent to place in the RECORD a telegram supporting my resolution from Marvin L. Goldberger, chairman of the Federation of American Scientists and a former Chairman of the Strategic Weapons Panel of the President's Science Advisory Committee; Adrian Fisher, former Deputy Director of the Arms Control and Disarmament Agency under Presidents Kennedy and Johnson; Morton H. Halperin, former Deputy Assistant Secretary for Arms Control and Policy Planning under President Johnson and senior staff member of the National Security Council under President Nixon; Franklin A. Long, former Assistant Director for Science and Technology of the Arms Control and Disarmament Agency; George Rathjens, former Deputy Director of ARPA; Herbert Scoville, Jr., former Deputy Director for Science and Technology of the Arms Control and Disarmament Agency; and Herbert F. York, former Director of Defense Research and Engineering under Presidents Eisenhower and Kennedy.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[From the New York Times, Jan. 30, 1972]

**TEST DETECTION: HOW TO TELL A QUAKE FROM A BLAST**

(By Walter Sullivan)

More than a decade ago Soviet and American experts in seismology—the study of earth tremors—sat down in Geneva to explore possible methods for policing a ban on testing nuclear weapons underground. The Americans presented data from earthquake monitors of that period to show that it was impossible to discriminate reliably between earthquakes and nuclear explosions. Consequently the United States insisted on being allowed to inspect places in the Soviet Union from which "suspicious" seismic waves had originated. The Russians refused and ever since the issue of on-site inspection has stood in the way of a total ban on nuclear testing.

But today methods for discriminating between the tremors induced by explosions and those caused by earthquakes are much more sophisticated. And as evidence by a number of analyses published in scientific journals in recent weeks, such as one in *Science* co-authored by Jack P. Ruina, former head of the Pentagon's Advanced Research Projects Agency, there appears to be a general conviction among specialists that the problem should no longer stand in the way of a total ban on nuclear explosions. The one remaining obstacle, they say, is political.

The basis for the scientific claims is rooted in a new technique that makes it possible, at remote stations, to discriminate between tremors induced by an explosion and those resulting from a natural earthquake. The method is considered reliable for any explosion large enough to play a role in changing the "balance of terror" of the nuclear powers.

Earthquakes and explosions generate different tremor patterns. When something jostles the earth, be it the rupturing of rock in an earthquake or an explosion, two classes of waves are generated: body waves and surface waves. The surface waves are analogous to those that radiate on the surface of water when a stone is dropped into a pond. The body waves are like those that travel through the body of the water, startling fish at even the greatest depths.

It has been found that explosions differ from natural quakes in being relatively inefficient producers of surface waves. Thus at

a distant station it is possible to determine the nature of an event by comparing the strength of surface waves that it produced with the body waves. If the surface waves are strong in relation to the body waves, it was a natural earthquake; if they are weak, it was an explosion.

While many in the scientific community believe that only politics is holding up a total test ban, military advocates of continued testing argue that there are compelling reasons to do so. These include the need to make certain that warheads, long in storage, have not deteriorated; the need to develop warheads with special effects (such as intense radiation or blast to destroy incoming missiles); the need to improve systems to avoid accidental detonation and the need to keep the weapons development establishment vigorous.

[From *Science*, Jan. 14, 1972]

**A COMPREHENSIVE BAN ON NUCLEAR TESTING**

(By Robert Nelid and J. P. Ruina)

The technical, strategic, and political aspects of a comprehensive test ban (CTB) treaty have changed since they were debated in the negotiations leading up to the limited test ban (LTB) treaty of 1963. Progress in the technical art of seismic monitoring may now permit nations to overcome the verification obstacle that blocked the CTB in the past. The gradual realization that new nuclear bomb technology is not critical to the strategic balance between the superpowers has also reduced concern about the risks of entering into a CTB.

In this article, we review the range of issues involved in the consideration of a CTB. Often the negotiations at Geneva and the internal debates in the United States have been so dominated by technical issues, notably those regarding verification, that the political and military significance of a CTB has been lost or ignored.

**BACKGROUND**

Any history of the LTB must consider the dimensions of the process of negotiations. The most obvious dimension is the record of official statements and the formal negotiating process itself—that process in which the parties to the negotiations make evident their policy decisions regarding negotiations. Much of the written history of this dimension is available (1) However, what is less evident is the nature of the intragovernmental negotiations that necessarily precede and accompany intergovernmental negotiations. We know a good deal about the United States' internal process. We know almost nothing about the Soviet Union's, but we must assume nevertheless that, in that country too, there was internal argument and debate on the test ban issue. The international negotiations consisted largely of sparring rounds on a few issues—the test ban's relation to more general disarmament and on-site verification. What we know about the internal debate in the United States and what we surmise about debate in the Soviet Union point up political and military issues that were never stated in the international negotiating process, but that were, nevertheless, motivating forces behind each country's position.

A test ban was proposed in 1954 after both the United States and the Soviet Union had tested thermonuclear devices and after the fallout from a particularly large U.S. test (15 megatons) in February 1954 had affected the crew of a Japanese fishing boat. From then until 1963, when the LTB treaty was signed, there were periods of serious negotiations, periods devoted to technical analyses, and a test cessation lasting almost 3 years—during which each side agreed to refrain from testing if the other did likewise—often punctuated by unilateral proclamations or bitter accusations, or both.

The United States was worried that a nuclear test ban would be a prelude to a ban on the use and even the possession of nuclear weapons and that this would eliminate the West's nuclear superiority, which was considered necessary to balance Soviet superiority in conventional forces in Europe. A test ban was therefore held to be detrimental to the West unless limitations on nuclear forces were tied to limitations on conventional forces. In 1959, the United States dropped its requirement that the test ban be linked to other disarmament measures. It focused its "anxieties" on the technical questions involved in verification. American technical analyses indicated that monitoring nuclear explosions would be particularly difficult if the tests were underground. As a consequence, the United States insisted that, before it would sign a comprehensive test ban treaty, it must have the right of on-site inspection. The Soviets, for their part, viewed this U.S. requirement very suspiciously and claimed that this was required not for technical reasons, but for the U.S. intelligence services. However, for a short time in the course of the negotiations, the Soviet Union took the significant step of agreeing to permit a certain small number of on-site inspections. Considering previous Soviet attitudes toward any foreign intrusion, this appears to have reflected great interest on their part in reaching an agreement at that time.

When resolving the Cuban missile crisis in 1962, both powers recognized the need for détente and a demonstration of reconciliation. A nuclear test ban treaty, which was ripe for conclusion after years of negotiation, was mentioned in this connection in the exchange of messages during the crisis. In renewed negotiations, the Soviet Union revived its willingness to accept a small number (that is, two or three) of on-site inspections per year. For its part, the United States reduced the requirement from between 12 and 20 inspections per year to seven per year. An agreement seemed virtually in hand. However, existing doubts and internal pressures found expression in arguments about the exact number of on-site inspections required. A compromise between three and seven was not reached. In retrospect, it is difficult to see how U.S. security could have been dependent on precisely seven on-site inspections or how Soviet security could have been more compromised by seven (or five) inspections per year than by three. But this numbers game became a politically insuperable obstacle to an agreement that banned underground testing. Fortunately, the leaders of both sides salvaged some of the spirit of the negotiations and agreed to the LTB. On 10 October 1963, the LTB, with no prohibition on underground testing, came into force. It included a commitment to continue negotiations for a CTB.

The Soviet Union later withdrew its offer permitting on-site inspections. Looking back, we can see that not only was the opportunity to reach a CTB agreement missed, but also, and perhaps more important, the opportunity to introduce reciprocal on-site inspections in the Soviet Union and the United States was missed. If the precedent of on-site inspections had been established, subsequent disarmament negotiations might have been more fruitful.

The internal debate in the United States was much less about on-site inspection per se than about the ease with which the Soviet Union could secretly violate a test ban agreement. Those who were particularly suspicious of the Soviet Union believed it folly to agree to anything that limited U.S. freedom to test. Looking back at the late 1950's and early 1960's, we can see that ambiguous positions, vacillation, and slow decision-making reflected internal differences over the general wisdom of a treaty, as well as over



specific aspects of a treaty, such as the danger of fallout and the military necessity for underground tests.

When, after the Cuban crisis, President Kennedy determined that a treaty was important, he was willing and able to resolve some of the internal differences; thus the LTB resulted. We know from public statements and from the changes in the Soviet Union's position that they, too, had some internal problems. Khrushchev later recounted his struggle to persuade his Council of Ministers to agree to three on-site inspections when he felt that the United States would accept this too (2).

Before the LTB went into effect, the United States and the Soviet Union were almost totally preoccupied with the issues as they affected their relationship to each other. Other countries, by and large, took positions that can be explained in part by their places in the nuclear hierarchy. Britain generally seemed to want to eliminate the political and technical obstacles that arose, but until the completion of its weapons test series in 1958, Britain was less positive about immediate cessation of tests. France felt that its position demanded that it pursue the development of nuclear weapons unless there was going to be complete nuclear disarmament; France started its testing program in 1960, during the U.S.-Soviet testing moratorium. China likewise advocated full nuclear disarmament. However, in July 1963, when the LTB was being concluded, China publicly denounced the agreement. This seems to have been a major step in the breach in Sino-Soviet relations. The LTB was negotiated without the participation of China and France, and this no doubt added to their annoyance. The remaining countries were generally without nuclear weapons and without nuclear ambitions, and they supported a test ban as a way to prevent nuclear fallout and as a door to arms limitation.

Since the LTB, nuclear testing by the superpowers has not ceased, but has gone underground. The total number of tests reported by U.S. authorities before and since the LTB, as of 1 January 1971, are United States, 539 (310 before, 229 since); Soviet Union, 173 (126 before, 47 since); Britain 25 (23 before, 2 since); France, 37 (7 before, 30 since); and China, 11 (all after the LTB). Swedish Defence Research Establishment figures indicate Soviet tests to be 236 (163 before, 73 since). There are indications that the actual number of U.S. and Soviet tests may be substantially higher than the numbers officially announced.

#### VERIFICATION

For over a decade, the presumed obstacle to a CTB was whether or not national means of verification were sufficient to monitor tests and verify that a CTB was not being violated. Specifically, the question centered on whether on-site inspections were necessary to verify compliance with a treaty.

The U.S. position has been that the main means of monitoring underground nuclear explosions is analysis of seismic signals. This involves two steps—*detection* (that is, a signal must be detected, thus indicating that there has been a seismic event and, as far as possible, locating it) and *identification* (that is, analyzing seismic signals generated by the event to see whether the source was an explosion or an earthquake). Not all detected signals can be identified (3). Therefore some on-site inspections were demanded as a means of spot-checking that detected but unidentified signals were not caused by nuclear explosions. The United States has always been prepared with a mass of technical evidence to support its position that seismic identification without on-site inspection was an inadequate means of verification.

The Soviet Union has engaged in technical discussion but has not linked its technical

arguments directly to its position that on-site inspection is not necessary for verification.

Since it was recognized that only seismic evidence could be used to demand an on-site inspection, this form of verification was limited to tests that could be detected by seismic means. This seems to indicate that the United States was willing to risk possible Soviet treaty violations stemming from both very low yield tests and from intermediate yield tests that, in theory, could be seismically concealed, but was unwilling to risk possible violations from seismically detectable tests.

At the time of the signing of the LTB, the United States estimated (3) that:

(1) A seismic detection system could be built, with instruments placed outside the Soviet Union, which would have a high probability of detecting underground tests of about 1 to 2 kilotons in hard rock, as well as earthquakes giving comparable signals. Underground tests in softer materials such as dry alluvium generate signals that are smaller by as much as a factor of 10 and therefore would have to be 10 to 20 kilotons in yield before being detectable.

(2) Such a system would detect about 170 earthquakes annually in the Soviet Union. Of these, only about 20 would be clearly identifiable as earthquakes by seismic techniques then in hand.

(3) Concealment methods, such as muffling seismic signals by testing in very large cavities or masking signals by making tests coincide with earthquakes, could, in principle, make it possible to test at much higher yields—perhaps up to 100 kilotons—without seismic detection. Such concealment methods were costly and fraught with practical engineering difficulties, but they might be feasible on some scale. They would also increase the likelihood of detection by non-seismic means.

Since the LTB has been in effect, progress in seismology has demonstrated that the detection threshold can be somewhat lower than the level of 1- to 2-kiloton explosions in hard rock. Of far greater importance is the discovery that explosions almost always produce smaller long-period surface waves than do shallow focus earthquakes of the same body wave magnitude. This means that, if desired, systems can be built which can identify explosions and earthquakes extremely well, down to a level equivalent to about a 5-kiloton explosion in hard rock, leaving only a small number of detected but unidentified events annually (4). Moreover, improvements in identification give promise of continuing down to levels equivalent to 1- to 2-kiloton explosions in hard rock, although it will never be possible to identify all seismic events that are detected, since identification requires more information than detection (5). To go further in improving seismic means for monitoring underground explosions, it would be necessary to lower the detection threshold, which will become ever more difficult. Thus, the point of diminishing returns for seismology research in nuclear test monitoring may soon be reached. Meanwhile, the systems installed and now operating lag some way behind the technical possibilities described here.

The problems of concealment are pretty much the same as they were. Any analysis of the significance of concealment must take account of the fact that making progress in nuclear weapons technology poses serious practical difficulties and that these are compounded by the requirements of clandestine testing. What is often forgotten is that the primary goal of a nuclear testing program is advancing nuclear weapons technology—not avoiding detection per se. Clandestine testing is not predominantly a game of "hide and seek." No country is going to embark on necessarily costly, complicated, and risky concealment measures unless it judges the gains to be great.

In addition to the progress in seismology, research carried on in the United States on the technical aspects of on-site inspection has shown that visual observation and radiochemical analysis are the only useful techniques, but that even these techniques are not effective when a test explosion is sufficiently deep to prevent surface disturbances and seepage of radioactive gases to the surface (6).

The improvements in seismic detection reduce substantially the need for on-site inspection. The now manifest technical limits to the effectiveness of on-site inspection further reduce its significance both as a means of verification and as a deterrent to treaty violations.

However, interest in on-site inspection has not disappeared, since the door to possible violation with tests above the seismic detection threshold cannot be completely closed by seismology. Every method, including on-site inspection, that offered any hope of aiding verification and increasing the difficulties and risks for a potential violator would be grasped, if great military importance were to be attached to the occasional tests that might be detected, but not identified, seismically.

Recognized but rarely discussed are non-seismic means for detecting and identifying underground explosions. Satellite sensors can be exploited for this purpose, as can traditional means of intelligence, although how helpful either of these methods is in supplementing the seismic means is not known to the public. They can be helpful in detecting clandestine tests and in directing careful examination of seismic records relating to specific times and locations. They may also be significant in helping to identify suspicious events first detected seismically.

The significance of nonseismic means is that they are varied and secret and that they may not diminish in effectiveness with smaller tests in the same way as seismic means. It will be hard to find ways to deceive them all, and a potential violator will not feel secure, no matter how much effort he puts into seismic evasion.

Although the need for on-site inspections was a key issue to both the United States and the Soviet Union, the character and details of on-site inspections were but little discussed. How intrusive need they be? How well would they work? The lack of discussion of these issues may indicate that neither nation expected to be allowed an on-site inspection at a real test site, and that, at most, they regarded the right of on-site inspection as only a deterrent to cheating. But it may also be that on-site inspection was mainly a proxy issue for other apprehensions that the superpowers had about signing a treaty or for their inability to have their disparate constituencies face up to accepting a treaty. Now on-site inspection seems hardly relevant to the important considerations involved in assessing the risks and benefits of a CTB.

There are very few references to the problems of verification for countries other than the superpowers. This is so for a combination of reasons.

(1) The superpowers are no doubt interested in observing the military activities of other countries, including, in particular, the testing of nuclear weapons and their delivery systems. But if they observe tests by Britain, China, France, or any other country that "goes nuclear," this is not likely to influence strongly their own highly advanced programs for testing nuclear warheads.

(2) The acquisition of nuclear weapons has been an overt act from which governments sought to derive political advantage. Most countries would not go nuclear by clandestine testing.

(3) Countries going nuclear are likely to start with tests large enough to detect. To

date, such tests have usually been around 20 kilotons. For technical reasons, this appears to be the easiest and the most economical size for a first weapon.

It is important to note that there are great variations in the technical difficulty of monitoring different countries. Israel, a very small and barren country, should be very easy to monitor; Japan, large and highly seismic, relatively hard to monitor. Also, the great variation in political openness of different countries allows very different levels of collateral intelligence to be obtained about nuclear developments.

#### MILITARY SIGNIFICANCE OF TESTS

The next question to consider is the nature of the military attractions to the two superpowers of continuing nuclear tests and, in particular, what, if anything, could be gained by illicitly conducting nuclear tests after a CTB was introduced.

Nuclear tests are conducted to maintain confidence in existing stockpiles, to prove the feasibility of new weapons designs, to measure nuclear explosion effects, or to contribute to research and development in weapons technology. Some tests serve more than one purpose.

Confidence tests are occasional tests for the purpose of maintaining confidence in weapons already stockpiled. Since materials age and inadvertent changes may occur in production, military authorities frequently insist on sampling the performance of their weapons. These tests are not intended to advance the state of the art.

It is not clear that such tests are really needed, since a bomb need not have any moving parts and tests of the entire device, short of going nuclear can be carried out. Nuclear fuels work, as the world knows all too well, and their chemical integrity can be checked by conventional chemical means. If all tests were prohibited, steps would surely be taken to minimize the possible deterioration in the reliability of the weapons. Bomb designs, material standards, production methods, and so on would be rigidly frozen. But to the extent that confidence diminishes, it is more likely to affect the attitude of those who plan a first use than of those who plan retaliation only. The effect, if any, is to widen the firebreak between non-nuclear and nuclear weapons and to shift nuclear weapons gradually toward the role of weapons that are useful only to deter nuclear attack.

Proof tests are tests of newly designed weapons whose designs are based on accepted and established principles. New designs are needed to meet size, weight, shape, or other performance requirements. Before stockpiling, it is necessary to test a new weapon to see whether it works as intended and expected.

Tests without nuclear explosives or at less than full yield will give less than full confidence. Occasional single tests can do the job; but full diagnostic instrumentation, which raises the risk of detection by non-seismic means, is not necessary, although useful in the event of failure.

Without proof tests it would probably be necessary to design new weapons systems around existing nuclear bomb designs (7). The effect is different for weapons intended to deter attack than it is for those intended to enhance the capability for fighting wars.

For the purpose of maintaining a credible deterrent, the case of continued upgrading and redesign of nuclear weapons is hardly persuasive for several reasons: (i) deterrent weapons tend to be in the larger yield class, in which warheads of high efficiency are already available to both superpowers; (ii) several different bomb designs can be used to make up a deterrent force, thus minimizing the possibility of a catastrophic failure in the force's retaliatory capability; (iii) so much overkill already exists that greater efficiency

in the nuclear arsenals of either power is hardly needed for deterrent capability.

It is interesting in this regard to speculate on whether or not the deterrent capability of either power would have suffered if a CTB had been in effect for the last decade. For example, in the development of MIRV's (multiple, independently targetable reentry vehicles), the most significant advance in long-range nuclear weapons in the past decade, it is safe to assume that a system could have been made using warheads of existing design and that testing has merely permitted a better combination of the numbers and sizes of warheads for a given missile.

Another argument for the need to continue testing is that it may lead to the design of a new and effective defensive system that would be critical to the strategic balance. But for the superpowers, improvements in warheads are not likely to be as important as developments in other parts of the present defensive systems. This can be seen in the fact that, in many U.S. debates about technical limitations of the ABM (antiballistic missile), the limits imposed by nuclear technology are not mentioned—all the emphasis is on the deficiencies of radar, computers, component reliability, and so on (8).

For military systems intended for fighting wars, the case for continued upgrading of nuclear weapons is stronger, but is still not compelling. Since these systems are designed to battle with an adversary's system, superior performance makes military sense. Technical improvements in nuclear warhead design can make for superior weapons systems. However, other technical aspects of the system (for example, speed, agility, and range), in addition to such factors as military tactics and troop training, will generally be more important to the performance of the system than the precise character of the nuclear bomb it delivers. Moreover, it can be argued that the superpowers, with their long history of intensive research and development and with their many tests, already have so complete an arsenal of weapons designs that a suitable, though probably not optimal, design can be found to fit almost any particular requirement.

In effects tests, nuclear explosions are used to provide a realistic nuclear environment in which to test materials, electronic devices, the survival of weapons against defense measures, and so on.

Tests of this kind are now conducted underground and are primarily for the purpose of improving designs of warheads for ABM interceptors and for missiles intended to penetrate ABM defenses. By now, the superpowers have had so much experience with underground tests that they could pursue a serious (though limited) program of effects tests even if they were restricted to yields below the seismic detection threshold. With time for even more testing and with growing disillusionment about the military utility of ABM's, the need for effects tests should become less compelling. An international limitation of ABM's, if stringent, would certainly reduce the argument for effects tests.

Some effects tests are ruled out now by the LTB's prohibition on atmospheric testing. For example, existing missile silos appear not to have been subjected to air-induced ground shock from nuclear explosions by either superpower; nor has the phenomenon of radar blackout, induced by nuclear explosions, been fully explored experimentally.

Research and development tests, including tests to investigate entirely new principles in weapons design, would be needed to advance the state of the art toward pure fusion bombs, neutron bombs, or major advances in yield-to-weight ratios for very small weapons. Large weapons are already very close to their theoretical maximum in yield-to-weight ratios, and improvement by a factor of 2 is

probably all that we can reasonably expect. This is quite insignificant compared with the advances made to date; for example, the yield of current weapons per unit of weight is about 1000 times greater than that of the bomb dropped on Hiroshima (7).

Vigorous research and development appears to be continuing on the assumption that a breakthrough, comparable in significance to the original development of the A-bomb and the H-bomb, may lie around the next scientific corner. Before the LTB, advocates of the importance of nuclear research and development to military security came up with the possibility of a "clean" bomb, which would minimize radioactive fallout, for strategic use, and a "neutron" bomb, which would reduce blast effects but maximize lethal neutron radiation, for tactical use. Neither of these potential weapons now seems significant in the military equation, and the advocates of tests have not come up with anything "exciting" since then—perhaps because the test ban issue has been quiescent. But of course it is impossible to prove that something of significance will not be invented. Fears of the undiscovered will undoubtedly persist, although they lose a great deal of their strength as time passes and nothing spectacular emerges from research programs. It is now about two decades since the H-bomb was developed. Progress has not stopped, but research and development in nuclear bomb technology seems, as might have been expected, to be yielding diminishing return. Much of the technical cream was skimmed in the first decade after the A-bomb was developed.

Research and development in nuclear weapons technology can continue without nuclear testing, but, of course, with a very reduced scope.

In the light of considerations like these, it is a matter of judgment as to how highly one should value, in military-cum-political terms, the results now derived by the superpowers from nuclear tests. It seems clear that the results are not as important as the results of the first tests undertaken by these or any other nations. Both the military and political returns may now be low. If they are low, the benefit of a CTB as a direct step to stop the arms race between the two superpowers is low, but so are the obstacles to achieving that step. If the returns are high, the benefits are high and so will be the obstacles—in terms of the arguments about what the other side might gain if it tested clandestinely. In either case, those who work in the nuclear weapons and test programs will press for continued tests.

While there are no particular grounds for assuming that if either superpower chose to break a CTB it would do so secretly rather than openly, it is interesting to speculate about the conceivable character of a clandestine test program. If one assumes that a violator would risk nonseismic detection, but not seismic detection and identification—an assumption for which there is no strong foundation—then small tests will be safer than big ones. A clandestine program might, in such a case, include a series of underground tests in soft, dry material to muffle the seismic signal, in carefully chosen locations and at a fraction of a kiloton, and perhaps occasional tests in the 20- to 80-kiloton range once every year or two, perhaps in the shadow of an earthquake.

A program of this kind would permit continued research and development and the measurement of effects to be carried further than would be possible with no tests, but probably not as far as is possible now with unlimited underground testing.

On the other hand, it would not be possible to have proof or confidence tests of very large warheads. Also, except for warheads of small yield, it would not be possible to develop warheads fully by using new technology, since



such development would probably require many tests.

This suggests that, as far as the superpowers with their huge armories of nuclear weapons are concerned, the testing and development of small nuclear weapons could scarcely be expected to change the balance of power. The military in the superpowers might show an interest in improving those small weapons that they believe might improve their ability to fight nuclear wars short of a major nuclear exchange involving their homelands; however, it is questionable whether the notion of a limited nuclear war is realistic, let alone desirable.

It can be argued that the nation that had continued small tests would be able to keep its nuclear weapon design teams together and to maintain the vigor of its weapons laboratories. In this way, it would have a lead over a nation that had not continued testing, if and when a treaty was not renewed or was abrogated. The substance of this argument rests on the highly questionable premise that a lead of this kind could give one superpower a significant political and military advantage over the other, even though each of them already has such a vast and varied arsenal of nuclear weapons.

For China, France, and the United Kingdom, however, the situation may be very different. These countries do not possess the variety of nuclear weapons that the superpowers possess. The state of nuclear technology in France and China is considerably behind that of the superpowers. The point of diminishing returns has certainly not been reached in efforts to provide more variety for their arsenals and in improving weapons. Although to be in the same "nuclear class" as the superpowers would mean building up the quality and quantity of delivery vehicles, which presents more serious obstacles than progressing in nuclear technology, these countries would be substantially limited in their ultimate capability if they stopped nuclear testing now.

The interest and need for testing may be different for each of the nonnuclear powers. Some could probably develop and store a small nuclear arsenal without any nuclear tests. With knowledge about fission weapons now available to anyone, it is feasible to design simple weapons and be confident that they will work, even if they are not tested. Most of the fundamental design work and essential laboratory tests can be carried out without having any nuclear explosions. However, if the desire were to stockpile weapons of a more advanced design without any nuclear tests, it could only be at the cost of diminished confidence in such weapons.

#### PEACEFUL NUCLEAR EXPLOSIONS

Possible peaceful uses of nuclear explosives were first explored in the United States as Project Plowshare. Applications investigated include earth moving and excavation, natural gas and mineral extraction, extraction of geothermal energy, creation of underground storage areas, and so on. The enthusiasm of U.S. scientists for peaceful applications of nuclear explosives stimulated interest in exploiting this technology elsewhere in the world. But in recent years, U.S. enthusiasm for peaceful nuclear explosions has diminished. Preliminary experiments and detailed analysis now suggest that the potential of nuclear explosions for peaceful purposes is limited and that often other methods can be found for accomplishing the same things.

Contributing to the disillusionment with peaceful applications of nuclear explosions is the realization that full explosions for each feasible application would require very large numbers of explosions. For example, it may take hundreds of nuclear explosions to extract significant amounts of gas or other minerals. If several countries were to exploit nuclear explosions for such purposes, thousands of explosions could occur. This

might again raise concerns about radioactive contamination.

But the major question here is whether it would be possible to separate civilian from military nuclear explosions and hence whether it would be possible to prohibit military explosions in a CTB while permitting peaceful explosions.

It may be that verification procedures could be devised to ascertain that no military purposes were being served in a particular program of nuclear explosions—that is, that the peaceful explosion was not also serving the purpose of a proof or confidence test or that new bomb technology was not being tested in peaceful applications. Even if such procedures could be devised, they would undoubtedly involve some detailed disclosures about the explosive device to all participants—nuclear and nonnuclear—and thereby work counter to the purposes of the nonproliferation treaty. They would also involve observation by foreign technicians, sampling and analyses of the products of the explosion, and so on. All of these means of verification could be considered intrusive and would probably be difficult to negotiate. On the other hand, without verification, peaceful nuclear explosions make violation so easy that any country might eventually succumb to exploiting a peaceful program for some military purposes.

From what we now know, the benefits from a program of peaceful explosions hardly seem to match the costs, particularly if the costs include ruling out a CTB. But a CTB need not rule out possible peaceful applications forever. One approach would be to ban all nuclear explosions initially, stipulating that for a period of several years parties to the agreement should jointly investigate methods of verifying that military applications are not being pursued in a program of peaceful nuclear explosions. If further analyses suggest that peaceful explosions are more promising than they now seem, the incentive to exploit them constructively while having a ban on military tests might encourage unprecedented international cooperation.

#### CONCLUSIONS

Our foregoing analysis of the role of a comprehensive test ban leads us to the following conclusions.

(1) A CTB by itself will have little direct effect on the arms race between the superpowers. It would not hinder their nuclear arms production and deployment nor would it necessarily present a significant obstacle to the development of new nuclear weapons systems, despite limiting the development of new nuclear warheads designs. It can hardly make a dent in the destructive capability of the superpowers or in their ability to step up the pace of the arms race.

(2) The chief merits of a CTB reside in the political sphere. It would help promote détente and could help to escalate interest in arms control agreements of broader scope. But in neither of these effects would it be as significant as a successful SALT (strategic arms limitation talks) agreement. The CTB also lingers as a piece of *unfinished business* since the signing of the LTB in 1963. The question can be and has been raised: "If the superpowers are serious about arms control, why have they not accepted the CTB, which is simple in concept and in form and is also free of serious military risks?" Such doubts about the sincerity of the superpowers' willingness to limit their own arms development will persist as long as there is no CTB. Substantial agreement at SALT would lessen some of this effect too, but would not eliminate it completely.

(3) Recent progress in seismic identification has been impressive, and other means of obtaining technical intelligence about nuclear testing have probably also improved greatly. In addition, research on the technical means of on-site inspection has demon-

strated its limited effectiveness. Therefore, the role of on-site inspections as an added deterrent to cheating on a CTB has diminished substantially. This is not to say that detection and identification of all nuclear tests is possible now, or ever, but only that on-site inspection would add very little to the other technical means now available for verification.

(4) It will become increasingly difficult in the United States to oppose the CTB on the basis of risks that accompany possible Soviet evasion of a treaty that does not include the right of on-site inspection. The opposition to a direct argument that nuclear testing is important to keep pace with continuing worldwide technical and military developments. The justification for U.S. testing is only in part because of advances in Soviet nuclear technology per se. Those opposing a CTB may argue that it makes little sense, and may even be courting danger, to freeze nuclear technology alone and that banning nuclear tests should await an agreement that copes with all military research and development and all qualitative improvements in weapons systems. This directly confronts the argument that the unique virtue of a CTB is that it provides a simple and feasible first step in the very complicated problems of controlling military technology.

(5) The mutual deterrence of the superpowers will not be compromised if a CTB agreement is reached and one side or the other clandestinely violates such an agreement. The state of nuclear technology in both countries is mature, and the destructive capability of their nuclear arsenals can be easily maintained. Whatever small improvements can come as a consequence of clandestine testing would hardly affect the strategic balance.

(6) It seems unlikely that China and France will agree to stop testing in the near future. These countries refused to join the nonproliferation treaty, which did not affect their nuclear programs, and it is doubtful that, proceeding from military considerations alone, they would join a CTB. Their nuclear programs are still not mature, and a CTB would freeze their positions of inferiority with respect to the superpowers. There may, however, be wider political and security arrangements to induce them to participate. Cessation of tests by the other nuclear powers might serve as an inducement to China and France to refrain from testing.

(7) The key near-nuclear powers, such as Japan, India, and Israel, are much more concerned with the military activities of their neighbors than they are with those of the superpowers. The modest nuclear restraints that a CTB imposes on the superpowers are hardly likely to have a direct impact on the approach of these countries to their own security. However, for these critical near-nuclear countries a CTB may be much more acceptable than the nonproliferation treaty. A CTB would not prohibit the production of fissionable material, the development of nuclear weapons technology short of testing, nor the stockpiling of untested nuclear weapons, and is therefore less restrictive. Consequently, these powers may be willing to ratify a CTB, but not the nonproliferation treaty. On the other hand, the CTB may provide them with a ready excuse for not succumbing to the pressure to ratify the nonproliferation treaty, if indeed they need excuses or would bow to such pressure.

(8) A CTB is of very little added, direct significance to other nonnuclear powers who have already ratified or are about to ratify the nonproliferation treaty. It may only lessen their pique about the treaty's being highly discriminatory—the treaty imposes no restraints on the nuclear weapons programs of the nuclear powers, while the CTB restricts all parties to the agreement.

(9) Peaceful nuclear explosions do not now show great promise and significance for eco-

conomic development. \* \* \* Explosions can often be done by other means, although possibly at a slightly higher cost. On the other hand, making allowance for peaceful explosions greatly complicates a CTB. A useful approach to the problem of banning military tests but not foregoing indefinitely the use of peaceful explosions might, therefore, be to ban all nuclear explosions for a period of several years and to stipulate in the agreement that in that time there would be negotiations on how peaceful explosions may be controlled in a way that would not jeopardize the CTB.

## REFERENCES AND NOTES

1. See, for example, *The United Nations and Disarmament 1945-70* (Department of Political and Security Council Affairs, United Nations, New York, 1970); *Documents on Disarmament* (United States Arms Control and Disarmament Agency, Government Printing Office, Washington, D.C., published annually since 1960).

2. N. Cousins, *Sat. Rev.* (7 November 1964), pp. 16-21, 58-61.

3. U.S. Congress, Joint Committee on Atomic Energy, *Hearings on Developments in Technical Capabilities for Detecting and Identifying Nuclear Weapons Tests* (88th Cong., 1st sess., 1963).

4. See the working paper (Conference of the Committee on Disarmament, document No. 330, 30 June 1971) at Geneva by S. Lukasik, director of the Advanced Research Projects Agency. This paper was also introduced in the record of U.S. Senate, Foreign Relations Subcommittee on Disarmament, *Hearings on the Comprehensive Test Ban* (92nd Cong., 1st sess., 1971), pp. 111-115; J. F. Evernden, W. J. Best, P. W. Pomeroy, T. V. McEvilly, J. M. Savino, L. R. Sykes, *J. Geophys. Res.* 73 (No. 32) 8042 (1971).

5. See testimony of J. Brune (4, pp. 139-149).

6. See testimony of S. Lukasik, U.S. Congress, Joint Committee on Atomic Energy, 27 October 1971, in press.

7. J. C. Merk, in *The Impact of New Technologies on the Arms Race*, B. T. Feld, T. Greenwood, G. W. Rathjens, S. Weinberg, Eds. (M.I.T. Press, Cambridge, Mass., 1971), pp. 133-139.

8. See U.S. Senate, Committee on Foreign Relations, "Strategic and foreign policy implications of ABM system," *Hearings before the Subcommittee on Internal Organization and Disarmament Affairs of the Committee on Foreign Relations* (91st Cong., 1st sess., 1969).

JANUARY 24, 1972.

Senator EDWARD M. KENNEDY,  
Washington, D.C.:

As you know, we argued in the January Federation of American scientists newsletter that national means of certification are now adequate even for a permanent comprehensive test ban treaty. Thus your resolution urging the President to announce a temporary moratorium on underground nuclear tests, for so long as the Soviet Union complies with it, is completely consistent with our position.

You seek, as we do, a permanent treaty. But you have added to our underlying technical and strategic analysis, a political initiative that we consider statesmanlike and wholly admirable.

MARVIN L. GOLDBERGER,  
ADRAIN FISHER,  
MORTON H. HALPERIN,  
FRANKLIN A. LONG,  
GEORGE W. RATHJENS,  
HERBERT SCOVILLE, JR.,  
HERBERT F. YORK.

## UKRAINIAN INDEPENDENCE

Mr. PELL. Mr. President, Friday, January 22, marked the 54th anniversary of

the date upon which the people of the Ukraine declared their independence of the Russian state by proclamation of a national council at Kiev in 1918. The Ukrainian Republic existed for only 3 short years before the dream of independence was rudely shattered in November and December 1920, when the Bolshevik armies reasserted Russian rule. The many Americans of Ukrainian descent dedicate January 22 each year to the memory of the brief time their ancestral homeland was free.

This anniversary is a reminder to other Americans also of the many contributions that Ukrainian-Americans, with their rich cultural heritage, have made to this country. These proud people began arriving in the 1870's, fleeing the Russian oppressors of their homeland. As they continued to come in ever increasing numbers, they formed part of the industrial sinew which has made this country what it is today. Thus, it is entirely fitting that we join with our Ukrainian-American brothers in celebrating this important part of their heritage.

## THE RENWICK GALLERY

Mr. FULBRIGHT. Mr. President, the opening of the restored Renwick Gallery was an occasion that should please everyone. It was a beautiful restoration of one of the more graceful buildings of our Capital City and will give much pleasure to our people.

It is encouraging to see our Government support the arts.

I ask unanimous consent to insert in the RECORD an article by Miss Sarah Booth Conroy, published in the Washington Post of January 30, 1972.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

THE RESTORATION OF JAMES RENWICK  
(By Sarah Booth Conroy)

Hugh Newell Jacobson, the Washington-based contemporary architect, probably came as close as any historian to knowing James Renwick Jr., the perpetrator of some of the wackiest and most interesting buildings in New York and Washington. Jacobson designed the interiors for the 19th century architect's Renwick Gallery, which opened last week as the Smithsonian Institution's museum of arts, crafts, and design. In working inside Renwick's ornate Second Empire building on Pennsylvania Avenue, diagonally across from the White House and next door to the Blair Lee, the presidential guest house, Jacobson became something of an intimate of Renwick the craftsman, and of a style of life and decorative art that seems to be on its way back, having departed more than half a century ago.

"It's nutty stuff," Jacobson allows. "But once you get into the esthetic, you begin to dig it. You find that Renwick took the rules and instead of copying them, kicked them. It's designed very deliberately, no accident, to make you feel smaller and the building grander. In photographs, the rooms look vast.

"For instance, you're accustomed to an 8-inch baseboard. But some of these are 14 inches. The Chair rails are not all at 36 inches: some are at 30, 48, even 52 inches high. Doorknobs, you reach for at 36 inches, but some of those 12-foot doors have the knob at 30. The sill line of the windows downstairs are above your head. You have to look up—and feel smaller."

Going over Renwick's specifications for

the building, Jacobson also found himself admiring an architect who could specify: "The window should be fitted with one tasteful screen."

"I could just see him sitting in the room, legs crossed, leaning on his cane, while a workman came in bearing one tasteful screen," Jacobson says: "Hey boss, this thing looks something like what you drew." And Renwick would turn up his nose and say, "not tasteful enough."

Renwick was a prodigy in his time. He was only 27 when he designed another Washington landmark, the Smithsonian's original building, that comic, ante-Walt Disney castle on the Mall. Before that he had won the competition to design Grace Church in New York, at Broadway and 10th Street, the wealthiest, most fashionable and highest Episcopal church of its day.

To look at, Renwick was a handsome man with eyes like skylights. He had more hair on the bottom of his face than on top, and his nephews said he dyed his beard. It was blacker than the artistically gray locks that seemed to wave over his ears. He was well over 6 feet tall, with shoulders, ego and temper on the same grand scale. You could tell by looking at him that he belonged to the "first circle:" the well-bred, well-fed and well-read.

You were likely to meet him at the homes of his wealthy friends, Charles Morgan and Courtland Palmer, in New York. Or in the watering places where every other 30-room "cottage" was his design. Sunday he was visible as senior warden at Grace Church, where you could be pious and posh at the same time.

Renwick's mansion in New York City was at 10th Street and University Place. Everybody said "it looks like a museum"—though not all who said it knew what a museum looks like. Renwick had been everywhere, and brought most of it home. He collected paintings, rugs, furniture, china, object d'art and a number of things whose identification was difficult.

He was an early collector of Chinese and Japanese furniture, objects and paints. (He left it all to the Metropolitan Museum at his death. But by the time his will was probated—he and his wife had no children—the century had turned and the Metropolitan turned down the collection on the grounds it was dated.) His heirs (his nephews) dispersed the collection.

His Northern yacht was called *Jean*, not named for his mother, sister or wife. You might find him aboard the *Jean*, watching to see if they were polishing up the brass engine so carefully. Or he might be in Florida fishing on his steam yacht, the *Victory*. He held pilot's licenses in four districts of Florida and was a member of the New York and Larchmont yacht clubs.

In 1869 and 1870, you would have to look for him in Italy or in Egypt. In 1855, he and William Wilson Corcoran could be found at the Paris Exposition. The next year you could have seen Renwick and his wife in Edinburgh, where the doctors were reputed to be the best for "female complaints."

If you were looking for Renwick in the 1840s and '50s, a good place to look would have been on Lafayette Square at H Street in Washington, the home of his friend and patron, William Wilson Corcoran, Washington's first millionaire. Corcoran had made his fortune in the Mexican War and with it had opened a bank, Corcoran and Riggs.

Renwick had designed the elaborate additions of salon, library and dining room to the Corcoran house, once owned by Daniel Webster.

The place to dine in Washington was at Corcoran's house. A contemporary social chronicler, Benjamin Ogle Tayloe—a neighbor of Corcoran's—said of him (as quoted in the National Trust for Historic Preservation book, *Decatur House*):

"When Mr. Webster left Mr. Tyler's cabi-



net (he was Secretary of State for both William Henry Harrison and John Tyler) Mr. Corcoran became its purchaser, and greatly improved the house and grounds, making it altogether the most splendid town establishment in the country. Mr. Corcoran, by his magnificent entertainments, threw all others in the shade. In General Pierce's time, Mr. Corcoran wielded a great influence in Washington. His splendid dinners are well remembered; the most grand, with a file of Senators on each side of the table, or intermixed with the foreign and Cabinet ministers; but the most beautiful when he occasionally assembled pretty women, for Mr. Corcoran had an eye to beauty. His taste in all respects is excellent."

In the '40s and '50s, there were lots of things to talk about at Corcoran's parties: President Van Buren's invitation to Fanny Ellsler to come to the White House after the Viennese ballerina's dance performance. The repaving of Pennsylvania Avenue with cobblestones. The Indian paintings of George Catlin. The underground railroad (with a station off MacArthur Boulevard) smuggling escaped slaves out of the South and into Canada. Tiptoe Canoe and Tyler too. The triumphant tour of Jenny Lind, under the auspices of P. T. Barnum. The cows grazing on the Mall. The need to increase the police force to 57 men. Whether John James Audubon, who drew birds, was or was not the lost French dauphin. Miss Amelia Bloomer's pantaloons worn on walks down Pennsylvania Avenue. The death of the Secretaries of Navy and State when a gun exploded unaccountably aboard the new steam warship, the *Princeton*, on a voyage down the Potomac. Corcoran's interview with President Fillmore to promote a plan for the Mall by Andrew Jackson Downing. The increase in the number of free Negroes in Washington, many of whom drove hacks or worked as chefs. The \$60,000 President Van Buren spent for gold plates, cut glass, Royal Wilton carpets, and outrider coach, marble mantels and some things he didn't account for. Mrs. Zachary Taylor's cornucopia pipe. The alarming influx into town of Irish immigrants.

The drunken Indians at Beveridge Hotel, a few doors down from the Temperance Hotel. Thoreau, who marched to the beat of a different drum. The mysterious deaths at the National Hotel at Pennsylvania Avenue and 3rd Street, where Andrew Jackson and Henry Clay were regular patrons. (Said to have been caused by arsenic in the wallpaper, poison in the food or a plot in the parlor.) The growth of the Lombardy poplar trees which Jefferson had planted along Pennsylvania Avenue. The new photographer, Matthew Brady. The impossibility of getting by all those building blocks and Ionic columns piled up in the street where the Treasury Department was abuilding. The breakfast robes, heavily laced, at Harper and Mitchell's. The necessity of dispatching a messenger to the Palace of Fortune gambling hall when a quorum was needed in the Senate. The \$2,000 appropriated by Congress to water the dust on Pennsylvania Avenue. The exact location of the Mason-Dixon line. Pishy Thompson's bookstore. The black American actor Ira Aldridge's triumph as Othello at Stratford upon Avon. Daniel Webster, buying venison and giant terrapin at Center Market. The number of dead animals in the Washington Canal. Gautier's spun sugar nest for swans. Corcoran's speech at the cornerstone laying for the Washington Monument with Mrs. Alexander Hamilton, 91, and Dolley Madison, 80, in attendance.

Renwick was into all these things of his time. He knew everybody and everybody knew him. But back then, there weren't all that great a number of people whom one deigned to know.

Donald McClelland, National Collection of Fine Arts staffer, speculates that Renwick met Corcoran through the banker William

H. Aspinwall. Aspinwall and Corcoran were two of the seven or eight men in the country at that time who had money and time to collect art. In consequence, their collections were always outgrowing their houses. Renwick added a wing to Aspinwall's Fifth Avenue house and married (Dec. 16, 1861) his daughter, Anna.

It is one of fate's curious chain letters that Corcoran was influential in getting Renwick the job of designing the Smithsonian Institution's original building. Corcoran was the Smithsonian's banker. The Smithsonian's secretary, Joseph Henry, wrote letters of introduction for Corcoran's art-buying sprees in Europe.

According to research by James M. Goode, the Smithsonian castle's curator, rival architects charged Renwick was given the contract for the Smithsonian because of his connections. Goode thinks they were probably right.

Renwick's Grace Church in New York was not admired by everyone. There were those who called it pointedly, "Renwick's toothpick."

But anyway, the commission to choose an architect liked Renwick's work, and his plan for the Smithsonian was accepted in 1846.

Renwick obviously went way out when he designed the building. He gave it everything he could think of: nine towers, three principal entrances, one chapel and more whoop-de-dos than a covey of curators could count.

Renwick's nominally Norman design for the building may be the monumental example of an architect giving the client what he thought was good for him.

The client, in the body of the Congress of the United States, in a bill introduced by Ohio Senator Benjamin Tappan, ordered:

"... a suitable building of plain and durable structure without unnecessary ornament and of sufficient size . . ." Congress added that it should be fireproof. (It was finished in 1855 and burned up 10 years later. Earlier, on Feb. 26, 1850, a number of the durable materials, the center of the interior, fell into the basement.)

But Corcoran thought Renwick was a splendid architect. They shared a taste for the newest thing, the fashionable, the in. They went to Paris Exposition of 1854 and both were thunderstruck with the great beauty of the Second Empire style of the Louvre's new addition, the Visconti-and-Lefuel-designed Pavillon Colbert.

According to one story, researched by McClelland, the Princess Eugenie asked Garnier, who designed the Paris opera, what its style was, "Louis XIV, Louis XV or Louis XVI?" "Garnier replied with both tact and accuracy: *c'est du Napoleon III.*"

Corcoran and Renwick came back to the United States as spiritual captives of the Second Empire. Corcoran had Renwick try out the style in a chapel for a cemetery he was establishing in Georgetown, Oak Hill. Renwick used the style in a grander fashion for the Charity Hospital, New York City (1858-61, now being restored).

Later (1860) Renwick also used Second Empire for the main building at Vassar College. But likely his most charming French gesture is the gallery he designed for 17th and Pennsylvania Avenue, originally the Corcoran Gallery of Art, after Renwick's patron, and, as of last week, the Renwick Gallery.

Mansard roofs of purple Welsh slate. Ornately ornamented orders. Baltimore red-face brick. Cutstone work of Beleville freestone. Iron beams cast at the Cooper Hewitt Foundry (arriving late).

The roof was on. The windows in. But the interior was still a mess of wet plaster when the Civil War (which Corcoran, a Southern sympathizer, might have called the War for Southern Independence) began.

The Lafayette chronicler Tayloe writes what happened: "Mr. Corcoran's house, with all its costly furniture and art treasures, was most unjustifiably seized by the Secretary of War, in 1862, as a hospital for the soldiers.

By some magic, the French Minister, M. Mercier, telegraphed from New York that the house was his. Afterwards, on his going to the State Department, Governor Seward asked the Minister if "the French flag was broad enough to cover Mr. Corcoran's house?" "If it is not," M. Mercier replied, "we will make it so."

But the French flag wasn't elastic enough to cover the unfinished gallery. Quartermaster General Montgomery C. Meigs occupied the building and it was almost 10 years later before Corcoran got his building back.

But having kept his wits, his cool and his money throughout the war, he was able afterward to regain his gallery, his house and his friends. The first major social event in Washington after the war to be attended by both Southern sympathizers (old Georgetown and Washington society) and Grant's reconstruction government officials was the grand ball preview of Corcoran's art gallery on Feb. 20, 1871.

The carnival season ball celebrated George Washington's birthday, was a benefit for funds to complete the Washington Monument, as well as previewed Corcoran's Gallery. Contemporary accounts suggest that the wine and food cost Corcoran more than was raised. President Grant attended. Two Frenchmen, ballroom decorators, bedecked the halls. Everything went well, with the single exception of a bit of stage business criticized by a New York society reporter of the day: When the President entered the ballroom, the gas jets (a Renwick invention, which encircled the hall) were dimmed. When he was seated, the lights blazed bright. The reporter wrote critically:

"Unfortunately when private theatricals are undertaken, rehearsals are necessary to insure a success and as no previous drill had been attempted, neither the actors in the little piece nor the gas itself were in accord."

There was still much to be done to turn the building into a gallery. It was three more years before it opened.

Meanwhile, Corcoran kept on buying. And in 1897, shortly after his death, the collection had outgrown the building, so a new Corcoran Gallery was built at 17th Street and New York Avenue to a design of Ernest Flagg.

The French Empire building was bought by the government for use as the U.S. Court of Claims from 1899 to 1964.

## SLAUGHTER IN NORTHERN IRELAND

Mr. KENNEDY. Mr. President, once again, the killing and violence in Northern Ireland occupy the headlines of the world. Decent people everywhere are appalled at the senseless and terrible new sacrifice of innocent human life that took place yesterday in Londonderry.

If any one event can be singled out as the cause that has precipitated the current reign of terror in Ulster, it was the ominous decision last August to launch the disastrous and repressive policy of internment. And now, by some cruel and tragic irony, the most wanton slaughter of all has occurred in the course of what began as a peaceful demonstration against that very policy itself.

Can anyone now doubt that internment is a failure? Can anyone now doubt that the presence of British troops is compounding the violence instead of contributing to peace? How much more innocent blood must be shed before the Governments of Britain and Northern Ireland realize the error of their policy and take the steps that are needed to

prevent the rising daily flow of blood in the streets of Northern Ireland?

#### ANNOUNCEMENT OF POSITION ON A VOTE

Mr. MILLER. Mr. President, while I was necessarily absent on January 28, the Senate voted on amendment No. 829 to S. 2515 which would have prohibited the Federal Government from requiring an employer to employ persons of a particular race, religion, or national origin in either fixed or variable numbers, proportions, or percentages. If present I would have voted "nay," and I ask that the permanent RECORD reflect my position.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### TRIAL FOR GENOCIDE: NO INTERNATIONAL COURT

Mr. PROXMIRE. Mr. President, some people who oppose the Genocide Convention do so because they fear that American ratification of this treaty will subject American citizens to trial before the International Court of Justice without any of their rights and protections under our Constitution.

This fear is not warranted by the facts. The International Court of Justice was established after World War II to arbitrate disputes between nations. Should two countries have a disagreement that they can not settle by negotiation, they can agree to submit the matter to the International Court. After hearing both sides, the Court renders an opinion. Should one party to the dispute decide not to abide by the Court's opinion, the Court has absolutely no power to enforce its opinion. Only the good will of the parties to the dispute enforces the opinion.

Article IX of the Genocide Convention says that any disputes over the meaning of this treaty will be decided by the International Court of Justice. Nothing is said about giving the Court the power to try individuals, a power the Court has never had. Instead the Court is to issue an opinion as to what the treaty says. Should any party to the dispute disagree with the Court's opinion, the Court still has no power to enforce its opinion.

Article VI of the Genocide Convention does speak of an international tribunal to try individuals, but in the 22 years that the Convention has been in force such a tribunal has never been established. The reason is because neither article VI, nor any other part of the Convention, establishes such a tribunal. Rather, article VI makes it clear that if the nations of the world should desire an international tribunal to try persons for genocide, they will have to enter into a separate agreement. Such an agreement would have to be approved by each nation before it was in force for that nation. Thus the Senate would have to ratify that agreement before the United States was bound by it. There is no movement to attempt to establish an international tribunal.

We see, Mr. President, that the Genocide

Convention does not provide for the trial of individuals by the International Court of Justice or any other international body. Rather the trial must occur in a competent tribunal of the country where the crime allegedly occurred. The time has come for the Senate to ratify the Genocide Convention.

#### SUDDEN INFANT DEATH

Mr. MONDALE. Mr. President, on Tuesday, January 25, the Subcommittee on Children and Youth had a very moving and informative hearing on the sudden infant death syndrome.

Among our witnesses were Dr. Abraham B. Bergman and Mrs. Judith Choate, president and executive administrator, respectively, of the National Foundation for Sudden Infant Death, Inc.; Dr. Jay M. Arena, president of the American Academy of Pediatrics; Dr. Merlin K. DuVal, Assistant Secretary for Health and Scientific Affairs at HEW; Mr. Saul Goldberg, president of the International Guild for Infant Survival; and Mr. Frank Hennigan and Mr. Arthur Siegal, fathers of children who died suddenly for no apparent reason.

Because of the virtual ignorance surrounding this major killer of young children, I ask unanimous consent that the testimony of our witnesses and other relevant materials be printed in the RECORD.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

STATEMENT OF SENATOR WALTER F. MONDALE, CHAIRMAN, SENATE SUBCOMMITTEE ON CHILDREN AND YOUTH

This morning's hearing is the first of a series the Subcommittee will hold concerning "the rights of children." Today we will explore the most fundamental right of all—the right of a child to live.

Every night several million American mothers feed their babies, put them in their cribs, and say goodnight. The next morning they return, greet their children and begin another day of care.

Yet every morning anywhere from 30 to 60 mothers return to find their babies lying dead in their cribs—victims of a mysterious and frightening disease that takes the lives of at least 10,000 infants each year.

Some people know this disease by the name of "crib death" or "cot death." Others call it "Sudden Infant Death Syndrome." By any name it is an elusive disease which strikes not only the child, but his whole family. Sometimes the victim's parents and brothers and sisters never recover from the shock, guilt and self-incrimination that follow.

The death of any baby, any child, is a tragedy. But consider the tragedy of the mother who has fed her healthy child as usual and put him to bed. She awakes in the middle of the night, looks in on the baby and finds him dead. Can she ever hope to escape the gnawing feeling that she was in some way responsible for that death . . . the tortured thoughts that if she had only checked one more time, that the death could have been prevented?

Consider the woman who wrote: "I lost my son almost 24 years ago . . . with this syndrome. An autopsy was not performed. I have since divorced and my ex-husband has told both my daughters that I killed the baby. I fed him at 3 a.m. and at 6 a.m. he was dying when I went in to check on him . . . I have seen two psychiatrists but I still have terrible guilt feelings."

Crib death is not an isolated occurrence. It is the leading cause of death of infants between one month and one year old, striking 3 out of every 1,000 children born in this country. It strikes silently and unexpectedly at healthy babies who are sleeping peacefully in their cribs one minute and found dead there a few hours later. When an autopsy is performed—and this does not always happen—no specific cause of death can be identified.

Although it touches thousands of American families every year, most Americans know little about it.

Although medical researchers have explored a variety of hypotheses on the causes of crib deaths, none of them has been confirmed.

Although the National Institute of Child Health and Human Development calls it the largest cause of death in infants from one to twelve months old, SIDS is not even mentioned in government statistics on infant mortality.

Although Sudden Infant Death Syndrome was finally identified and described as a specific disease in 1969, large numbers of medical and legal authorities are not up to date on the research findings and implications of SIDS.

We need to review our efforts to discover the medical cause of these deaths . . . and ways to prevent them. And, we need to examine the extent to which families who lose their babies to this mysterious killer are receiving the help and support they need from the doctors and nurses, medical examiners and policemen, coroners, and rescue squad officials they encounter following their child's death.

This is why we are holding this hearing today:

To learn about past and present research efforts;

To explore the prospects for discovering the cause—and preventing future occurrences—of SIDS;

To understand the scope of activity within HEW, to inform the public and professions about this disease;

To learn from government officials, medical experts, and parents—what more we can do both to determine the cause and provide assistance to those families who have been the victims of this deadly disease.

STATEMENT OF DR. MERLIN K. DUVAL, ASSISTANT SECRETARY FOR HEALTH AND SCIENTIFIC AFFAIRS, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE ON SUDDEN INFANT DEATH SYNDROME, BEFORE THE SENATE LABOR AND PUBLIC WELFARE SUBCOMMITTEE ON CHILDREN AND YOUTH, JANUARY 25, 1972

Mr. Chairman, I am pleased to appear before the Committee this morning to discuss with you the sudden infant death syndrome, also known as "crib death," and report the efforts of the Department of Health, Education, and Welfare through its component, the National Institutes of Health, and specifically the National Institute of Child Health and Human Development, to increase our understanding of this tragic medical problem about which so little is known.

Let me first outline briefly for you some of the obstacles to explaining accurately and fully the occurrence of crib death, what we have learned about it so far, and then describe the Institute's plans for future research on sudden infant death syndrome.

Since its establishment in 1963, the NICHD has been increasingly concerned with the syndrome and has directed its efforts to enlarging our understanding the syndrome. But progress has been slowed by three critical factors:

(1) There is a paucity of scientists interested in the phenomenon of sudden infant death. In the last nine years, only a very small number of applications dealing specifically with sudden infant death syndrome have been submitted to the NICHD for con-



sideration. Eight of these were disapproved by the initial review group because of their poor scientific merit; of the five approved, all were funded.

(2) There is currently no code in the International Classification of Diseases for this syndrome. These deaths according to the classification system may have been categorized as mechanical suffocation, pneumonia, ill-defined conditions, and accidental deaths. We recognize the need to gain valid, reliable vital statistics in certifying cause of death for these babies. The NICHD is working closely with the Director of Health Statistics Analysis of the National Center for Health Statistics of the Health Services and Mental Health Administration to identify more accurately infant deaths attributed to sudden infant death syndrome and to establish a separate category for sudden infant death syndrome in the ninth edition of the International Classification of Diseases. The definition of sudden infant death syndrome as put forth in the Second International Conference on Causes of Sudden Death in Infancy will be used as a basis for this classification.

(3) Finally, an even more serious limitation on our understanding of sudden infant death syndrome is the very nature of the syndrome. Its starting point is the death of an infant, which is instantaneous and without warning. There is no opportunity to observe the forces and interrelationships leading up to the baby's death. It has been necessary first to gather information on the nature of the syndrome and the characteristics of the victims and their environment. Much of this has now been accomplished; we now have a better understanding of who the vulnerable baby is (i.e., premature infant, the sleeping baby), and the environment from which he is most likely to come (i.e., low socio-economic level and minority group).

In an effort to generate interest in the sudden infant death phenomenon, and to provide a focus for the exchange of the knowledge we do have about it, the NICHD has supported two conferences on sudden infant death, one in 1963 and another in 1969. As a result, it was possible to identify the condition as a disease, not a mystery killer, and both conferences recommended certain types of research which were needed to provide the most helpful data. Proceedings of the two conferences are available and have been submitted to you. A pamphlet designed for general public information is now being prepared.

On the basis of three carefully controlled studies in the United States<sup>1</sup> and one in the United Kingdom,<sup>2</sup> it appears that the sudden infant death syndrome may result in up to 10,000 deaths each year in those countries (about 3 per 1,000 live births), and is the major cause of death in infancy after the first month of life.

Table 1, attached at the end of my statement, details the number of deaths per 1,000 live births attributed to SIDS by each of these researchers, and the infant subjects observed.

It is generally agreed that "crib death" is the unexpected demise of an infant not known to have had a serious disease whose death remains unexplained after complete autopsy. Sudden unexplained infant death occurs in the young infant who is apparently in good health. In the majority of cases, the baby does not have a cold or infection and takes his feeding without difficulty. The infant is then placed in his crib for a nap or for the night; several hours later, or in the morning, the baby is found dead.

It occurs more frequently in nonwhite babies than in white babies; in families of lower socio-economic status than in the higher socio-economic status; in premature infants, particularly those with gestational ages between 34 and 35 weeks, than in full-term infants; and in babies who have had recent infections. Twins may have increased risk of SIDS, but it is difficult to be certain of this because twins are frequently of low birthweight and low gestational age. Victims are mostly between the ages of two and six months; the frequency is highest around the third month of life.

The baby is most frequently found dead during sleeping hours. The largest number of the deaths occur in the winter, between the months of November and February. There is some suspicion that sudden changes in temperatures may be influential in triggering the syndrome. Risk of sudden infant death syndrome appears to be highest in crowded dwellings and among younger mothers who have several other children. All known associations, however, are intertwined with one another; therefore it is not known which one of the associations is most important.

A number of hypotheses have been proposed for the cause of this syndrome. None has yet been proven correct. In the past, single-factor explanations were advanced, but no single factor has been causally related to SIDS. Table II, which I have attached to the end of my statement, lists the more important single-factor theories. More recently, multifactorial theories of SIDS etiology have been advanced. For example, an important current theory involves a combination of factors involving infection; instability of the nervous system, and sleep. This theory holds that inflammation of the respiratory tract, that could be caused by an upper respiratory infection, may trigger a nervous system response that results in a spasm of the muscles controlling the airway opening to the lungs. This laryngeal spasm effectively keeps oxygen from getting to the lungs and the infant dies. This hypothesis is difficult to test since no animal model exists that will permit us experimentally to define the interaction of the immune response and the autonomic nervous system. Table III shows several factors which could lead down a final common pathway to acute heart failure.

During fiscal year 1971, 43 grants relating to SIDS and totalling \$1.8 million were supported by the NICHD. Of these, one is directed specifically to the cause of SIDS and is funded at a level of \$46,258. The other grants are in areas of research which have been identified by scientists working in the field as being relevant to the sudden infant death syndrome, for example:

At Stanford University, a study of the relationship of oxygen to temperature stability is being supported. It has been confirmed through epidemiologic investigation that the risk of premature infants becoming victims of SIDS is significantly greater than for full-term infants. Premature infants have multiple problems related to the relative immaturity of vital physiologic functions, and a major problem in these infants is the maintenance of temperature stability. Because both low environmental temperature and oxygen lack due to nasal or pharyngeal obstruction have been implicated in the onset of the syndrome, this study is highly relevant to the sudden infant death syndrome.

It is also well documented that SIDS occurs much more frequently in cold weather months than at other times in the year. This observation has resulted in questions about the relationship between cold and thermal regulating processes to the phenomenon. In this area, an NICHD-supported investigator at the University of Washington has found that heat production and temperature control of premature infants and young infants is unstable, and that rapid changes in envi-

ronmental temperature can affect respiratory state and function, frequently resulting in a temporary loss of breath.

Sudden infant death occurs most frequently when the infant is in a sleeping state. He apparently does not wake up or cry out. This observation has led to the suspicion that the sleep mechanism is closely tied to the pathogenesis of this phenomenon. A study of the relationship between heart rate, eye movements, respiratory rate, and bodily movement in three-month-old infants is being supported at the University of California at Los Angeles. This investigation will describe neural developments in premature and full-term infants, and the relationship of nervous system development to the stability of sleep and the wake/sleep cycle.

In addition to grants for research on SIDS, the NICHD has initiated two contracts specifically concerned with the sudden infant death syndrome. One was a contract with the Children's Hospital in the District of Columbia to study the role of viral and other infections in the etiology of the syndrome. Although no specific virus was incriminated, the investigators frequently found evidence of viral infection either in the victim or his family.

The other was a contract for a review of world literature on sudden infant death syndrome covering the years 1954 through 1966. This was published in *Pediatrics* in 1967. In the follow-up of this review of the literature, the Institute is currently working on an annotated bibliography of sudden death syndrome for the years 1960-1971. This bibliography will be available by midyear.

On August 16, 1971, the NICHD held a research planning workshop to define new directions in research into the causes of the syndrome utilizing the data presented at the February 1969 conference as well as more recent research findings. As a result of this workshop, a plan for an integrated program of research for the prevention of sudden infant death syndrome has evolved which will serve as a basis for an active, Institute-sponsored program of scientific research in this area. We will distribute this document in the scientific community in an effort to stimulate research grant proposals.

As a result of the August 1971 NICHD workshop on sudden infant death syndrome and an earlier NICHD-sponsored conference on growth and development, an age parallelism between risk of sudden infant death syndrome and pattern of sleep physiology development was identified. Death rate for SIDS peaks at about three months of age, just when chaotic infant sleep patterns change to the more regular adult rhythms. Because of the probable involvement of sleep physiology in the etiology of this syndrome, we feel that a descriptive study of sleep physiology would be valuable, and a longitudinal study of sleep parameters in a selected population is planned. High risk (or SIDS) and low-risk subjects will be studied prenatally, immediately postpartum, and at monthly intervals during the first half year of life. We hope that parallels between sleep physiology and SIDS risk will give strong indications of the etiology of this syndrome.

In addition to exploring the interrelationship of age and sleep patterns with SIDS, the NICHD is now reviewing a proposal to identify possible relationships between the events of sudden infant death syndrome and physiologic, demographic, meteorological, and environmental factors. This area of research is important because of the possible relationship between abrupt and sharp temperature changes and the occurrence of sudden, unexplained, infant death that has been reported by several investigators.

Finally, the NICHD plans to undertake a national survey of death certificates to determine the incidence of the syndrome in the United States, based on the techniques

<sup>1</sup> Fitzgibbons et al. (1969), Valdes-Dapena et al. (1968), and Peterson (1966) (Second International Conference on Sudden Infant Death Syndrome, p. 3).

<sup>2</sup> Froggatt et al. (1968) Ibid.

developed in a 1966 study of SIDS in King County, Washington. Examination of death certificates confirmed the incidence of SIDS reported by an earlier detailed pathological study in the same area. The close correlation of SIDS incidents in these studies leads

us to believe that a careful examination of death certificates for the entire United States would yield useful and valid data on the incidence of SIDS.

Thank you, Mr. Chairman, I would be happy to answer any questions you may have.

TABLE 1.—INCIDENCE OF SIDS

Author	Year	Place	Number per 1,000 live births	Subjects
Fitzgibbons et al.	1969	Olmstead County, Minn. (Mayo Clinic)	1.2	All infants.
Ministry of Health of Great Britain	1965	England and Wales (overall)	1.4	Do.
Carpenter	1965	England and Wales (overall)	2.2	Exclusively twins.
Froggatt et al.	1968	Northern Ireland	2.3	All infants.
Valdes-Dapena et al.	1968	Philadelphia	12.55	Do.
Peterson	1966	Seattle	22.87	Do.
Steele et al.	1967	Canada	3.00	Do.

<sup>1</sup> 1.41 Caucasians; 4.32 Negro.

<sup>2</sup> 2.71 Caucasians; 4.66 Negro and American Indian.

TABLE II.—Sudden unexpected death in infants: Etiologic theories that involve the heart—hypotheses and particular explanations<sup>1</sup>

Reflex vagocardiac inhibition.  
Subendocardial fibroelastosis.  
Congenital heart disease.  
Primary and secondary myocarditis.  
Arrhythmias consequent to an exaggerated "diving reflex" or myocardial electrolyte disturbance.  
Inherited conduction anomalies.  
Myocardial hypocalcemia.  
Infantile arrhythmias.

<sup>1</sup> Taken from Froggatt, et al.: Amer. J. Cardiology, 22:457, 1968.

TABLE III.—Sudden unexpected death in infants: Etiologic theories other than those involving the heart<sup>1</sup>

## PRINCIPAL HYPOTHESIS

Mechanical suffocation.  
Respiratory infection plus abnormal response.  
Antigen hypersensitivity.

## SUBSIDIARY HYPOTHESES AND PARTICULAR EXPLANATIONS

Thymic death.  
Fulminating septicemia.  
Suffocation by milk feeds or vomit.  
Mass viscerovisceral reflex.  
Low serum gammaglobulin.  
Adrenal insufficiency.  
Anaphylactic pulmonary edema.  
Renal anaphylaxis.  
Protein intoxication.  
Enteritis-enterocolitis.  
Laryngo- and bronchospasm.  
Pulmonary thrombi.  
Thymus dysfunction.

<sup>1</sup> Taken from Froggatt, et al.: Amer. J. Cardiology, 22:457, 1968.

## TESTIMONY OF AMERICAN ACADEMY OF PEDIATRICS, JANUARY 25, 1972.

I am Dr. Jay M. Arena of Durham, North Carolina, here today in my capacity as President of the American Academy of Pediatrics. The American Academy of Pediatrics is the world's largest association of board certified physicians providing care to infants, children and adolescents. Since establishment in 1930, the Academy and its membership have been committed to working for the welfare of children and to establishing and maintaining the highest possible standards for pediatric practice, education and research.

It is a great personal honor for me to appear here today. I wish also to convey the appreciation of the Academy to appear again before this Subcommittee on behalf of children. We in the pediatric community feel a special attachment to you, for despite the fact that many committees within the Congress have within their purview activities affecting the safety, health and welfare of children and youth, this Subcommittee is

the only unit within the Legislative Branch which identifies its relationship to children and youth in its very title.

Mr. Chairman, if I were to leave today having imparted through my presentation only one impression, I would hope that it might be this: Children must have greater visibility within our national priorities. There are many impediments which deprive children of a full share of life; they must be more closely scrutinized, and more vigorous efforts must be mounted to conquer them. Sudden Infant Death Syndrome, which we are to discuss today, is but one example of a phenomenon affecting children which must become the object of relentless efforts to understand and overcome.

Sudden Infant Death Syndrome (SIDS) claims one of every 330 infants. Although there are seasonal variations in the incidents, the magnitude of this disease might be even more greatly appreciated if expressed in the daily toll of young lives—which is approximately twenty-seven, or if expressed in the term of approximately 190 deaths per week. How long might such a situation be tolerated without an indication of a commitment to reduce these incidents. Well, today there is a great restlessness within government, within the medical community and among the public; a restlessness which is making it abundantly clear that greater attention must be devoted to the number one killer of children between one month and one year of age. These proceedings are but one manifestation of that concern.

Crib death is not yet preventable, there are no symptoms, there is no known treatment. Although the correlation of information from research efforts is helping us to better understand this phenomenon, nonetheless SIDS is one of medicine's mysteries yet to be solved. The scientific community has been perplexed, but it has not given up. Within the medical community, our information has been scanty, and our understanding at best has been incomplete. But much the same way cancer research and the conquest of outer space have challenged this nation, so too must we zero in our efforts to understand more fully the developmental phenomenon of the fetus, growth and development of the newborn, the early life process and the interrelationship of these various facets with man's environment. Therein we are likely to find the answers we seek.

A task of this magnitude and nature is not beyond our ability. One need only look at our efforts in the space program, wherein an ideal environment has been manufactured for our astronauts traveling beyond the influences of earth. Truly a remarkable feat. Yet, we note how much we must still uncover regarding man's first environment—*intrauterine life*—and how much there is still to be done in perinatal biology and conquering the causes of infant mortality. The question is not can we do it, the issue is whether we have the will to do it—the will as a nation to commit our resources to as-

sure children their right to the quality of life.

## RESEARCH

The pediatric community has followed with intense interest the development of the NIH and particularly NICHD in the past decade. Although NICHD's fiscal year 1972 budget request submitted last year by the President to the Congress contained a \$10 million increase, nonetheless few appreciate that there was a net decrease for child health research. The responsiveness of the Congress was heartening, and \$5 million was added to remedy this shortcoming. However, in a letter to Secretary Richardson on December 13, 1971 I conveyed our frustration over the fact that the increase for child health research grants had been frozen by the Administration. These monies are now available for allocation I'm pleased to note. For the information of the Committee and the public I wish to include my letter in the record of these proceedings and the response thereto. My letter underlines the discrepancy between needs in support for child health research and the not yet adequate measure of support provided.

Research into the Sudden Infant Death Syndrome is part and parcel of our entire child health research effort. While further exploring the physiology of the young child, we may come to understand the interrelationship of prematurity, the infant's response to the stresses of labor, temperature, sleep physiology, infection, etc. and the relationship of each to SIDS. Prematurity, postnatal asphyxia, and congenital malformations account for more than half of the deaths of children under one year of age. The majority of these instances occur during the perinatal period (twenty-first week of gestation thru twenty-eighth day of life), while SIDS accounts for the majority of deaths among infants beyond one month of age. There is a correlation among these phenomenon, and a greater understanding of one will enhance our knowledge to deal more effectively with early life.

The Academy would recommend that the Administration and the Congress identify child health research as a national priority, and that these efforts be particularly directed at the perinatal period and postnatal periods (through one year of age). The dedication of our financial resources to research should be viewed not as an effort to save a life, but to save a lifetime; not as an effort to eliminate a disease or conquer a handicap, but as an effort to improve the quality of life for all Americans.

The corollary of this must also be mentioned (only in passing), for not all within our capacity now to prevent or eliminate has gotten off the shelf and has reached the people. Health care for many is wanting, diseases which should have been eliminated run rampant, and our capacity to train qualified professionals and allied health personnel has not been taxed. While research is important, the entire compendium of activities in child health must be more fully supported, including service programs and training activities.

NICHD has been attentive to meeting its responsibilities to support outside research efforts, and it has supported professional and public education activities. The 1963 and 1969 Conferences supported by NICHD are further tangible manifestations of our federal government's responsiveness to meeting its responsibilities. However, in consequence of the paucity of fundable applications for SIDS research, the Academy would recommend that an extensive intramural research effort be developed by NICHD, facilities be allocated, and trained personnel be engaged to foster quality work.

## PROFESSIONAL EDUCATION

The Academy itself has attempted to be responsive in the area of professional education regarding SIDS. Our official publication



Pediatrics is the principal professional publication for physicians caring for children and at least a half dozen references to SIDS may be found in the past few years. Much the same as quality research applications are wanting, so too there is a paucity of writings.

Within the past few months a Committee of the Academy has been charged to prepare a statement on SIDS for the pediatric community. Although the work is not yet completed, I understand the statement will discuss the lack of professional education, the physician's role to counsel victim parents so that self incrimination might be averted, and the need for humane treatment of family members.

I anticipate the promulgation of this statement among the Academy members will be accompanied by a recommendation to our state chapters that they identify and establish liaison with the principal parent groups, and become more actively involved with this problem within the community.

Since SIDS is a phenomenon occurring at home, attempts must be made to have physicians at teaching hospitals and medical centers become more interested in work in this field. Hopefully renewed emphasis placed upon SIDS by the AAP will stimulate interest in research efforts by the academic and research community. Along these lines, the utilization of hospital pediatric departments and medical schools for autopsies may help to provide more complete information on SIDS.

#### PUBLIC EDUCATION

The contribution which might best be made by the Academy in the area of public education, in addition to our cooperative efforts with government and parent groups, is to continue to stress the value of prenatal care, proceed with our program of education regarding parental care of children, and continue to emphasize the value of health supervision and preventive medicine. Until we know more about SIDS, we must simply continue to help parents understand the essentials of good child care.

The federal government might continue to play a role in supporting periodic conferences and publishing timely reports and articles. Although we have not explored the feasibility of a federal agency becoming the cornerstone of a nationwide program to assist SIDS parents, the Office of Child Development in the Office of the Secretary of HEW might develop a program capable of responding to the needs of SIDS parents with appropriate and timely information. Perhaps simply augmenting the efforts of SIDS parent groups and aiding them in education efforts of parents and professionals would be sufficient. Even though no cure is immediately at hand, parents who in the past have spent hellish days blaming themselves may find it easier to live with an explanation rather than only with an unanswerable why.

There also may be a role for government in the education and training of personnel who most frequently come in contact with parents soon after tragedy strikes, such as police, coroners and medical examiners, physicians, social workers, and perhaps attorneys. The objective of such an educational effort would be to assure respectful and humane treatment of family members.

The peculiar nature of SIDS is such that it strikes without warning. There is no prevention, there is nothing which the parent can do to avert its coming. Consequently, we endorse the approach of the Children's Bureau of not discussing SIDS in its publications for parents. Other than to raise apprehension and fear, there is little to be benefited.

It is appropriate at this point to acknowledge the tremendous efforts of the parent groups, most notably The National Foundation for Sudden Infant Death, Inc. I wish

to express my high admiration for parents who have experienced SIDS and who are diligently working to somewhat lighten the burden and grief for other parents.

#### DATA

Incidents of SIDS should be reported, but measures must be taken to facilitate data collection. The Academy is considering the feasibility of recommending that SIDS be classified as a term in the International Classification of Diseases and that cases be reported and recorded. I anticipate we will be exploring this issue with the National Center for Health Statistics in the coming months.

Earlier I alluded to the need for the medical community to become more deeply involved and interested in this disease. The potential for unlocking the mystery of SIDS through a greater participation of hospital and medical center based physicians cannot be underestimated. At this time we are unable to recommend whether a nationwide standard procedure might be developed, such as the program in Washington State, wherein the medical institution plays an important role by performing autopsies on deceased persons under three years of age. Certainly this is an avenue which might be further explored and hopefully will be discussed by other witnesses. Perhaps two needs now existing are (1) standardization in procedure and agreement upon the criteria for post-mortem diagnosis and (2) the need for autopsies among all unexplained infant deaths.

Mr. Chairman, thank you again for this opportunity to appear here today on behalf of the American Academy of Pediatrics. I will be sure that you are kept apprised of our efforts in this field, and you have our pledge of further cooperation and assistance whenever possible. If you or other members of the Subcommittee have questions, I will be pleased to attempt answering them. Thank you.

#### SUDDEN INFANT DEATH SYNDROME

(Statement by

Senator LOWELL P. WEICKER, JR.)

JANUARY 25, 1972.

I am honored to have the opportunity today to introduce representatives of an organization that has provided support to thousands of families whose children have died of Sudden Infant Death Syndrome.

Nine years ago I was present at the founding of the Mark Addison Roe Foundation, the predecessor of the National Foundation for Sudden Infant Death. The original foundation was formed by my friends, Mr. and Mrs. Jedd Roe, following the crib death of their infant son, Mark. Their tragic experience in losing Mark and subsequent creation of the foundation has resulted over the years in greater public awareness of Sudden Infant Death and its sad implications for families.

I only regret that despite the years of effort by the Roes, the Foundation, the International Guild for Infant Survival and other dedicated individuals, we still do not know the cause of crib death. We know that 10,000 babies can be expected to die mysteriously this year; and that we will be able neither to predict nor prevent these innocent deaths and so we know that much work remains to be done.

Mr. Chairman, I commend you for taking an interest in this serious problem, and for bringing it to the attention of your colleagues in the Senate and the general public.

I am pleased now to introduce Dr. Abraham Bergman and Mrs. Judie Choate, who serve respectively as President and Executive Administrator of the National Foundation for Sudden Infant Death.

#### SUDDEN INFANT DEATH SYNDROME IN THE UNITED STATES

(Testimony of Abraham B. Bergman, M.D.)

Mr. CHAIRMAN: I am Abraham B. Bergman, M.D., President of the National Foundation for Sudden Infant Death. I am Director of Outpatient Services at Children's Orthopedic Hospital and Medical Center and Associate Professor of Pediatrics and Health Services at the University of Washington in Seattle.

I first want to express my deepest appreciation to you, sir, on behalf of all of us interested in the problem of sudden infant death. The very fact that you have convened these hearings in the United States Senate on this tragically neglected problem is a signal event which could well mark the turning point in efforts to remove the destructive veil of ignorance which surrounds the disease.

#### WHAT IS THE SUDDEN INFANT DEATH SYNDROME?

Sudden infant death syndrome (SIDS) is best defined by describing a typical case. An apparently healthy infant, usually between the ages of three weeks and six months, is put to bed without the slightest suspicion that things are out of the ordinary. He may have signs of a slight cold. Some time later, without any warning, the infant is discovered lifeless. The autopsy reveals a minor degree of inflammation of the upper respiratory tract and some congestion of the lungs. Otherwise, there are no lesions sufficient to account for death. In about 10% of cases where infants die suddenly and unexpectedly, a definite cause of death is identified at autopsy, such as a bacterial infection, an inflammation of the heart or bleeding in the brain. All of these can cause sudden death, and such children should not be considered to have SIDS. Approximately 90%, therefore, of infants who die suddenly and unexpectedly are victims of a disease which we call sudden infant death syndrome.

#### INCIDENCE

We estimate that approximately 10,000 infants a year die in the United States of SIDS. This figure was derived from communities where all infant deaths were carefully monitored (e.g. Philadelphia, Cleveland, Seattle, San Diego, Kingston, Ontario; Belfast, Northern Ireland; Prague, Czechoslovakia). Interestingly, the incidence of three per 1,000 live births, or one out of every three hundred babies, seems to be constant in all of these communities spread around the globe. An interesting exception is a study from Olmstead County, Minnesota where an exceptionally low rate of 1.2 cases per 1,000 live births was recorded. The figure 10,000 then is reached by plugging in the total number of births per year in the United States. (A map estimating the number of crib deaths in each state for the year 1969 is attached to this testimony.)

How does this figure compare to other causes of death in children. The largest group of infants who die, do so during the first week from complications of prematurity. When the first week of life is excluded, however, SIDS ranks by far as the greatest cause of death during the first year of life and second only to accidents as the greatest killer under age fifteen years. SIDS outranks deaths from all types of birth defects including heart disease. Over twice as many children die of SIDS than cancer. (A table showing the causes of death in children in King County, Washington for a three year period is attached.)

#### HISTORY OF SIDS

SIDS is not a new disease. References are made to "overlying" in the Bible. A Scottish physician by the name of Templeman wrote an article about SIDS in the *Edinburgh Medical Journal* in 1892. Regrettably, he described his cases as suffocation, ascribing the cause to

carelessness of parents. Because of the aura of mystery which has surrounded this condition both among the lay public and medical profession, virtually all parents feel themselves to be responsible for their child's death. The resultant toll of broken spirits and mental illness from needless guilt reactions has been enormous.

Theories have abounded to explain why previously well infants are suddenly found dead in their cribs. The first international conference on the causes of sudden death in infants held in Seattle in 1963 marked a turning point in SIDS research. What little organized research that had been conducted took place mostly in overworked and underfinanced coroner's offices. To this day, the amount of research being conducted on SIDS is still minuscule in relation to its importance.

#### THE TWO INTERNATIONAL CONFERENCES ON SIDS

The two international conferences in 1963 and 1969, both sponsored by the National Institute of Child Health and Human Development, were extraordinarily productive.

The proceedings of the first conference in 1963 were notable for cataloging and critically evaluating available theories about sudden infant death and charting pathways of future research needed to answer the questions raised. At that first conference it was not possible even to say that sudden infant death syndrome was a distinct disease entity. Several of the research paths recommended at the 1963 conference were subsequently followed resulting in significant advances, particularly in the fields of epidemiology; pathology and virology. By the time of the second international conference in 1969, held near Seattle, it was finally possible to say that sudden infant death syndrome is a real disease entity that is readily definable and not some vague mystery killer.

#### KNOWN FACTS ABOUT SIDS

In epidemiology we learned that the incidence of one out of 300 live born babies was amazingly constant in different parts of the world. SIDS is more apt to occur in babies born prematurely and in those living in overcrowded conditions. We learned about the peculiar age incidence, namely, that it rarely occurs before the age three weeks or after eight months. The peak incidence is at the two or three month age period. It occurs more often in winter months and almost always during sleep.

The distinguished pathologists at the conference spelled out the criteria whereby a positive diagnosis of SIDS could be made. No unusual or expensive tests are required. The diagnosis can be made on a routine type of post mortem examination. Finally, it was shown that no single killer virus is involved; the same viruses that cause common colds are associated with SIDS.

As was also the case at the first conference, future research pathways were recommended. Among them being, the need to come up with some type of animal model of SIDS and concentration in elucidating the exact mechanism of death. Also, as was the case following the first conference, the proceedings were edited, published and widely disseminated throughout the scientific community. These two publications, both subsidized by NICHD, are invaluable resources for all who seek knowledge about the disease.

#### CURRENT STATUS OF RESEARCH

My colleagues, Drs. J. Bruce Beckwith, C. George Ray, and I, in Seattle, have studied every single case of sudden infant death syndrome occurring in our area since January 1, 1965. To date, we have intensively investigated approximately 470 cases. We feel that SIDS occurs because of a sudden closure of vocal cords during sleep shutting off the airway. For reasons that I shall not detail here, we feel that this catastrophic event is mediated through nerves that control the vocal

cord and that the presence of a viral infection somehow causes them to be more sensitive and susceptible to spasm. Certainly not all investigators agree with us. Others, such as Dr. Edward Shaw in San Francisco, feel that the airway suddenly becomes obstructed at a higher level than the vocal cord and that the babies who die are those who have not learned to open their mouths when their nasal passages close. Still other investigators feel that something goes wrong with the nerves that control the heart.

I report two very hopeful developments that should certainly be classed as preliminary observations. Dr. Alfred Steinschneider at the Upstate Medical Center in Syracuse who has long studied the development of the autonomic nervous system in infants has found distinct changes in the behavior of certain infants at the two to three month age period during sleep while they have colds. This and other observations have led to the planning by NIH of an important collaborative study by sleep physiologists (scientists who study different bodily functions during sleep) in Los Angeles and New York.

At the University of Washington, Dr. Orville Smith, a physiologist who heads the Primate Center, and his associates have observed that some infant monkeys die during sleep. Dr. Beckwith, a pathologist, has found their autopsy findings closely resemble those of human infants dying of SIDS. I should emphasize that a great deal more work must be done to confirm these preliminary findings. But if, in fact, they pan out, we could have our long sought after animal model of SIDS. Drs. Ray, Smith and Beckwith plan to make intensive observations on the infant monkeys in an attempt to simulate SIDS, a requisite step before possible preventive measures can be postulated.

#### FEDERAL SUPPORT OF SUDDEN INFANT DEATH RESEARCH

Mr. Chairman, I am of two minds about the adequacy of research support for SIDS. Firstly, I am extremely grateful for what NIH has done in the past and yet believe a great deal more could have been done and, indeed, should be done in the future. From its very inception, the National Institute of Child Health and Human Development has placed a top priority on supporting research into sudden infant death. As I mentioned previously, NIH sponsored both international conferences and supported the publishing of the proceedings. In fiscal year 1971, NICHD supported forty-three extramural research grants pertinent to SIDS totaling about \$1.8 million. One grant, the one in Seattle with Dr. Ray as the principal investigator, is the only one directed specifically to the cause of SIDS. The others are in areas of research that have been identified by scientists working in the field as being relevant to SIDS.

To my knowledge, NIH has never turned down a request for funds for a qualified research project in SIDS. What does that mean? It has to do with the review mechanism for grants at NIH which I wholeheartedly support. All applications are studied by panels of distinguished scientists, respected by their peers, outside of government service. These panels, called study sections, evaluate whether the purposes of a proposed study are worthwhile, whether the proposed methods are likely to achieve the desired results, and whether those making the proposal possess the necessary expertise to do what they say they want to do. Though, doubtless, mistakes have been made, this system of passing upon grants has received universal acclaim in the scientific community; and I submit that it is the only way in which taxpayers' money can wisely be spent in scientific research.

I can also testify that the first Director of the National Institute of Child Health and Human Development, Dr. Robert Aldrich, now Vice President for Health Affairs at the University of Colorado, and his successor, the

present Director, Dr. Gerald LaVeck, have had deep personal commitment to SIDS research. The problem simply has been that scientists capable of performing quality research work, for the most part, have remained ignorant about the very existence of SIDS and have not turned their attention to its solution.

Could more have been done? Certainly! When it was known that there were not enough qualified investigators working in the infant death field, active efforts to solicit them should have been made. The Institute should have taken the initiative in contracting for scientific work that needed to be done instead of passively waiting for grant applications to come in. In the last few months, this effort is finally being made; the collaborative study in sleep physiology is one result.

What about funds? That's big problem. Though the National Institute of Child Health and Human Development received an increase in its budget during the past fiscal year, most of it went for population research. There was no increase in funds for child health research.

Frankly, the supporters of child health research carry very little clout either with the people who draw up the NIH budget, the Office of Management and Budget or you legislators up here on the Hill. Though this hearing was not called to examine how research priorities are decided in the United States, it is interesting to note that there is no research going on in accident prevention and only a minuscule amount of research on SIDS, the two big killers of children. I would venture to guess that this has something to do with the fact that those who make budgetary decisions are either heading into or already in their golden years. Kids don't vote!

#### HUMAN ASPECTS OF SIDS

Mr. Chairman, I have talked about the scientific aspects of sudden infant death syndrome; I should now like to turn to the human aspects. While much has been learned from research in the past decade and future prospects look hopeful, virtually no progress whatsoever has been made in the handling of sudden infant death cases in the United States. Virtually every parent whose infant dies suddenly and unexpectedly feels responsible for that death. The aura of mystery that surrounds crib death services only to reinforce and perpetuate this needless guilt. Moreover, the callous and inhumane handling of sudden infant death cases throughout the United States wreaks an incredibly large toll of broken spirits. Ten thousand infants perish every year in this country; they are gone. Ten thousand sets of guilty, grief stricken parents, however, are created every year and they live on.

Earlier I described a typical clinical picture of a case of SIDS. Now let me describe how that typical case is probably handled. When an infant is discovered lifeless, a call for help goes out responded to by police or firemen. Frantic resuscitation efforts are undertaken while the shocked parents hover in the background. A thoughtless comment like "It looks like another case of suffocation" or "probably choked on his food" are uttered.

Being that all sudden unexpected deaths come under the jurisdiction of a medical examiner or coroner, the body is removed to the local morgue. Police detectives come by to "just ask a few questions." "Did the baby give you any trouble?" "Could the other kids in the family have hit it?" Maybe an autopsy is performed and maybe not. A coroner's inquest is held. "What kind of care did you give this baby?" The verdict comes back, "death by suffocation," "smothering," "over-laying," "aspiration." The results of the autopsy may come back a week, two weeks, a month, six months, a year later.

The wife of a young doctor in Chicago last summer tearfully handed me a crumpled piece of paper labeled "death certificate" and



asked me what the words meant. On it were the words "tracheo-bronchitis." There had been a public coroner's inquest. I asked her what her husband thought and she dissolved in more tears. "He won't talk about it." If this type of treatment is afforded physician's families, picture if you will a family in an urban ghetto or on an Indian reservation. Picture a family where there is no father in the home, or where a babysitter was involved. It's ugly!

A woman called me from St. Louis last week asking for help. Her baby's death certificate read "aspiration pneumonia." I asked her if she had discussed the matter with her physician. She broke down and cried and said, "Why do you think I'd be calling you long distance in Seattle if I were able to talk to my physician; he refuses to speak to me." Lest the members of this Committee feel that I am exaggerating, I would respectfully invite you to examine the hundreds of letters that the National Foundation receives every month—letters that break one's heart.

Such letters break my heart because it is all so needless. The fact that survivors of crib death victims in the United States are treated like criminals is a national disgrace. With our present state of knowledge, crib death itself is neither predictable nor preventable. The divorces, the mental illnesses, the torment of unrelieved guilt are completely preventable. How? By the humane handling of infant death cases.

#### WHAT CONSTITUTES HUMANE TREATMENT?

Mr. Chairman, no longer should we have to tolerate callous coroners' or medical examiners' administrative procedures whereby families are kept waiting months for autopsy results or subjected to cruel inquests. Sudden infant death syndrome must be recognized as a disease entity. No family should be denied autopsies because of lack of funds. No longer should we have to tolerate the lack of instruction about sudden infant death among health professionals. Without knowledge there will be no impetus for new research nor will young health professionals be prepared to deal with the syndrome should it occur during the course of their careers. Every doctor in the United States should be prepared to offer the family more than the consolation of "these things just happen."

The National Foundation for Sudden Infant Death proposes a standardized procedure in every community in the United States for the handling of cases of infants who die suddenly and unexpectedly that is both compassionate and medically sound. Autopsies must be performed and parents promptly informed of the results. The criteria for the diagnosis of sudden infant death syndrome should be disseminated to coroners and medical examiners throughout the United States, and the term "sudden infant death syndrome" should be utilized on death certificates.

Every family should receive authoritative information about SIDS from a physician, nurse or other health professional who is both knowledgeable about the disease and skilled in dealing with characteristic grief reaction. These services should not be denied to families because of lack of funds.

I regret to inform the Committee that the Department of Health, Education and Welfare, with its multi-billion dollar budget, has been totally derelict in dealing with the human suffering created by sudden infant death. Strong action by this Committee would do much to alter their neglectful posture.

A major effort should be undertaken to increase the amount of research being conducted on SIDS by the National Institute of Child Health and Human Development. Consideration should be given to the establishment of regional infant death research centers. Such centers could perform autopsies on infants from localities that lack adequate facilities and provide skilled counseling for

families. Technical assistance could be provided to coroners and medical examiners' offices from these centers and, of course, the research effort in infant death would be boosted tremendously.

The major goal of our Foundation is that physicians and other health professionals, as well as the lay public possess sufficient knowledge about sudden infant death syndrome so that families who lose babies feel no more guilty than those who lose children to heart disease, cancer or meningitis. I respectfully submit that this objective is readily achievable.

Thank you for the privilege of appearing before you.

TABLE IV.—Causes of death of children in King County during 1965-67, demonstrating the numerical significance of SIDS

First year (excluding first week of life):	
Sudden Infant Death Syndrome.....	139
Congenital Malformations.....	66
Diseases of Early Infancy.....	47
Influenza and Pneumonia.....	36
Accidents.....	24
First 14 years (excluding first week of life):	
Accidents.....	192
Sudden Infant Death Syndrome.....	139
Congenital Malformations.....	110
Malignant Neoplasms.....	63
Influenza and Pneumonia.....	41

#### SUDDEN INFANT DEATH SYNDROME (By Judith Choate)

The National Foundation for Sudden Infant Death, Inc., established in 1962 as the Mark Addison Roe Foundation, Inc., was the first lay organization to propose a plan of public education about the sudden infant death syndrome as well as to provide understanding and information to SIDS families. The NFI was begun by parents who had lost an infant to the syndrome and SIDS families continue to be the major contributors to its growth. Volunteer parents, officers and Board of Trustees have led the Foundation from a family basement office in Connecticut to national headquarters in New York City, offering support and information to parents across the country; guidance to seventeen established chapters (plus many in formation); factual literature to the general public, medical and allied health organizations; promotion of SIDS educational projects and aid to qualified research projects.

The financial support of these same volunteers has kept its literature free of charge and paid the salary of the one staff member. The concern of the knowledgeable volunteer worker holding out a hand to others in time of crisis has alleviated the guilt and grief most often associated with SIDS for thousands of other SIDS families.

I began my work with the National Foundation for Sudden Infant Death, Inc. in 1965 after the death of my healthy, thriving five month old son. He was found dead in his crib in the early morning after his normal night time sleep. Unlike most families who are faced with the death of their infant to SIDS, we were aware of both "crib death" and the Foundation. We immediately notified the fire and police resuscitating units and our own pediatrician, and it was, of course, useless.

If we had not been aware of the problem, our case would be much like the cases of most families in the United States. Our baby's body was left in our house, in a closed room, with a policeman guarding the door until late in the afternoon at which time a medical investigator from the Medical Examiner's office interviewed us and observed the baby. If a death is unexpected and unexplained, one is, at first, suspect; and we were, in fact, suspected of criminal neglect

and not treated as parents grieving over the death of their child. We were asked such questions as "How many times did you hit the baby?", "Did your other child choke or in any way abuse the infant?", "Did you let your dog bite the baby?" If we had not been confident that our child was a victim of SIDS, one can imagine the guilt and self-accusation such questions can elicit as is the case for most families.

In the seven years I have been involved in the work of the National Foundation for Sudden Infant Death, I have spoken to, consoled and informed hundreds of families. Families who have not only suffered the loss of a loved infant but agonized over their own feelings of responsibility for it, the ignorance of their communities, the accusations of infanticide by neighbors or relatives, the lack of knowledge of their physicians and countless other emotional strains. In many areas of the United States autopsies are not performed on SIDS victims. In others, if they are performed, a substantial fee is charged the family. It is the rule rather than the exception that families must wait months to hear the results of an autopsy from a medical examiner's or coroner's office. The latter was made especially poignant recently when I received a call from a mother who had seen me on a local television show. She had lost a son on the same day and in the same year that I had and, seven years later, is still waiting to hear from the medical examiner's office as to the cause of death. All of these only reinforce the natural guilt that parents feel after losing an infant suddenly, unexpectedly and with no explanation.

Each day, we receive correspondence from families in every area of the United States who have lost children to the sudden infant death syndrome asking for help and information. Families who feel abandoned by their communities and by their physicians. I quote, "Do you think I killed my baby or did she really die from 'crib death' and what is 'crib death'? Please help me, I don't want to kill my new baby." "It wasn't until a few months ago, two years after our daughter's death, that we found out about your organization. It is a long time to go around wondering and feeling guilty." "The guilt we feel is tremendous, please help us." "We had an autopsy performed. They listed the cause of death as 'bronchial pneumonia' which the doctor said was a common use for 'crib deaths'. Why would they say 'bronchial pneumonia' if it was 'crib death'? Why don't they say 'sudden infant death syndrome'?" "Our pediatrician said 'She's dead, what do you want me to do?'"

"The police beat us to the emergency room and the homicide detective began questioning me even before the doctor had pronounced the baby dead."

Only time and concerted research efforts will find a cause and cure for the syndrome; however, much can be done now to alleviate the guilt and suspicion of the victim family. Particularly with involvement of national, state and local governments to promote SIDS research, upgrade autopsy procedures, disseminate the criteria for the post mortem diagnosis of SIDS to coroners and medical examiners throughout the country, to enforce the use of the term "sudden infant death syndrome" on death certificates, distribute authoritative information through health departments, coroners' and medical examiner's offices and law enforcement agencies and to insure that no family is assumed guilty of criminal neglect until such accusations are proven, the burden of the victim family will be eliminated.

The National Foundation for Sudden Infant Death, Inc. asks that each and every family experiencing an SIDS be given the chance to face the death with knowledge and dignity. We have pledged our entire resources to this end. We request the assistance of all agencies and individuals con-

cerned with the welfare of not only the child, but the entire family unit, to help us make dignity a part of the lives of 10,000 families a year.

STATEMENT FOR HEARING ON "SUDDEN INFANT DEATH SYNDROME"

(By Frank Hennigan)

On the morning of August 5, 1969, my wife and I rose from our bed and set about our daily routines. While I was shaving, Diana, my wife, checked on our still sleeping six children (aged 10 years to 7 months) only to find, to her horror, that our infant son was apparently dead.

In my panic, I seized the child from her arms and screamed for her to get the keys to the car. I ran outside to the car, yelling all the way for her to hurry. While waiting for Diana, I attempted to give mouth to mouth resuscitation but Jimmy's jaws and lips were tightly drawn together. I laid him down on the car's front hood and jammed the fingers of both my hands into his mouth and forced it open. I knew he was dead but my emotions still ruled over my intellect and I again attempted mouth to mouth resuscitation. I continued this activity as my wife drove to the hospital. Needless to say, there was no positive response from my child—only a sound resembling pulmonary edema caused by my own breath being forced into his lungs.

At the hospital, it was immediately obvious to those unemotional, unexcitable, calm, "professional" medical authorities that the child was dead and therefore there was a more interesting subject to be discussed. "Had the child fallen?" "Were there symptoms of illness? Etc." The doctor who pronounced Jimmy "Dead On Arrival" stated to me that "He looks like he's been squeezed. How about that, Mr. Hennigan?" My answer was "Go to Hell!"

We returned home and told our remaining children the sad news and set about making funeral arrangements. A few hours later we were notified that the dead child we had just taken to the hospital was now at the city morgue and that we were obliged to report there and identify the body. Under the circumstances, I felt this was extremely cruel as well as unnecessary but, of course, we did as directed.

About mid-afternoon, we noticed an unmarked car pull up in front of our house and a man get out and head toward our door. He had no jacket on. The thing that made him look conspicuous was the revolver jammed down, half exposed, under his belt. He introduced himself as Detective Goldberg of the Criminal Investigations Department and explained that it was his job to determine whether there was foul play involved in the death of our child. His line of questioning was typical of what Joe Friday employs on "Dragnet". I was asked "When you saw your child was not breathing, why didn't you call the fire department?" My answer was "Because the house wasn't on fire. I thought my son needed a doctor not a fireman."

In Detective Goldberg's report which was read at the Coroner's Jury Inquest he stated words to the effect that "Mr. and Mrs. Hennigan have five other children. They appeared to be well fed and cared for. There was no evidence of abuse or maltreatment. They were clean and well-clothed. The house was neat and fully furnished. There was every indication of a pleasant harmonious household." We were told that there would be an inquest in a few weeks which would require our presence.

The cruellest part of this whole nightmare was the inquest. I asked that my wife be spared this additional assault to her emotional stability and mercifully, she was excused. The supposition is that a panel of experts, forming a jury, is to listen to all the facts associated with the death of the child and then decide whether the evidence

warrants prosecution. In actual fact, the coroner's jury consists of aging political appointees who are neither expert in law nor medicine and who rubber stamp the conclusions made by the States Attorney's office.

I stood tearfully as the official read the "facts"—"Caucasian male, two feet, four inches long, twenty eight pounds; no social security number . . . cerebral spinal fluid negative for arsenic . . . evidence of healed fractured rib probably sustained at delivery . . ." His conclusion, following his statement of all the facts, was that there was "No evidence of foul play." The jury retired to their deliberation room and returned within five minutes to report their agreement that indeed no crime had been committed.

My feeling is that it is a crime to subject loving parents, grieving for their child who has been stricken by "crib death," to such treatment. Sudden unexpected death in children should not be handled by the intern on duty in the hospital emergency room and the disposition of the body left to clerical aids. An elected coroner speaks well for his own personal charm but says nothing for his qualifications as a forensic pathologist.

It is my understanding that in a Medical Examiner's System as opposed to Chicago's Coroner's System children who are received "Dead On Arrival" at any hospital must be examined by a forensic pathologist on the spot. If, in his opinion, based on both medical and legal training, there is need for legal action, so be it but for an intern, fresh out of medical school who has had no training about or contact with Sudden Infant Death Syndrome, to be playing detective is ludicrous. A Medical Examiner's System, with qualified and knowledgeable pathologists, will save hundreds of parents who are confronted with this dread disease each year from unnecessary and unwarranted criminal investigations. As one can well imagine they have enough to deal with managing to maintain their sanity and marriage and family and attempting to explain to their not too understanding relatives how their happy, healthy infant could possibly have died.

SUDDEN INFANT DEATH SYNDROME

(By Arthur A. Siegal)

On the evening of December 24, 1966, our sixteen month old happy, healthy son, Danny, was put to bed, along with his older sister, at their usual bedtime after spending a normally hectic day. I looked into his room at approximately 12 midnight before going to bed and he was sleeping peacefully. Since he was still in a crib, he had kicked his blanket off and I can remember covering him.

When I got up at 7:00 a.m. the following morning, I went in to check the children. I first went over to Danny's crib and realized that he was not breathing. I picked him up and listened for a heart beat. There was none. Danny was dead. Although I knew rationally that he was dead, I called to my brother-in-law, who was our houseguest, and he tried by mouth-to-mouth resuscitation to revive him while I called the police and our pediatrician. The police arrived within minutes. My brother-in-law met them at our front door with Danny and they (the police) placed the mask of a resuscitation unit over Danny's face and took him directly to the Emergency Room of the hospital which was five minutes from the house. My brother-in-law, wife, and I followed in our car.

We arrived at the hospital a few minutes after the police, and were met at the Emergency Room door by the nurse on duty who simply said, "I'm sorry." The two policemen also expressed their sympathy before they left. We were treated with every kindness but received no facts until our pediatrician arrived a few minutes later. He was visibly badly shaken. He said that he felt that Danny had died from "crib death" and asked that we allow an autopsy to be performed. He told us that he had had two

other "crib deaths" in his practice over the last six years and continually stressed that we were in no way to blame and that his death could not have been predicted or prevented.

We did, of course, allow the autopsy to be performed and the results (which took approximately 10 months to receive) revealed, all findings to be negative and the cause of death was stated as "Hemorrhagic Pneumonia" with sudden, unexpected death in parenthesis.

As we had only lived in New Jersey a short time, we still maintained a very close relationship with our pediatrician in New York. When my wife called to tell him of Danny's death, he again assured us that we were in no way to blame and that he had had several SIDS in his own practice. In fact, his brother, who was also a pediatrician, lost his child to SIDS.

Both my wife and I were indeed fortunate that on the day of Danny's death and the days following, we were surrounded by informed, understanding and kind professional people. We were also fortunate in the fact that we had been aware of SIDS before Danny died, and therefore could accept the facts and not blame each other or ourselves for his death.

Even with the intellectual knowledge that there was nothing we could have done, guilt feelings still occur especially when family members and friends cannot accept the fact that a beautiful, healthy child is found dead for no apparent reason.

None of our immediate family or close friends had ever heard of SIDS and there was then, and still is today, the doubt in some of their minds that we were neglectful to our son and that if we had been "better parents" Danny might still be alive today. Many of our friends, some of them who had children the same age as Danny, could not handle the situation and could not face us. As a matter of fact, one couple never spoke to us again.

SIDS, as its name implies, leaves the immediate family with a "high grief" reaction. With SIDS there is no extended illness or time to prepare for the child's death. Death is instantaneous and in many cases is not accepted until weeks later. Our only strength came from the one fact that we knew we were not to blame and that there was nothing that could have been done to save him.

Approximately four weeks after Danny's death, my sister-in-law sent us an article entitled, "Crib Deaths: Search For A Mystery Killer", that had appeared in the Saturday Evening Post. This article mentioned the Mark Addison Roe Foundation. My wife immediately called and was fortunate enough to talk to Mrs. Judith Choate who is now the Executive Director of the NFSID, and had herself lost a son to SIDS. All the consolation, understanding and comfort given SIDS parents by professionals and friends cannot replace talking to another parent who has experienced this tragedy.

In the years following Danny's death, we have been in contact with many families whose children have been the victims of SIDS. Although we were fortunate in the way our case was handled by the professional people we had contact with, we seem to be very much in the minority. We know the urgent need for public education about SIDS, and for reforms in the Medical-Legal system in regard to this disease.

SUDDEN INFANT DEATH

(Statement of the International Guild for Infant Survival, Inc., Baltimore, Md.)

Thank you, Senator, for this opportunity to exercise my participation in our democratic form of government. Accordingly, I speak before you as a private citizen, as a father for his family, as a parent who has personally experienced the tragedy of Sudden Infant Death, and as President of The International Guild for Infant Survival and



Chairman of the International Council for Infant Survival. In all these capacities, I thank you and the Committee for your interest in what we call Sudden Infant Death and for your holding this hearing. On behalf of everyone I represent here today, we greatly and gratefully appreciate your concern for the very lives of our young children.

I need not dwell on the characteristics and details of Sudden Infant Death for I would like to assume we all understand something of its nature and tragedy. But I would like to say a personal word for background purposes.

My family experienced our own Sudden Infant Death tragedy when we suddenly lost our daughter Suzanne on Wednesday, December 4, 1963, a scant 12 days after the tragic assassination of President Kennedy. If you can recall the magnitude of your own shock and our nation's grief at the loss of this great leader, then you have some insight into the magnitude of our own personal shock and grief at the loss of our normal, healthy, beautiful little 2-month-old girl! Multiply this by the thousands of similar sudden deaths of equally precious babies and you begin to obtain some idea of the disastrous proportions and extent of this major problem of infant mortality.

In trying to discover as much as possible about this unknown killer of infants, we were frustrated as individuals to learn that little or nothing was being done anywhere to get to the bottom of this phenomenon, and that very, very few people, including physicians and public health officials, knew anything about it. In fact, many never heard of it before, or had some misconception about it. So, in the true spirit of American togetherness, friends and strangers banded together for common purpose in pursuit of this killer in our midst.

And so The Guild for Infant Survival was founded in Baltimore in late 1964 . . . to fight this killer, to help solve the mystery of Sudden Infant Death, to eradicate it from the face of the earth and save the lives of thousands of infants here in our own country and around the world as well. From the beginning, we established three main purposes: to help families understand about Sudden Infant Death and its ramifications, to educate and arouse the general public to an awareness of its seriousness and scope, to support and encourage medical and scientific interest and activity in the study of this puzzling mystery.

The Guild for Infant Survival has grown to 10 affiliated autonomous groups, 25 regional representatives in various states and communities from coast to coast, plus personal or medical contacts in almost a dozen countries over the globe. The Guild is a membership organization of both stricken parents who know first-hand about Sudden Infant Death and those who have the good fortune to be spared but share our concern—who have a voice in what we do and how we do it. Their work is done on a voluntary, spare-time, unpaid basis. In addition to members and contributors, there are many who serve and support us in a variety of ways individually and through other groups and organizations, so that there are literally thousands of citizens involved with us.

In communities where Guild groups are most active, the problem of Sudden Infant Death is no longer unheard of. For people have come to realize that, instead of sticking their heads in the sand, or ignoring this problem, the way to solve a problem is to face it, honestly . . . squarely . . . meaningfully. At least 4 research projects have been given impetus due to the efforts of our Guild groups, and there may be more. We estimate that Guild contributions directly for Sudden Infant Death research now approximate \$30,000 without large corporate, foundation, or public funds, donated by ordinary, wonderful people who really care about our kids.

The Guild reaches out its hand of friend-

ship and its heart full of understanding to hundreds, perhaps thousands of "crib death" families. You can imagine how heavy the burden of self-guilt must hang over the family and anyone else with the baby at the time, and how important it is to relieve that unnecessary weight with information and compassion. Our Guilds bring these parents and the public in closer contact with researchers themselves and their facilities, sponsor meetings with health personnel, and held the first parent-medical conference in 1969.

We have succeeded in bringing our own state health officials to recognize Sudden Infant Death as a legitimate cause of death on medical certificates, to undertake special studies and statistical tabulations, and to call on us in time of need and cooperation. In Maryland, state appropriations to complete the research floor of the new Medical Examiners Building were obtained with Guild help so there would at least be a place in which research could begin, and in which it has.

Our Guild groups are satisfied that we can successfully aid and console the families of these young victims, provided we can expect the cooperation of medical authorities and public health officials, especially in verifying the serious extent of Sudden Infant Death. Much of this is also true when we reach out to the general public but the need for greater Government participation is more so. This is because the mass media which influence public knowledge and opinion so dramatically and extensively turn to those in a position to know and inform.

In the first few years of Guild for Infant Survival activity, it was very important for us to impress upon those we contacted that there was such a phenomenon as Sudden Infant Death and that it was serious. Although much correspondence were exchanged with Federal health officials and visits made to the National Institutes of Health, we could not obtain a relatively simple written statement acknowledging the true nature and extent of Sudden Infant Death. Nor could we find even one reference to this problem in any available Government publication on health, infant care, or mortality statistics. And I am speaking in general terms, not in specifics more difficult to come by. In fact, it wasn't until a year or two ago that we finally received statements in writing that were pertinent and helpful. I don't think these services of Government, which exist for public good, should be so withheld, and I certainly shudder to think that the National Institutes of Health has a "head in the sand" attitude.

Beyond this, most of the problems we have encountered lie in the direction of skimpy medical activity to stamp out this killer, and our intention as a Government to seriously pursue this goal. In order to ascertain the status of basic knowledge and information known about Sudden Infant Death, our Guild in Baltimore undertook a nationwide survey. A questionnaire concerning Sudden Infant Death was mailed to the chief health official of each of the 50 states and the District of Columbia in June 1971. Within 2 months or so, replies had been received from all but 9 states. Thirty-nine (39) states and the District of Columbia returned completed questionnaires and two states submitted their information in letter form. I should like to refer to the preliminary analysis of this survey in this statement now.

It seems logical to assume that before we attack a problem, we should all understand what the problem is. This involves terminology, definition, description. In the 8 years of our involvement, there is still no uniform, accepted definition, no standardization description—and worse, no universally designated name or term. We are all familiar with the variety of names in current use: Sudden Infant Death, Sudden Unexplained Infant Death, Sudden Death Syndrome, Sudden Death in Infancy, etc. It is difficult to believe

that we have yet to take this obvious initial step in official recognition.

Our questionnaire replies revealed 16 different names or phrases being used to identify what is essentially the same phenomenon. "Crib death" was most frequently named, by 20 of the 42 jurisdictions replying; Sudden Infant Death was second with 7 states. Nine (9) states used no official designation at all and 6 states were guided by the certified cause of death or pathological diagnosis. In only 14 states was a single designation employed, but there were still 7 different terms used among those 14 states! Nine (9) states used two terms and 4 states used 3. This illustrates a confusing situation in naming the problem we are talking about and trying to solve.

The Guild for Infant Survival recommends use of the term "Sudden Infant Death" in cooperation with other parent groups. To use "crib death" implies death in the crib, but this is not always true and may be misleading if officially adopted. It may, however, have value in colloquial usage. Sudden Infant Death is simple, direct, and easily understood by stricken parents and scientific researchers.

Along with a name should be a definition. No uniform or standard phraseology exists. I understand that just recently the National Institute of Child Health and Human Development has circulated a suggested one. But earlier this year, the Guild delved into this shortcoming with our medical advisors and proposes the following working definition: The death of an ostensibly healthy infant or young child which occurs suddenly and unexpectedly and which remains unexplained after post-mortem examination.

Before any name and definition agreed upon can be of value, their use must be recognized and accepted by the state filing information. In our survey, 5 states replied that no term is acceptable. Twenty-seven (27) states said they did recognize and accept one of the terms but 8 more qualified their affirmative response; for example, only if no other cause could be found or if the certifying authority used it.

Another fundamental piece of information needed before a logical attack can be made on Sudden Infant Death is, we think, to know the frequency and its relation to other health problems and causes of infant mortality. We all know about the International Classification of Diseases and Causes of Death (Adapted) and its detailed classification of all health problems with accompanying code number identification. One would expect to find some specific category within this system for our subject today. Sudden Infant Death (or some related terminology). There is none. Yet if we look far enough, we find a catch-all category of ill-defined causes or conditions.

Our survey revealed use of two such categories in this section frequently mentioned by state health officials. The state of Indiana put it the best way: "Sudden Infant Death is recorded in accordance with the 8th Revision International Classification of Diseases and with instruction from the National Center on Vital Statistics. SID is classified in the Symptoms and Ill-Defined Conditions Category '795 Sudden death (cause unknown)'. A crib death diagnosis is charged to '796.2 Found dead (cause unknown)'. If a more specific cause is indicated the death is charged to that category; e.g., interstitial pneumonia, asphyxia, etc. . . ." In our discussion here, I think it is agreed among the experts that Sudden Infant Death and crib death are one and the same. Yet the International Classification is used to split these into two parts (above). Note also that neither category makes any reference to age. Adults as well as infants can and do become tabulated in both classifications. In the Guild survey, 8 states use both categories, 18 states use one or the other, 4 states use some variation of the two, 2 use a supplemental num-

ber, a couple of states use the accidental death category (E913); one used other conditions of newborn (778.9) for crib deaths under 28 days. Thirty-one (31) states mentioned some code number, 5 mentioned none, 5 were indefinite. Mention was also made of the imprecise or vague specification as to age, as not being sufficient for Sudden Infant Death.

The Guild for Infant Survival believes it is important for the National Center for Health Statistics to officially propose before the forthcoming Revisions Committee of the International Classification of Diseases a separate and specific classification term and code number for Sudden Infant Death. With the Federal health authorities showing the way for the states—as formally proposed by resolution of the state assembly of California—this revision would be a monumental step in the right direction.

This special classification and coding is essential to the accurate state tabulations of crib deaths. Fifteen (15) states reported no official tabulation in state health statistics; 25 said they do, especially when age is considered, but noted variables. Minnesota responded when asked if SID's are tabulated in state statistics: "Yes but, the variations in methods of certification and coding lead to some confusion. ICDA 795 should include the total—but some are coded 796.2 for various reasons." Tennessee said: "Those rules for selecting and classifying the cause of death are quite sensitive to the manner in which the medical certification is completed. Thus, in interpreting data regarding cause of death it is important to remember that a slight variance in the statement of cause of death may result in an appreciable difference in the cause to which the death is assigned by using the standard rules."

North Dakota noted the extra effort required: "... No separate tabulation has been made of 'crib deaths' or 'sudden death of infants' other than the fact that these would be in the total of 'ill-defined' causes. To tabulate differently would require individual examination of each infant death certificate by a qualified medical person which service is not available to the Division of Vital Statistics (N. Dak.) at this time."

The National Institute of Child Health and Human Development is fond of quoting statistics which we believe are, in reality, too low. References are continually being made to projections based on 2 to 3 sudden infant deaths per 1,000 live births, to rationalize estimates as low as 7500 and as high as only 12,000. We believe even the higher estimate to be too low in the overall significance of the problem. Our reasons are these: Projections for the entire country are based on only 2-3 study areas like Seattle and Philadelphia. Yet the Chief Medical Examiner of Maryland noted the Sudden Infant Death rate in Baltimore as 6 per 1,000 live births. Since we are told there is a correlation between Sudden Infant Death incidence and general infant mortality, it would seem that SID incidences would be higher in areas with greater infant mortality, as in the South, thus increasing the total annual number.

Then there is the problem of finding and tabulating every Sudden Infant Death. Even as successful and enlightening as we have been in Maryland, there are still occasions when there is no official record of a Sudden Infant Death which we have discovered privately, as through a hospital or the family itself or a relative or neighbor. It is likely these "hidden" cases are more frequent in less enlightened communities. It is not difficult to accomplish this, especially where affluence and influence coincide. Finally, no consideration of this syndrome can be complete without regard for the phenomenon of "near" Sudden Infant Deaths... when normal, healthy infants suddenly are found near death but for some unexplained reason pull out of this situation, recover, and re-

turn to normal. Yet competent medical examination cannot explain this strange occurrence. These, too, should be included in the SID count. For all these reasons, our Guilds and our local advisors believe it is quite possible the frequency of Sudden Infant Death could reach as high as 25,000 infants/yr.

For all this concern, with all these uncertainties and lack of knowledge, relatively little research funding has been granted by the National Institute of Child Health and Human Development (NICHD) down through the years. Here again, we have never been able to ascertain the exact extent of research funding. This continuing inability to pin down specific information, which should be available to the public, may lead to suspicious conclusions.

As of last year, the Guild was able only to estimate the extent of specific SID research funding by NICHD at about \$700,000 in the 8 years of Institute existence. It is also conceivable at the time that up to 200,000 American babies were lost to SID in 8 years. Simple arithmetic reveals that only \$3.50 per lost child was being spent. Even if we conceded the Institute's upper estimate of 12,000 SID losses per year, we would still be spending only about \$7.00 each.

In an honest attempt to prove or disprove our \$700,000 figure, we asked the Institute to provide us with a yearly breakdown of funding since its inception. It would seem logical that an index of research grants by title or specific subject would yield this data conveniently. Yet it took more than 2 months to obtain these statistics, and then only for the 1971 fiscal year. The information sheet listed 43 grants totalling \$1.8 million relating to infant mortality/SID, but only one specifically for Sudden Infant Death of \$46,000 (or \$2.4 per child). In 1970, there was only one grant, for \$33,000 (\$1.50-\$3 per child). Yet the total NICHD budget rose from \$76 million to \$94 million in 1971, with a \$5.7 million increase for support of general child health research, which includes crib death.

It is our position that the problem of Sudden Infant Death is too devastating and horrible to be explained away by 43 funding grants which may indirectly relate to the problem—that the magnitude and significance of the problem are so great as to demand commensurate and specific funding.

This lack of substantial funding is further explained by Government officials by a lack of "meritorious research ideas" or "qualified researchers." There are many potential researchers ready and willing to investigate SID in new and potentially promising directions. Although they may not meet the established standards of scrutinizing study sections, there are respected men of competence and position in their own fields and are worthy of a chance to explore their theories. It just may be that such a bizarre problem may require a bizarre or non-conformist approach, instead of standard or restricted technique.

We say this for two good reasons: First, we must always keep in mind the lives which are lost every day. I find it indecent and inhuman to wait for just the proper meritorious ideas to come along for consideration while our babies are being struck down before our eyes day in and day out. Second, the funds to support research are public funds, derived from us the taxpayers. The very fact that these same taxpayers in many numbers voluntarily and anxiously contribute their own monies to our private efforts to fund research serves as a mandate to public officials to put their taxes to use to save lives now!

Our proposal is sensible and meaningful: Establish a certain substantial sum of money earmarked specifically for Sudden Infant Death research. Invite all interested researchers to apply for funding. Then

choose those most capable and promising for funding. Make the most of what there is now; don't wait for an ideal who may never come. Only in this way will we know that our Government really cares about our babies!

Down through the years, NICHD has calmed us with repeated phrases that Sudden Infant Death has a high priority for attention and action. That it is the greatest single killer of infants from one month to one year of age. And more. Looking back, however, relatively little has been undertaken and even less has been accomplished. It is almost as if there were no such entity as Sudden Infant Death if you search the records and literature... even though thousands of empty cribs, tiny graves, and broken hearts bear mute evidence of the total destruction of this killer in our midst.

Is this, then, the record of a Government which serves the people? In seeking to solve every problem of man's development from prenatal care to geriatrics, does a problem like Sudden Infant Death get lost in the overwhelming responsibilities of this comprehensive health Institute? Is Government's priority and present preoccupation with birth control and population growth conflicting with the saving of the lives of newborn babies? The time has come for our Government to back up its words and intentions with dollars and sense! We spend millions in research to perfect birth control devices, but paltry thousands to save new human lives we love so much. Where is our sense of values?

Experience indicates that Government does not act on its own initiative to solve serious problems, but only reacts when some unexpected, disastrous episode compels it to positive action. Are these daily unexpected disastrous episodes too commonplace to attract urgent, serious action? Are these infant tragedies therefore being compounded by inaction?

We of The Guild for Infant Survival cannot keep silent and watch more children die in vain without lifting a finger and raising our voices. We cannot ignore these daily tragedies happening before our very eyes... watching these precious babies slip through our hearts and homes! And America cannot afford to sit idly by while millions of hours of manpower and talent which could be put to peaceful and productive purpose are buried forever.

These departed children can no longer speak for themselves... so we of The Guild for Infant Survival speak for them, so they shall not have died in vain. We come to plead for the lives of future generations who face this same horrible threat of sudden death at the very beginning of life.

No one can say who will be touched in the weeks and months ahead. We do know there will be many; unfortunately, far too many. How much longer will our babies—yours and mine—die so tragically and so unnecessarily? How much do we really value life itself?

Today, you have a golden opportunity given to very few: to save thousands of lives every year in every future generation of mankind... by considering and acting on what we have said here today... to speed the day when no more babies will die...

John Donne said it best:

"No man is an island, entire of itself. Every man is a piece of the Continent, a part of the main... Any man's death diminishes me, because I am involved in Mankind. And therefore never send to know for whom the bell tolls, it tolls for thee..."

#### FACTS ABOUT SUDDEN INFANT DEATH SYNDROME

##### THE BASIC FACTS ABOUT SIDS

SIDS is a definite disease and is the number one cause of death in infants after the first week of life.



SIDS cannot be predicted or prevented, even by a physician.

The cause is not suffocation, aspiration or regurgitation, although sometimes death certificates use such terms in error.

A minor illness such as a common cold may be present, but many victims are entirely healthy prior to death.

There is no suffering; death occurs within seconds, usually during sleep.

SIDS is not contagious in the usual sense. Although a viral infection may be involved, it is not a "killer virus" that threatens other family members or neighbors. SIDS rarely occurs after seven months of age.

SIDS is not hereditary; there is no greater chance for it to occur in one family than in another.

The baby is not the victim of a "freakish disease." About 10,000 to 15,000 babies die of SIDS every year in the United States (two or three per 1,000 live births).

SIDS is at least as old as the Old Testament and seems to have been at least as frequent in the 18th and 19th centuries as it is now. This demonstrates that new environmental agents, such as birth control pills, fluoride in the water supply and smoking, do not cause SIDS. Despite increased attention in the literature in recent years, the incidence of SIDS is not rising.

Recent research shows that SIDS causes over 85 per cent of sudden unexpected death in infants.

#### MOST FREQUENTLY ASKED QUESTIONS

##### *What is SIDS?*

SIDS (Sudden Infant Death Syndrome), commonly known as "crib death" or "cot death," is a disease which causes from 10,000 to 15,000 infant deaths annually in the United States. SIDS has been with us since Biblical times, but only in recent years has it been recognized to be a "specific disease entity." It is best defined by describing a typical case.

An apparently healthy infant, usually between the ages of three weeks and seven months, is put to bed without the slightest suspicion that things are out of the ordinary. He may have signs of a slight cold. Some time later the infant is found dead. Often there is no evidence that a struggle has taken place, nor did anyone hear the baby struggling. Sometimes, though, the child has obviously changed position at the time of death. An autopsy reveals, at most, a minor degree of inflammation of the upper respiratory tract, but no lesion sufficient to account for death. Often the autopsy reveals absolutely no evidence of illness.

In about ten per cent of crib death cases, careful examination does demonstrate a previously unsuspected abnormality or a rapidly fatal infectious disease, such as meningitis or pneumonia. These particular children are not victims of SIDS. If death results from an infectious disease for instance, the family may need to have protective medication. A thorough autopsy can put the family at ease about this.

*How can a healthy baby die so suddenly without finding a cause at autopsy?*

Unravelling the mystery of death can be extremely difficult. A typical picture is seen which consists mainly of changes in the tissues of the respiratory system. The consistent pattern has in itself now established a definition of death as due to SIDS.

##### *Was it my fault?*

Virtually every parent feels responsible for the death of his child, until the facts are known. In untold thousands of cases much needless blame has been placed by one parent upon the other, by relatives upon the parents, upon a babysitter who happened to be with the infant at the time it died, or upon the family doctor who pronounced the infant healthy shortly before it died. We know of

families that have been broken up by repercussions arising from this problem. Therefore, it is important to make clear that recent research proves that *SIDS cannot be predicted*, and in the light of present knowledge *SIDS cannot be prevented*. The disease has no specific symptoms and occurs in the best families, to the most competent, careful and loving parents. Indeed, we often feel that the victims of SIDS are unusually robust, healthy, and obviously well cared for. Even when the infant has recently shown signs of a slight cold and has been taken to the doctor, nothing has been found that would lead him to anticipate SIDS. Regardless of how thorough the examination or of the treatment prescribed, SIDS cannot be predicted even by a physician. SIDS sometimes even occurs in hospitals to well babies admitted for minor surgery.

##### *Did my baby suffocate in its bedding?*

It is not uncommon for victims to be found wedged into the corner of their cribs or with their head covered by blankets. Sometimes their face is turned down into the pillow or mattress or is discolored. Under such circumstances, it is natural to assume the baby smothered. However, SIDS also occurs under conditions where there is no possibility of smothering. The baby is found without any articles of bedding, clothing, toys or pets around or near the face. The autopsy findings are identical in both types of cases. Investigators have found that even when infants are covered by bedding, the amount of oxygen is not reduced to the point of causing suffocation. Thus it is possible to say with certainty that *SIDS is not caused by external suffocation*.

##### *Could my baby have vomited and choked after his last feeding?*

SIDS is not caused by vomiting and choking. Sometimes milk or even blood-tinged froth is found around the mouth or on the bedding. This has been shown usually to occur after death, and at autopsy is found not to block the internal air passages.

##### *Can SIDS be prevented?*

There is no known way to prevent its occurrence. No symptoms exist, so extreme anxiety will serve no useful purpose. Although SIDS is not infectious in the usual sense, there are many health reasons why it is better to avoid taking a young infant into crowds of people.

This does not mean infants should be kept away from small family groups or kept away from others in their family. Babies need company and thrive on meeting others outside the immediate family. But this can be done without undue exposure to crowds.

##### *What causes SIDS?*

There have been many theories through the years as to the cause of SIDS. None of these have yet been proven and most have been discounted. Years ago an enlarged thymus gland was believed to block off the infant's airway. We know now that this does not happen. This assumption was made because the thymus gland of a healthy infant is large compared to that of an infant who has been ill. In the past, examining physicians were accustomed to seeing only those thymus glands of infants who had died of disease because few autopsies were done. We now find that some causes of SIDS had small thymus glands due to recent illnesses from which the infants had recovered.

Allergy to cow's milk has been suspected by some to bring on sudden reaction severe enough to cause death. However, recent studies on antibodies in SIDS cases have failed to support this theory, and some SIDS babies have received no cow's milk.

Other theories that have been discounted are: bacterial infection, radiation fall-out, use of modern machines and drugs, smoking, adding bleach to the diaper wash, "whip-

lash" injury to the spinal cord, air pollution, and fluoridation. It is important to emphasize that SIDS is not a new disease and is no more frequent now than it was centuries ago.

##### *Did my baby suffer?*

It is known that SIDS can occur within five minutes. It is probably almost instantaneous. There may be some movement during the last few seconds of life, accounting for the displaced blankets or unusual positions that are sometimes evident. However, the babies do not cry out and very often show not the slightest trace of having been disturbed in their sleep. Therefore, it is safe to conclude that *SIDS does not cause pain or suffering to the baby*.

##### *Was it something infectious? Is the immediate family in danger?*

SIDS is not contagious in the usual sense of the word. For example, sometimes one of twins in the same bed is taken by SIDS, yet the other is spared. There are seasons during which SIDS is more commonly seen but there is no reason for unusual concern in cases where an infant is exposed to an SIDS case.

SIDS virtually never happens after the first year of life, so older children are not at risk. There is no need to be concerned about contamination from clothing, bedding, or furniture of an SIDS baby. The common viruses which appear to play a leading role in SIDS do not survive outside living bodies.

##### *Would it have helped if I had breast fed my baby?*

Breast feeding does not prevent SIDS. Literature of previous centuries, when nearly all babies were breast fed, mentions the problems of sudden infant death. Recent research shows SIDS occurs to breast fed as well as to bottle fed babies. Breast feeding is recommended to mothers because the breast milk is usually well tolerated by the baby. Some additional antibodies are received from the mother in the colostrum which is present before the actual breast milk comes in. However, a baby is born with his major supply of antibodies that help him fight infection.

##### *What about babies we might have in the future?*

About two to three of every 1,000 newborn babies will die of "crib death" yearly in the United States. According to the best available data, *SIDS is not hereditary*. Therefore, it is probable that any future babies in a family will run no more than the random risk of two to three per 1,000. This is quite a small risk. *More harm than good may be done to a subsequent child by excessive anxiety over SIDS.*

##### *Is this a new disease? Aren't there more deaths of this kind now?*

There is evidence that SIDS has been with us since antiquity. In Biblical times it was referred to as "overlaying." Then, as in some cultures today, mothers slept with their infants. When a mother woke to find her child dead, she assumed she must have rolled over on him and caused his death. Any new mother, however, knows how aware she is of the new baby and how impossible it would be for her to do this.

We do not believe there has been an increase in the number of SIDS cases in recent years, but there is more publicity about them than in the past. Studies in many areas of the world consistently show the figures of two to three SIDS deaths per 1,000 live births. Enlightened communities list the cause of death as SIDS or "crib death"; other areas list them as "suffocation," etc. This is a tragedy for the family as it leaves them with a lifelong feeling of guilt by indicated neglect. This is absolutely untrue and unnecessary. In some communities, confusion still exists about this disease. Only recently have the research facts about SIDS been added to medical school texts.

*Do these deaths occur all over the world?*

There is evidence that AIDS is an extremely widespread condition. Studies of the syndrome in England, Ireland, Australia, Czechoslovakia, Canada, Denmark, as well as New York, Washington, D.C., Pennsylvania, Ohio, Washington, Oregon and elsewhere in the United States have all revealed similar rates of occurrence. We know that AIDS occurs in tropical climates of Florida and the heat of southern California as well as in the cooler climates of the Northwest and the Northeast.

With present day communications and transportation, researchers are able to keep informed of other studies and can meet together to discuss the course of further research with the hope that the solution to this problem will be found soon.

## PROBLEMS OF GRIEF

*About parents' grief*

After the initial shock and the numbness of the first few days begins to wear off, parents find that they are left with a prolonged depression. There will be "ups and downs" that can be brought on by a thoughtless or innocent remark from someone who doesn't understand the disease or by remembering that it is the same day of the week or date in the month that the baby died. At these low points, it is often very helpful for them to talk to a member of the "parents group." (See section on "Sources of Help and Information.") Only another parent who has had this same experience can convincingly say that things won't always look as they do today, that time really does make a difference. If there is no such person available, the family physician or minister can be reassuring.

Parents find that it is difficult to concentrate for any length of time. The mind wanders making it difficult to read, write, or make decisions. Some experience a "whirling around" sensation or pressure in the head. This is very normal and does not indicate that a person is losing his mind. *Sleep is difficult*, often leaving parents fatigued. If they have a family to care for or a job to get back to, they may need some temporary help from their doctor in the form of mild medication in order to get some rest. Even with sleep, the feeling of exhaustion persists.

Those in grief may experience muscular problems or other physical symptoms centering around the heart or in the stomach. Often there is no appetite, and they eat only because they know they must. They may feel "tied in knots" inside. Mothers nearly always say their arms "ache to hold their baby."

There may be an irresistible urge to get away, a fear or dread of being alone, or unreasonable fears of danger. If there are other children, parents fear for their safety and don't want to let them out of their sight, but at the same time may be afraid of or shun the responsibility of caring for them. Even with this concern about their children, there may be feelings of extreme irritation and impatience with their behavior. Parents rely a great deal on family and friends, but at the same time may resent their help and feel guilty about this. The situation is made even more difficult when the community around them does not understand AIDS. Friends or relatives who are trying to help seem to say the wrong things or do not understand the disease.

*The grief reaction of husband and wife may be different*

It is quite normal that husbands and wives express their grief in different ways and this is not always understood. For instance, mothers generally need to "talk out" their grief while fathers tend to suffer more in silence. Husbands are diverted by their work while wives are usually at home surrounded by constant reminders. Very often the loss of the infant is the first grief situation either parent has faced.

*Children's reaction to death*

Children will be affected in some way by a death in the family. A small child who is too young for explanations needs mainly to be shown love and affection by his parents for his own security. Little ones may have some very frightening thoughts that they cannot express. They may cling to the parents and do naughty things to get the attention they need. If there are older brothers and sisters in the family, one can expect special kinds of grief reactions. Children often feel terribly guilty about the death of a sibling. They often fear their own thoughts towards the baby could have caused its death. An older child should be told as much about the facts as he is able to understand. He should feel that this is an open subject in the family and that he can express his thoughts or questions about death as they arise.

Children may not show their grief in obvious ways. Because they cannot deal effectively with tragedy, they may deny it and seem quite unconcerned. *It is important to talk with brothers and sisters about the death and to discuss the fact that this was a disease.* It is best not to say "the baby 'went away' in sleep." It is important to explain that the reason the baby died is because of a disease that strikes suddenly to only a few infants of that particular age. Brothers and sisters should be assured that older members of the family including themselves are immune. (In cases where there is a surviving twin, the entire family should receive special counseling.)

Many youngsters have been a source of strength for the family. They have written poetry and verse and often have a very simple, unshakable faith about the pattern of life and death. Some children, on the other hand, because of circumstances or age or emotional make-up have felt great insecurity after an infant's death. This has manifested itself by nightmares, bed wetting, difficulty in school, and other disturbances. Any such problems should be discussed with the child's doctor.

*Close relatives, babysitters, etc.*

Occasionally the baby is in the care of relatives or babysitters when the death occurred. This is a special problem and counseling should be made available to them also. It is often helpful for them to have literature or talk with the doctor. At first parents may tend to blame the babysitter or to blame themselves for having left the baby at all. On occasion the mother has been blamed by the husband or relatives for the death of the baby. So it is important that everyone understands about the disease. Often giving literature is more helpful than trying to explain.

## SOURCES OF HELP AND INFORMATION

The National Foundation for Sudden Infant Death, Inc., 1501 Broadway, New York, NY 10036, Phone: (212) 563-4630.

This is a national organization with chapters in many areas of the United States. It maintains contact with and makes referrals to other groups and individuals concerned about Sudden Infant Death Syndrome, some of whom are not directly affiliated with it. (See "Role of Parent Groups," Appendix I, *Proceedings of the Second International Conference on Causes of Sudden Death in Infants*.) The purpose of the NFSID, Inc., is to assist parents, educate the community about AIDS, and promote AIDS research.

The Foundation was the first organization to call attention to the need for research and has awarded grants to assist several studies. It promotes and sponsors programs of professional counseling, publishes a quarterly newsletter and distributes literature. It financially supports the mailing of information to various community agencies and medical groups. Many prominent physicians and lay people serve on its advisory board and as officers. It formerly was named the Mark Addison Roe Foundation and was started by

the Jedd Roe family whose son Mark was a victim of AIDS when they lived in Greenwich, Connecticut.

Administered by a board of trustees composed at present of sixteen doctors and laymen, the Foundation is a tax-exempt charitable corporation supported by contributions from the public and from a small number of private philanthropic foundations.

In keeping with its national character, there are trustees on the board from Seattle, Denver, Chicago, Toledo and Philadelphia as well as from New York, New Jersey and Connecticut metropolitan areas. A medical board appointed by the trustees advises them on all medical matters and recommends action on applications for research grants.

The medical board consists of: Marie A. Valdes-Dapena, M.D., Chairman, M. Renate Dische, M.D., J. Bruce Beckwith, M.D., James R. Patrick, M.D., Eli Gold, M.D.

Donations should be mailed to the New York address above or to any local chapter. (Local group information may be included with this brochure.) The Foundation sends an acknowledgement card to the donor and to the family of the person being memorialized.

*Scientific information*

Two major sources of scientific information regarding AIDS are:

*Sudden Death in Infants: Proceedings of the Conference on Causes of Sudden Death in Infants* (1963), National Institute of Child Health and Human Development, Bethesda, MD, 20014.

*Proceedings of the Second International Conference on Causes of Sudden Death in Infants* (1970), University of Washington Press, Seattle, WA 98105.

## MISINFORMATION

A great deal of misleading information and erroneous interpretation about sudden infant death finds its way into print. The most recent items serve as examples:

A newspaper filler that we see every few months states, "suffocation in the crib is the number one killer of infants under one year . . ." This is of course referring to AIDS, and we know now for certain that external suffocation is *not a cause of AIDS* and that babies do not suffocate in bedding, no matter how any one incident might appear at the time.

Many "theories" are among seven completely discounted in the proceedings of the Second International AIDS Conference.

If you read such obvious errors in the press, you can help correct them. Clip the statement or article out of the newspaper or magazine; identify the publication, date of appearance and page number; and mail to the National Foundation for Sudden Infant Death, 1501 Broadway, New York, NY, 10036. It is extremely cruel and confusing for these statements to keep reappearing in print. If you feel qualified, you might write the publication yourself, particularly when articles suggest accidental causes such as the statements printed above. Your note should state that AIDS is *not accidental*, but a definite disease entity which is, at this time, *not preventable*. Refer them to the National Foundation for further information and strongly urge them to print a correcting statement as soon as possible.

## SUDDEN INFANT DEATH SYNDROME—THE EXTENT OF THE PROBLEM IN THE UNITED STATES

**Problem:** The sudden infant death syndrome—the death of an apparently healthy infant which remains unexplained after a complete post mortem.

**Incidence:** Annually, 10,000 thriving, well-cared for infants die as victims of the sudden infant death syndrome. This is three in every 1,000 live births, almost one sixth of all infant mortalities in the United States. In a



large metropolitan area, such as New York City, one baby dies every day. The attached map illustrates the incidence of SIDS, per state, yearly.

**Victim:** SIDS has no regard for race or economics; it strikes babies in every level of our society. However, babies who are black, Indian, Mexican or poor white Americans and whose families live in urban ghettos will more frequently be SIDS victims than babies of the more privileged classes. This is also the case with babies born prematurely or of a low birth weight.

**Psychological trauma:** Virtually every family losing an infant to SIDS feels responsible for the death, due to ignorance of the disease on the part of health professionals and the lay public. Without immediate understanding, the problems of guilt and deep grief are long lasting and destructive to the entire family unit.

**Medicolegal system.** Since SIDS strikes without warning and without a physician in attendance, infant victims are delegated to the medical examiner or coroner for investigation. In many areas of the United States, autopsy is neither mandatory nor is it performed on SIDS victims. Deaths are often certified by the neighborhood funeral director or a coroner unskilled at pediatric pathology. Consequently SIDS is too often dealt with as a criminal case or certified as suffocation (or other unsubstantiated theories) which carry a connotation of negligence on the part of the family. For accurate statistics, new medical data and an ethical standard in dealing with the SIDS family, there must be a concerted effort to revise the entire medico-legal system.

**Medical awareness:** SIDS warrants only perfunctory discussion in medical textbooks and is almost never examined in the classroom. Since the victims are not hospitalized, rarely are they seen in teaching hospitals where the major thrust of modern medical ideas originate. In every community, in private practice or in clinics, physicians and nurses are completely unprepared to deal with the death of a healthy infant or to offer understanding and knowledge to the family.

**Research status:** Although support of research on sudden infant death syndrome is a high priority at the National Institute of Child Health and Human Development, there are few applicants for the available funds. As long as SIDS continues to be nonexistent in medical training, there will be no new impetus for research.

**Model system:** In the entire United States, there is but one community committed to an organized, humane system of dealing with SIDS. In King County, Washington (Seattle), every SIDS is autopsied at a teaching hospital, the family is immediately contacted by the attending pathologist, a visit is made to the family by a public health nurse and a subsequent visit, two weeks later, is again made. With cooperative efforts of the NFIID and government agencies, this system could exist nation-wide and no family would have to face the torment of not knowing why their baby died.

[From the Washington Post, Jan. 26, 1972]  
INQUIRY INTO "SUDDEN INFANT DEATH"  
(By Stuart Auerbach)

It is perhaps the most horrible death of all. At midnight the infant is sleeping easily. By morning—suddenly, without explanation—he is dead.

At least 10,000 children a year—three of every 1,000 babies born in America—die this way. Each morning, as many as 80 American mothers walk to their babies' crib only to find them dead of a disease called sudden infant death syndrome (SIDS) or more simply, crib death.

Medical science does not know what causes SIDS. And since its only symptom is death, they have no way to treat it. There is not even an official classification for the

disease on medical records, and it is often listed by doctors as pneumonia or suffocation.

"It's almost as if there were no such entity as sudden infant death if you search the records and literature—even though thousands of empty cribs, tiny graves and broken hearts bear mute evidence of the total destruction of this killer in our midst," said Saul Goldberg of Baltimore, president of the International Guild for Infant Survival.

He and three other parents of infants who died of SIDS testified yesterday before the Senate Subcommittee on Children and Youth headed by Sen. Walter F. Mondale (D-Minn.), where they pleaded for more federal money for research into the causes of the disease.

Dr. Abraham B. Bergman of the University of Washington in Seattle, head of the National Foundation for Sudden Infant Death, said the government has neglected research into SIDS.

Dr. Merlin K. DuVal, assistant secretary of Health, Education and Welfare for health affairs, said few scientists seek grants to study SIDS.

Of 13 grant requests submitted to the National Institute of Child Health and Human Development over the past nine years, five passed initial review and all were funded—a total of \$700,000. In addition, he said, 43 projects relating to SIDS costing \$1.8 million were funded in 1971.

SIDS occurs more frequently among the poor and the non-white than the affluent and white; it especially hits premature infants and rarely occurs after a baby is one year old. It is the largest cause of death in children between one month and one year.

Most deaths occur between November and February, leading some doctors to believe that changes in temperature trigger the disease.

But most researchers now believe there is no single cause for SIDS. The best current theory, DuVal said, involves a combination of infection and the instability of the nervous system during sleep.

The parents told Mondale's subcommittee that their children's deaths left them guilt-ridden—feeling that perhaps they were somewhat to blame.

"There still is today," said Arthur A. Seigal of Closter, N.J., "doubt in some of the minds (of family and friends) that we were neglectful to our son (who died five years ago) and that if we had been 'better parents' Danny might still be alive."

[From the Washington Post, Jan. 26, 1972]  
THE MYSTERY OF CRIB DEATH

Among the many baffling mysteries of the human body, few remain as persistently unsolvable as crib death. The disease is known medically as sudden infant death syndrome (SIDS). Estimates vary on how many victims die every year; the National Institute of Child Health and Human Development believes between 7,400 to 10,500 occur annually, while two private groups—the National Foundation for Sudden Infant Death and the Guild for Infant Survival—put the figures between 10,000 and 20,000. Whatever the number, little argument exists that SIDS is a definite disease and is the number one cause of death in infants after the first week of life. Mystery is present because it can neither be predicted nor prevented. The infant is usually under six months of age. Typically, the baby is healthy and normal, though sometimes a common cold may be present; he or she has been put to bed routinely but some hours later, with neither a cry or any indication of pain, is found dead.

On Tuesday, the Senate Subcommittee on Children and Youth held one day of hearings on crib death. One expected and much needed result of these hearings is that greater public attention will now be focused on this dangerous and widespread disease. Dr. Abraham

Bergman of Children's Orthopedic Hospital in Seattle and president of the National Foundation for Sudden Infant Death, believes that the urgent problem about SIDS "is ignorance among the medical profession and lay public. In the vast majority of communities, parents who lose children to SIDS are treated as criminals . . . Many medical examiners and coroners are still calling the disease suffocation or a variety of other names." In addition to normal reactions of grief, parents of SIDS victims often suffer guilt or emotional pain unmatched by other diseases. "The toll of broken families around the country for sudden infant death is shocking," said Dr. Bergman.

As a beginning sign of congressional interest in SIDS, the hearings were useful. As Sen. Walter F. Mondale, the subcommittee chairman noted, it was only three years ago that crib death was finally identified and described as a specific disease. What needs to be done now is for NIH to examine its research possibilities, first to discover the causes of SIDS and then to see how it may be prevented. Neither goal will be easy to reach, but with annual deaths ranging in the 10,000 area, the reduction of infant mortality should at least be a major concern of both Congress and the government. No one can deny that SIDS is surely a major concern to tens of thousands of parents.

[From the New York Times, Jan. 26, 1972]

SENATE PANEL TOLD "CRIB DEATH" IS UNSOLVED DESPITE HIGH TOLL

WASHINGTON, January 25.—"Crib death," a mysterious disease that kills seemingly healthy babies while they sleep, claimed at least 10,000 lives last year, but the Federal Government spent only \$46,000 on research and prevention of the disease, a Senate panel was told today.

A series of witnesses at a hearing of the Senate Subcommittee on Children and Youth offered little hope that a cure would be found soon to end the disease—also called Sudden Infant Death Syndrome—or even that causative factors of the disease would be learned.

"Consider the tragedy of the mother who has fed her healthy child as usual and put him to bed," said Senator Walter F. Mondale, chairman of the subcommittee.

"She awakens in the middle of the night, looks in on the baby and finds him dead," the Minnesota Democrat continued. "Can she ever hope to escape the gnawing feeling that she was in some way responsible for that death?"

Medical witnesses said parents had no reason for guilt. Dr. Merlin K. DuVal, Assistant Secretary of Health, Education and Welfare for scientific affairs, said progress in research on the cause of crib death had been slowed because few scientists were interested and because of the nature of the phenomenon itself.

"Its starting point is the death of the infant, which is instantaneous and without warning," Dr. DuVal said. "There is no opportunity to observe the forces and the interrelationships leading up to the baby's death."

He said there apparently were many factors involved and said a current theory involved infection, instability of the nervous system, and sleep.

Dr. DuVal added that the theory was difficult to test because no animals were available for laboratory research.

But Dr. Abraham B. Bergman of Seattle, president of the National Foundation for Sudden Infant Death, reported that Dr. Orville Smith of the University of Washington had discovered that some infant monkeys die during sleep and that autopsy results closely resembled that of infants whose deaths were similar.

Dr. DuVal said research at the National Institute of Child Health and Human Development directed specifically at the cause of

the syndrome is funded at the level of \$46,-258.

He said \$1.8-million was spent on related research.

[From the Washington Post, Dec. 31, 1971]  
NEITHER PREDICTABLE NOR PREVENTABLE—THE  
SUDDEN INFANT DEATH MYSTERY

(By Colman McCarthy)

Perhaps no other death is more difficult for the survivors to bear or the community to understand than the death of an infant. The special kind of funeral—the white coffin the size of a toy box—the mother's grief on carrying a baby inside her for nine months only to lose the child after it is soon outside, the straining of religious faith that says the infant's death is somehow in "God's plan": little of this helps. Yet, about 10,000 to 15,000 babies die of what is called sudden infant death syndrome (SIDS) every year in the U.S. One infant in 350 is a victim. According to HEW figures, 77 infants died of SIDS in the District of Columbia in 1969; 220 died of it in Virginia and 169 in Maryland. Popularly called crib death, SIDS is a major American health problem. Excluding the first week of life when infants die from complications of prematurity, SIDS is the nation's largest cause of death in infants under one year and second only to accidents as the largest cause of death to children under age 15. A news story occasionally appears on the subject and magazine "health columns" refer to it periodically; but the ones who know it best are the parents of the victims. The subject is topical this week because the National Foundation for Sudden Infant Death in New York has announced that Dr. Abraham Bergman is its new president. Bergman is a Seattle pediatrician who for years was a leader in the fight to get flammable clothing off the market.

The mystery of crib death is that it always occurs in sleep. It is neither predictable nor preventable. Parents who give their infant its last feeding of the day—either by bottle or breast—never dream that death is about to strike. The child runs no fever, is not coughing and sounds no louder than usual in the final cry before falling off to sleep. Not many parents even know about SIDS, but, even if they did, obsessive worrying about it would be neurotic. Research groups at the University of Washington and Children's Orthopedic Hospital in Seattle, where Bergman teaches, believe that SIDS babies die from a sudden spasm of the vocal cords that close off the airway during sleep. This is often associated with a viral infection. Yet the viral infection does not cause the death, only causes the vocal cords to be more susceptible to a sudden spasm. Even more mysterious is why a viral infection in a 2- or 3-month baby is different than in a 3- or 4-year-old, or an adult. One researcher has reported that sudden unexplained infant deaths "tend to occur most frequently during cold weather in a sleeping 2- to 4-month-old infant born prematurely or of low birth weight, who at the time had an upper respiratory infection. However, one of the major problems that continues to require solution concerns the means by which these characteristics result in or lead to SIDS."

Two international conferences, in 1963 and 1969, were held on crib death, but research is only beginning. Although Bergman reports that some critics say the federal government is purposely doing nothing in the field, he believes the opposite is true. To date he says the National Institutes of Child Health and Human Development has never turned down a qualified research application on SIDS. "The problem," notes Dr. Gerald LaVeck, the institute's director, "is mostly a lack of trained scientific investigators interested in conducting research into the problem."

While the physical mysteries of crib death are explored, there is no confusion about the

emotional and social pains suffered by the surviving family. "There is a large amount of ignorance in the U.S. medical profession and the lay public about SIDS," says Bergman. "In the majority of communities, parents who lose children to SIDS are treated as criminals. In many places, they can't get autopsies or else must pay themselves. Usually, families must wait many months to hear the results of these autopsies from a medical examiner's or coroner's office. Many examiners and coroners still call the disease 'suffocation' or a variety of other wrong names. This only reinforces the natural guilt that parents feel anyway. Many are subjected to coroner's inquests and questioned by police. This is a national scandal and must cease."

The destructive emotional effects of crib death can last long after the regular mourning period. Tremendous after-guilt may be felt by fathers or mothers who did not "go in to check" when the baby cried during its last night; physically, though, it would have made no difference, because crying does not occur during the baby's agonal period. Other parents suffer excessive guilt at not having taken the infant to the pediatrician, especially if coughing or a fever was present. If they did just visit the doctor and the baby dies, parents wonder "what the doctor missed." Curiously, Bergman reports, "physicians themselves harbor the same doubts, often for many years. A discussion of SIDS at a medical meeting invariably turns into a confessional for physicians who feel the need to stand up and re-live their traumatic experience and be convinced of the known facts."

It is not that easy for parents. Occasionally, divorce follows a crib death, the father refusing to live with the mother who "let a baby die." If a babysitter or relative was home at the time, they may be blamed, with the parents always feeling guilty about going out for the evening. "In the weeks following the death," Bergman says, "there is often marked change of moods. The parents have difficulty concentrating and frequently express hostile feelings toward their closest friends and relatives. Denial of death is common; the mother may continue to draw the baby's bath or prepare his food. Dreams about the dead child are common, as is a fear of being left alone in the house . . . Other common reactions are anger, helplessness and loss of meaning of life. Parents are fearful, particularly about the safety of their surviving children. A fear of 'going insane' often occurs in the first few days and may last for several weeks. Guilt is universal and pervasive. Whether they say so or not, most if not all the parents feel responsible for the death of their babies."

The last point is the most crucial if the surviving parents are to lead normal lives. In medical fact, they are not responsible. Doctors, medical examiners, counselors and friends have the obligation to inform the parents that they did nothing wrong and could not have prevented the death. Guilt or anxiety may never be totally removed, but at least it can be lessened so that life can go on. If families can be consoled after a member dies of cancer, a car crash or other common cause of death, why not with SIDS? Perhaps if the disease is recognized as a disease, and not as a form of suffocation or pneumonia, more can be learned about it. Preventive medicine has conquered other diseases of mystery; it can conquer this one too.

[From the CONGRESSIONAL RECORD, Jan. 19, 1970]

#### "CRIB" DEATH—THE MYSTERIOUS KILLER

MR. TYDINGS. Mr. President, on December 2, 1969, Mr. Saul Goldberg, president of the International Guild for Infant Survival, Inc., of Baltimore, Md., presented some very important testimony before the Senate Ap-

propriations Subcommittee on Labor, Health, Education, and Welfare. The guild, which I have the privilege of serving as a member of the honorary advisory board, is a nonprofit charitable and educational organization comprised of citizens across America who are deeply concerned with the tragedy of thousands of infants who died each year soon after birth.

In his presentation before the Appropriations Committee, Mr. Goldberg discussed a little known and little understood form of infant mortality called "crib" death. It takes the lives of 15,000 to 25,000 infants a year; yet we understand nothing of its cause or its prevention. In a Nation that prides itself on its medical advancement and scientific sophistication, this situation is nothing short of criminal. As Mr. Goldberg so eloquently points out, it is clearly time we began devoting the attention and the research resources to this mysterious killer that it demands.

To all who are interested in this critical problem, I strongly recommend Mr. Goldberg's excellent statement. Therefore, I ask unanimous consent that his remarks be printed in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

#### STATEMENT BY SAUL GOLDBERG

I have been asked to be brief in my testimony. I wish I were not here at all for the purpose I must be. I come before this distinguished subcommittee as president of The International Guild for Infant Survival, Inc., a non-profit charitable and educational organization of parents and other citizens throughout the United States tragically bereaved or deeply concerned by the horrible loss of helpless infants who are not here to speak for themselves. I speak to you now in their name: the tens and hundreds of thousands—perhaps millions—of innocent babies who have died suddenly and unexpectedly in years past. I speak to you also in the name of the 15,000-25,000 normal, healthy babies in our 50 states who are dying in this same bizarre manner this year of 1969. More importantly, I speak for the untold thousands and hundreds of thousands of the babies in future generations who face this same terrible fate at the very beginning of life.

These precious babies of ours are with us no longer. There is no "poster child" for us to bring here to remind you of this tragic problem. There is no handicapped youngster to accompany me to evoke your sympathy and help. Their passing comes so quickly and silently, these infants have little time to become known outside their own family and the general public is thus unaware that this dilemma even exists. Yet, for every victim, death is final. And all that remain are an empty crib . . . a tiny grave . . . and broken hearts.

Who will speak for these departed children? Who will come forward to plead for the lives of future generations? A group of stricken parents and some who have been spared but feel a deep compassion, a deep empathy, have banded together as The International Guild for Infant Survival to serve as the voice of all these dear children, to provide comfort and information to bereaved families, to give encouragement and support to scientific research activities in this field, and to bring the seriousness and scope of this major health problem to the widest public attention.

We cannot keep silent and watch more children die in vain without lifting a finger. We cannot ignore what is happening before our very eyes, seeing these loveable babies slip through our hearts and homes. We cannot stick our heads in the sand in the mistaken belief that somehow all this tragedy will disappear. And America can no longer afford to sit idly by while millions of hours of manpower and talent which could be put



to peaceful and productive purposes are buried forever.

Our growing group of Americans represents an important point of view in many parts of this great country which I would like to respectfully bring to your attention at this time.

1. I would like to inform you, first of all, of the actual existence of this mysterious phenomenon which concerns our most precious asset—our babies and their very lives. It is known only as sudden infant death, or sudden death syndrome, or "crib death." So little is known about it, there is not even a medical or scientific name to describe it.

2. Sudden infant death kills infants from 10 days to 2 years old, most being between 2-3 weeks and 6 months of age, without any warning and for no apparent reason.

3. From all reports given by parents, pediatricians, and medical examiners, these babies were perfectly normal and healthy. Some had been given a medical examination a few days before. Some had fathers who were physicians themselves—at home at the time—and they could do nothing. Yet the same set of circumstances is repeated over and over again. A mother puts her young child to sleep or to nap and, when she goes to check on the child later on, the baby is found dead.

4. This distressing mystery is all the more puzzling because it persists in an era when babies have been made more safe from fatal diseases today than ever before. Years ago, families were purposely large because it was expected that one or two babies would die in infancy. The old scourges like diphtheria, whooping cough, typhoid fever, polio, and others now have all been eliminated. Yet our infant mortality rate remains too high. It is the very success of modern medicine today that has ironically exposed this serious sudden infant death problem—for which there is still no known cause, no prevention, no treatment, no cure.

5. Sudden infant death provokes serious feelings of guilt, self-recrimination, and inadequacy. After the first few moments of stunned disbelief, the stricken parents usually start blaming themselves and wondering what they did wrong. How else can you explain the loss of such a beautiful little baby? The emotional impact of such a traumatic experience can have lasting effects: disrupting families, unbalancing other children, wrecking marriages, and fostering personal chaos to such an extent that some will dare not think or speak about it for years. Others think this tragedy is something of a personal stigma to hide from and forget. Some place the guilt on an innocent third party, such as the doctor, the baby-sitter, or a housekeeper.

6. Yet, there is no foundation in fact for these feelings of guilt, frustration, and failure. Upon medical investigation and detailed autopsy, the vast majority of reports in these cases reveal no explanation to account for death. Sometimes there may be some evidence of a slight infection or a cold in the family, but nothing to medically cause death itself. Frequently, there is no clue at all. Everything is negative and normal.

7. Experts and investigators cannot tell us how extensive this problem actually is. The most conservative estimates start at 10,000 deaths each year in the United States alone. More realistic estimates range between 15,000-25,000 deaths a year, while some refer to incidences as high as 35,000 annually. This then represents from 10% to 25% of all infant mortality after the first few days following birth. One reason it is not known how many sudden infant deaths there are is because most states do not permit the frank term, "death unexplained" or "sudden unexplained infant death", to officially appear on certificates as the cause of death, even though most high medical authorities recognize this dilemma for the tragedies they are. To place these figures in better perspective,

this frequency of sudden infant death is almost as high each year as the total number of Americans killed in Vietnam over several years!

8. Sudden infant death can strike any home, any time, any place. It is no respecter of race, color, religion, creed, nationality, national origin, geography or socio-economic status. It does strike all kinds of families from every background—from the poor ghetto family to that of your colleague from Connecticut Senator Ribicoff.

9. How significant is this sudden infant death problem? The National Institute of Child Health and Human Development, specifically involved with this problem, helped to support only the Second International Conference on sudden infant death, bringing together over 40 medical experts and concerned scientists in infant mortality earlier this year. From this important meeting came the news that sudden infant death is the leading cause of death among all health problems of young children. In some communities, it was mentioned, sudden infant death even surpassed accidents as the number one cause of death among all children.

10. So challenging and disturbing is this mystery that some medical men have taken it upon themselves to do some investigation on their own without significant progress thus far. Several theories have been offered, but none as yet withstand the test of careful scrutiny. However, it now appears certain that suffocation and neglect are not the answers, nor did anyone with the baby at the time do anything to contribute to his death. More recognized experts have become concerned in recent months and have spoken of their theories and research ideas, hoping for the financial resources to pursue their interest in saving these young lives. Regrettably, the National Institute of Child Health and Human Development specifically, and the Department of Health, Education, and Welfare generally, have such comprehensive responsibilities and such limited budgets that up until now there has been too little incentive to encourage these efforts, interests, and plans.

11. In summary, therefore, sudden infant death is a leading killer of our most precious asset—our children. Yet so little is known about it, there is no scientific name, no exact accounting of the number of these deaths, no known cause or prevention, let alone a cure, and this tragedy contributes significantly to our high infant mortality rate. Knowledgeable medical men and health officials recognize these losses of young life as one of the most distressing and puzzling problems in the entire field of medical practice—and want to devote their time and effort to this kind of research in the fact of a limited research budget for this specific dilemma.

12. It seems apparent to us that there is a definite need for this distinguished panel to seriously consider an increased research budget to find out all we can about what sudden infant death really is once and for all. It seems vital to us that larger research appropriations are required through the National Institute of Child Health and Human Development and the Department of Health, Education, and Welfare commensurate with the magnitude and scope of these deaths in today's infant mortality picture and the extent of medical ignorance to this day. This is a major health problem which is concerning a growing number of citizens and professional men—that we respectfully suggest deserves your fullest attention and consideration.

The President has stated that one of this administration's major concerns is the first 5 years of life. His predecessor was equally concerned with our high infant mortality rate. The Vice President has generously given us and the lives of our dear babies his personal support, as has our own Maryland

Congressional delegation led by Senator Tydings. Senator Ribicoff's family knows of this tragic experience first-hand.

No one can say who will be touched in the weeks and months ahead. We do know there will unfortunately be many, far too many. How much longer will our babies die so tragically and so unnecessarily? How much do we really value life itself? Today, you have a golden opportunity given to very few . . . the opportunity to save thousands of lives every year! Speaking for all our children, you hold in your hands and minds the power to speed the day when no more happy, healthy, precious babies—so full of life—face this terrible fate of sudden death.

For those who may question personal involvement, permit me to quote from John Donne's famous paragraph (Devotions, XVII): "No man is an island, entire of itself. Every man is a piece of the Continent, a part of the main. . . . Any man's death diminishes me, because I am involved in Mankind. And therefore never send to know for whom the bell tolls, it tolls for thee."

For those who see the task too difficult, allow me to recall the words of Senator Robert Kennedy: "Some men see things as they are and say, Why? I dream things that never were and say, Why not?"

Our dear babies can be given life. For as another of our great Presidents once said: ". . . here on earth, God's work must surely be our own."

#### ULMS AND AWACS: IS THERE A SOUND RATIONALE?

Mr. PROXMIRE. Mr. President, the new defense budget presented to Congress earlier this week by the administration includes large funding requests for a number of major strategic weapon systems. Some of these requests call for a further step-up on programs to which sizable commitments have already been made. Examples are the ABM—which remains in limbo at a cost of \$1.5 billion pending a SALT agreement which would allow a cutback—and the B-1 bomber—up to \$440 million in the third year of its prototype development program. Also included, however, are major step-ups on two other strategic programs which have been funded in the past at a relatively low research and development effort. I refer to the undersea long-range missile system—ULMS—which is budgeted to rise from \$103 million to \$942 million and the airborne warning and control system—AWACS—which is slated for a jump from \$140 to \$470 million.

#### YEAR OF DECISION

This budget session in Congress will be a year of decision for both ULMS and AWACS. The new budget requests involve production funds for the first time, and history has shown us the great difficulty in cutting back later on programs for which production funds have once been authorized. The point is well taken in an editorial of the Washington Post. Mr. President, I ask unanimous consent that a copy of this editorial be printed at this point in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

[From the Washington Post, Jan. 28, 1972]

#### FUNDS FOR STRATEGIC WEAPONS SYSTEMS

Q: Here, when you talk procurement, you're talking R&D procurement as opposed to deployment procurement?

A: Yes.

Q: No deployment decision?

A: No deployment decision.

Q: Same as on AWACS [airborne warning and control system], no deployment?

A: No deployment.

Q: Does this mean you're going to build one of these things?

A: It is \$942 million. The answer is that you do not move this fast unless you intend to build submarines and new missiles. . . .

The exchange between Assistant Secretary of Defense Robert C. Moot and newsmen who were being briefed on the fiscal 1973 defense budget at the Pentagon the other day casts a few flickering rays of light on a murky—yet absolutely crucial—aspect of that budget: the manner in which it may create commitments to vast and costly new weapons systems well in advance of any formal decision to proceed with them. In fact, these are commitments of time, money and technological skill that tend to render subsequent decisions superfluous, representing an investment of resources that is in itself a decision and generally an irreversible one. What makes this so important in relation to the fiscal '73 defense budget is the fact that Mr. Nixon is requesting a great leap forward in several strategic systems all at once, and their cost for the coming fiscal year—a few billion dollars—high as it is, will be as nothing to their costs if and when real deployment occurs.

In dealing with this particular aspect of the defense budget, then, it seems to us pertinent to wonder where the money for these projects is taking us, as distinct from arguing about where it has (or will) come from. That the so-called Vietnam peace dividend would prove illusory has long been known: dwindling expenditures for the Vietnam war have been, in large part, absorbed by congressionally approved pay increases for the military and these and related maintenance and operations costs, constituting as they do the bulk of military outlays, are best discussed in the context of other policy choices—specifically, those dealing with the desirability of an all-volunteer army and with the size and deployment of our general purpose forces as a whole. The "hardware" decisions are something else again.

Of the proposed budgetary increases for nuclear weapons systems, the most striking and significant is that which would add about \$1 billion in new obligatory authority for work on the undersea long range missile system—or ULMS. This ICBM-bearing nuclear-powered submarine has almost twice the range of the Polaris/Poseidon system that is being deployed now, and an increased missile-bearing capacity. Although no one supposes that the roughly \$1 billion the President is requesting in spending authority for this project will in fact be spent in the coming fiscal year, neither can anyone suppose that Mr. Nixon is being tentative or restrained as regards a commitment to it—he is requesting authority for a decisive investment.

The "crash program" aspect of the ULMS request has provoked surprise and, in turn, speculation as to why the President has chosen to accelerate this project so dramatically at this time. One answer that has a degree of plausibility is that the President's hefty request for funds for this specific system goes a certain way to meeting a number of separate challenges at once. It could, after all, be regarded as a signal to the Soviets who are balking on bringing submarine-based missiles under the restrictions of a SALT agreement that, falling a mutually accepted limitation on these systems, the United States means to proceed apace with their development. It offers—owing to the sheer and somewhat illusory size of the authorization request—some assurances to those increasingly alarmed critics who believe Mr. Nixon has let our defenses slip in the face

of the Soviet buildup. And, on the other side, it could present some of the President's Democratic/liberal defense critics with a dilemma, since it has long been an article of faith among many of them that U.S. offensive nuclear weaponry should be phased out from a three-part system (bombers, land- and sea-based missiles) to one primarily composed of an underwater system such as that Mr. Nixon is moving on now.

Whether all (or any) of this can be expected to have the desired effect on the Soviets and/or on the critics in Congress seems at least doubtful. In any event, via the SALT negotiations and forthcoming action on the Hill, they will make their own responses. Our own reaction is that the pending Defense posture statement by Secretary Laird and the administration testimony to follow will have to go a long way beyond anything said in connection with the budget presentation to make a compelling case for this kind of commitment to proceed with ULMS now. Perhaps such a case can be made, but two particular elements in the budget presentation cast serious question on the impetus for this investment. One is that the administration seems to be working on a "force matching" principle, rather than a principle of need. That is to say, so far it has argued the urgency of our keeping equal to or more precisely ahead of a prospective enemy in the number and design of such offensive weapons—it has not demonstrated that progress in Soviet antisubmarine warfare techniques is anywhere near to presenting a threat to our invulnerable and lethal Polaris/Poseidon force.

The second disturbing aspect of the presentation is that the ULMS acceleration does not appear to reflect a trend to emphasize our relatively secure sea-based deterrent so much as it seems to reflect a trend to move forward in a big way on all systems, to move across the board at a stepped-up rate of modernization and new investment. There is \$444 million for the controversial B-1 strategic bomber meant to replace the B-52. There is close to half a billion dollars for AWACS, the rather dubious air defense against the Soviets' relatively small and not very modern long range strategic bomber force. Safeguard ABM will absorb around \$1.5 billion. Conventional systems, including some highly costly tactical aircraft are also scheduled for big increases. There is, in short, evidence that the administration has not so much made hard and realistic choices as simply moved on a broad front to inject funds into programs that may or may not be wise or effective, but which promise without exception to be costly.

In the past couple of years Senator Proxmire and some of his colleagues have been giving the Pentagon budget the kind of scrutiny it demands. And Senator Stennis' Armed Forces Committee has been doing invaluable work of its own—looking into the genesis of contractual commitments to questionable programs, obliging the Pentagon to justify its requests and its performance under increasingly tough standards, cutting back authorizations it deems half-baked or imprudent. The Stennis committee will get first crack at the 1973 requests. We have great confidence that the committee, not exactly a hotbed of "radicals," will—whatever its final disposition of these requests—take a very hard look at the ULMS, AWACS and other big-step programs in this budget, especially in view of its own appreciation of the manner in which these "undecided" decisions have a way of getting made somewhere along the line in the R&D process. Conceivably, the case is there for such an across-the-board move on a variety of weapons systems that will commit this country to the expenditure of unprecedented billions of dollars in the next decade. That case has yet to be made—and it is far from obvious.

Mr. PROXMIRE. Mr. President, as the

Post editorial indicates, the administration and the Defense Department owe the Congress a sound justification for their decision to move out on the ULMS and AWACS programs. Frankly, I have grave doubts whether such a justification exists. I intend to make a detailed study of the ULMS and AWACS programs in the months ahead before coming to any detailed conclusions. But I would like to flag at this point a number of factors which warrant in-depth scrutiny, in the hope that my colleagues will join with me in giving them the examination which they need.

#### ULMS

I have long supported the need for increased reliance on sea-based strategic systems. The reasons for such reliance have seemed self-evident. Sea-based systems do not suffer from the growing vulnerability which both land-based missiles and bombers have experienced. In addition, they pose no first strike threat to any potential adversary, thus providing an element of stability in the precarious nuclear balance.

Accordingly, I have been favorably disposed to the ULMS program in the past, regarding it as a study and design effort directed toward finding an eventual successor to our Polaris and Poseidon submarines. There are several things I find disturbing, however, about the crash program for ULMS development which the administration has just revealed.

For one thing, it is not accompanied by any cutback in other programs, all of which continue full steam ahead. It is therefore difficult to see in the ULMS program a real indication that greater reliance will be placed on our sea-based deterrent any time in the near future.

#### DANGEROUS TIMETABLE

I am also troubled by the timetable implied in the extremely high funding level which the administration has requested. Last year long-range Navy planning was oriented to an initial operating capability—IOC—date for ULMS of 1984, with enough flexibility in its funding plans to permit an acceleration to a 1981 IOC. The present schedule, on the other hand, points squarely to a 1978 deployment. What this means is that a 12-year development program has suddenly been condensed to roughly 6 years. Under this revised schedule, ULMS, which has not yet entered engineering development, would be deployed a year before the B-1 bomber, which is about to enter its third year of engineering development.

This revised schedule insures that there would be considerable concurrency between the development and production stages of work on ULMS, the same kind of concurrency which has led to massive cost overruns in the F-111, C-5, and F-14 programs. A similar experience with ULMS would have devastating consequences, since costs per submarine are already estimated at a cool \$1 billion, with total program costs expected to exceed the costs of the other three programs combined.

In fact, funding for long-lead-production items—some \$394.5 million—are already included in this year's budget. I recognize that there are substantial differences between the normal develop-



ment and production schedules for aircraft and submarine programs, but I am also convinced that the present tight schedule for ULMS foreshadows major problems ahead.

#### POLARIS-POSEIDON SECURE

And I see no need for anything approaching this tight a schedule. There are no breakthroughs in antisubmarine warfare technology now on the horizon which threaten the survivability of our Polaris and Poseidon boats. And these boats certainly have enough nuclear firepower for the foreseeable future, since the multiple-warhead Poseidon program was itself designed to penetrate a thick Soviet ABM system, the kind of system which it now appears will never be built.

Moreover, we still have great advantages over the Soviet Union in the quality of our sea-based strategic deterrent, notwithstanding the fact that the Soviets have pulled even in actual numbers of submarines. The Soviets have yet to deploy a sea-based missile equal in range to the Poseidon and they have not yet even begun testing a sea-based missile with an MRV or MIRV capability such as the Poseidon has.

Under these circumstances, I am hard pressed to find justification for any acceleration of the ULMS program over the schedule planned last year. And if we do move forward more quickly—and I am not advocating that—many believe it advisable to concentrate on a new missile system rather than a submarine itself. They argue that an expanded range missile alone would tremendously expand the ocean area in which our submarines could effectively operate and in which the Soviets would have to find them.

#### ULMS COULD BE OBSOLETE

There is one other thing to consider in deciding to move ahead with a new boat, a factor I have not yet mentioned but which might in the long run be more important than all the other considerations combined. We do not know yet what improvements in antisubmarine warfare technology the 1980's will produce. Under the circumstances, it is difficult to design a submarine to counter those as yet unknown improvements. We do know, however, that the Navy's plans for ULMS call for a huge submarine—much bigger than the Polaris—and that many kinds of ASW techniques on which we and the Soviets are working could be much more effective against large rather than small targets for detection.

Accordingly, the Navy's proposed ULMS design should be subjected to a searching evaluation before any go-ahead is given to it. The ULMS is touted by the Navy as the backbone of our strategic nuclear deterrent from the time it is deployed until well past the year 2000. Yet there is a grave danger that breakthroughs in ASW technology could render the present design obsolete shortly after it has been deployed.

These are just some of the factors to be considered in scrutinizing the administration's ULMS request. And it is imperative that such scrutiny begin at once. For in addition to the \$942 million request for ULMS in the fiscal 1973 budget, Congress will also have to act on the \$35 million request in the fiscal 1972 sup-

plemental. I hope that before acting on that portion of the supplemental request the Armed Services Committee will conduct a penetrating examination of the whole ULMS program. Unless such an examination is made and the merits of the overall program debated, we may find ourselves locked in to portions of that program without even realizing it has happened.

#### AWACS

AWACS is only a small part of the modernized bomber defense system which the Air Force and the Army have been advocating. Other components are a new over-the-horizon radar system—OTH-B—a new interceptor, and SAM-D. The total costs of the system are presently estimated at roughly \$5 billion, but this is clearly a too optimistic evidence. One indication of its optimism is the fact that its interceptor component is currently budgeted at a fraction of the actual cost of the two interceptor candidates—the F-14B and the F-15.

#### IS BOMBER DEFENSE STILL NEEDED?

I have long questioned the need for a new bomber defense system. The long-range Soviet bomber force is comprised of only 150 planes, all older than our own B-52's of which we have almost three times as many. Even more important, the whole concept of bomber defense seems irrelevant in the absence of a large-scale ABM system. What sense does it make to defend against enemy bombers when enemy missiles can still get through, and when any lives saved by defending against bombers could be lost again by a small, inexpensive buildup in the enemy missile force?

Other people have raised similar doubts about the bomber defense concept, and they have been reflected in the actions taken by the last three administrations. Our existing bomber defense system was erected in the 1950's when Soviet bombers constituted the sole weapon in their nuclear arsenal, and it reached its peak in 1961. Since that time fully 60 percent of the existing system has been gradually dismantled, in tacit recognition that it did not justify its large operating costs. As a result, annual bomber defense operating costs have been reduced from a level of \$2.5 billion to under \$1 billion, if adjustments for inflation are considered.

Congressional approval of the new AWACS request could reverse this trend. The first three production aircraft could be the opening wedge in a \$5 to \$10 billion expenditure program which would contribute nothing to our actual security.

The administration is contending, of course, that these three production aircraft would not commit us to eventual deployment of AWACS, that they would be used primarily for test purposes. And there is another article in the Washington Post which indicates that the administration is revising downward its estimates of long-term bomber defense requirements. Mr. President, I ask unanimous consent that this article be printed in the RECORD at this point.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the Washington Post, Jan. 28, 1972]  
UNITED STATES TO LIMIT ANTIBOMBER AIR DEFENSES

(By Michael Getler)

The Nixon administration has come to the conclusion that spending billions of dollars to rebuild U.S. air defenses against attack by an aging and declining force of Soviet bombers is a losing proposition.

Despite a proposed election-year increase in overall military spending—including a rise in one major new bomber defense project—a number of high-ranking officials say privately that a longer-range decision has been made not to pour additional billions into the extensive new shield against bomber attack that the Air Force—and to a lesser extent the Army—have been pressing for.

Behind the decision lie these factors:

Acceptance of the logic expressed in the mid-1960s by former Defense Secretary Robert S. McNamara that it was pointless to defend heavily against Moscow's relatively small fleet of 150 heavy bombers when it was impossible to defend against thousands of Soviet missiles that could reach American cities in 15 to 30 minutes.

An assessment that the Soviets clearly are continuing to concentrate on ocean-spanning missiles and missile-carrying submarines—rather than long-range bombers—as the cornerstone of their arsenal.

An assessment that the threat posed by the existing long-range Soviet bomber force continues to shrink and that a new medium-range Soviet bomber now being tested has "almost no capability against the United States, even one-way."

"The Soviet bomber threat just isn't there," says one top official.

Another senior defense specialist says that the way the Russians train and the intensity of that training is another telltale sign of the role of their heavy bomber force. "They are doing less training now. Their whole strategic aviation picture is shrinking."

The older squadrons of medium bombers are assigned to targets in Europe or China, in the view of these officials.

#### RADAR NETS BUILT

Fearing a huge Soviet bomber buildup in the late 1950s, the United States built hundreds of radars along the U.S. coasts and across Canada. Thousands of Nike antibomber missiles were installed around the country, and the Air Force built up a force of 1,500 interceptor planes.

Since the early 1960s, however, those defenses have declined steadily to about a third of their former level—a de facto recognition by successive U.S. administrations that the ICBM had made much of the anti-bomber defense obsolete.

Now, the Air Force, backed by some strong supporters in Congress, wants to modernize those defenses. The ingredients include a \$2.7 billion fleet of 42 Airborne Warning and Control System (AWACS) planes stuffed with radars and computers and able to keep watch over the enemy bomber approach routes without being vulnerable to missile attack.

The Air Force also wants to replace its aging interceptor squadrons with more modern jets, and the Army wants to replace at least some of its old Nike missiles with a new and extremely costly weapon known as SAM D.

The total cost of this has been estimated at above \$5 billion by Pentagon officials.

The Fiscal 1973 defense budget just sent to Capitol Hill does include \$470 million for the AWACS project, an increase of some \$330 million over last year. This will buy the first three planes for testing, but officials stress that this does not represent a decision to proceed to build a fleet of 42 planes.

#### CHALLENGE INDICATED

While high-level sources will say no more than that there has been a decision not to make any heavy, new longrange investments

in bomber defense, they indicate that the AWACS project will face a strong challenge within the Nixon administration next year.

These sources hint that only a relatively small number of these planes will actually be built, to be used primarily as airborne control centers for tactical warfare, or perhaps to fill a few gaps in ground-based early-warning radars.

Similarly, while the Army intends to field its SAM-D missile overseas to help shoot down enemy planes over a European battlefield, the decision to deploy the missile for bomber defense in this country is being held in abeyance. As for new interceptors for the Air Force, officials indicate the most likely prospect is to use existing F-4 Phantom jet fighters, or perhaps divert a small number of the newer F-15 fighter, which is just now going into production.

The future U.S. air defense posture is described broadly by one official as sort of a "Coast Guard of the air." This means the United States will continue to modernize some parts of its ground-based radar network—including the addition of new over-the-horizon type radars that can look beyond the curvature of the earth and see targets hundreds of miles away.

The United States these officials point out, wants to maintain its ability to know when unidentified planes of any kind are entering U.S. airspace, and wants to maintain some capability to go up and take a look, or even to shoot down these planes if necessary.

But the total defenses now envisioned are far short of the forces that the Air Force's Air Defense Command is pushing for.

#### SPECIFIC QUESTIONS

Mr. PROXMIRE. Mr. President, even if this story about administration plans is true, it raises more questions than it answers. Why is the Nixon administration planning a full-scale review of AWACS next year rather than this year, especially since close to \$1 billion will have been committed to the project by that time, including almost a half billion dollars in this year alone? What sense does it make to buy a limited number of AWACS for use in tactical warfare, where their slow speed and easy detectability make it unlikely that they will survive the initial moments of an engagement and thus be able to direct that tactical air battle in the manner the Air Force envisions?

These questions are made the more urgent by the historical tendency of programs, once approved, to expand well beyond their initial planned proportions. They demand serious scrutiny in the days ahead.

#### THE CONTINUING TRAGEDY OF ULSTER

Mr. RIBICOFF. Mr. President, the tragic killings yesterday in Londonderry of 13 persons and the wounding of another 16 is another dark blot on Great Britain's sorry record in Northern Ireland. This bloody incident makes it even more obvious that the current British policies in Northern Ireland have failed, and that their continuation can only prolong the agony of Ulster. I hope that any official inquiry into this tragedy will go beyond the terrible events of January 31 and go to the root causes of the mounting violence in Northern Ireland.

Last October, when I introduced Senate Resolution 180 with the cosponsorship of Senator KENNEDY, the loudest

criticism was aimed at the provision calling for "withdrawal of all British forces from Northern Ireland and the institution of law enforcement and criminal justice under local control acceptable to all parties."

But the presence of these troops in increasing numbers is a crucial element. Had British paratroopers and armored cars, according to the Washington Post, not "stormed into the Catholic Bogside ghetto in pursuit of demonstrators at a banned protest march" this slaughter would not have taken place. From the first newspaper reports of the killings, including an eyewitness account by a Manchester Guardian correspondent, it appears that British troops deliberately fired into the crowd and at people fleeing the scene. The British army commander's allegations that his men came under a sustained attack by snipers and grenade throwers are refuted by the very fact that only a single British trooper was reported wounded.

What is perfectly clear, however, is that more of the same repressive policies, such as internment without trial and brutal interrogation, and more British troops are not solutions for the festering of problems of Northern Ireland. It has been said that the British genius for policies seems to disappear when it comes to Ireland. This was tragically evident yesterday.

I realize that there are no quick and easy solutions here, and I can sympathize with Prime Minister Heath's dilemma—but I must sympathize more with the families of the dead and wounded. Unless new, more enlightened and forward looking policies are followed, the only future for Northern Ireland is continued violence, repression, and hate. A system built upon the deliberate subjugation of an oppressed minority cannot, and must not, endure. It is no longer being tolerated by Catholic men and women in Northern Ireland, and it must be condemned by decent men everywhere.

The steps outlined in Senate Resolution 180 which would be urged by our Government upon Britain are more applicable and more necessary today than ever before. They are:

First. Termination of the current internment policy and the simultaneous release of all persons detained thereunder.

Second. Full respect for the civil rights of all the people of Northern Ireland, and the termination of all political, social, economic, and religious discrimination.

Third. Implementation of the reforms promised by the Government of the United Kingdom since 1968, including reforms in the fields of law enforcement, housing, employment, and voting rights.

Fourth. Dissolution of the Parliament of Northern Ireland.

Fifth. Withdrawal of all British forces from Northern Ireland and the institution of law enforcement and criminal justice under local control acceptable to all parties.

Sixth. Convening of all interested parties for the purpose of accomplishing the unification of Ireland.

Unless actions along these lines are

taken soon, yesterday's tragic events will be repeated, and all those who chose to avert their eyes, and consciences, from what is going on in Northern Ireland will share the blame.

I ask unanimous consent that this morning's Washington Post and New York Times accounts of the Londonderry killings be printed in the RECORD.

There being no objection, the articles were ordered to be printed in the RECORD, as follows:

[From the Washington Post, Jan. 31, 1972]

#### ARMY RAIDS ULSTER RALLY; 13 SHOT DEAD

LONDONDERRY, NORTHERN IRELAND, January 30.—Thirteen Irishmen were killed today as British troops stormed into the Catholic Bogside ghetto in pursuit of demonstrators at a banned protest march.

Sixteen demonstrators, including two women, were wounded and about 50 were reported arrested.

Irish civil rights leaders accused the British troops of mass murder, and a spokesman for the outlawed Irish Republican Army said British soldiers would be shot in reprisal for the victims of the street fighting.

It was the bloodiest incident involving British troops since they were sent to Northern Ireland in August, 1969, to try to restore order between warring Protestants and Roman Catholics.

An army statement issued tonight said the British troops had opened fire only at identified targets and only after more than 200 shots had been fired in their general direction. The British casualty toll was one soldier wounded, according to the army.

Northern Ireland Prime Minister Brian Faulkner blamed the IRA and the organizers of the rally for the shooting. Public demonstrations have been banned in Northern Ireland but a peaceful one was held yesterday despite the ban.

Maj. Gen. Robert Ford, commander of British land forces in Northern Ireland, said those who died as his men stormed into the Bogside "might not have been killed by our troops."

In a television interview, Ford said there was "absolutely no doubt" that the paratroopers opened up only after they had come under fire.

Controversy over who started shooting first erupted shortly after the half-hour gun-battle. It broke out near the William Street Guildhall Square on the edge of Londonderry's old city as demonstrators marched to the site of a rally where Bernadette Devlin, 24-year-old civil rights leader and member of parliament was to speak.

The army said between 15,000 and 20,000 persons—"the majority perfectly orderly"—had gathered for the rally. Other reports estimated that the crowd totalled about 3,000.

The demonstration was staged to protest Britain's internment without trial of more than 700 security suspects, most of them suspected members of the IRA.

The army said paratroopers moved into the crowd to snatch youngsters who were hurling rocks and bottles. The soldiers came under guerrilla sniper fire from a high apartment block, officers reported, and the exchanges began.

"At no time did any of our units open fire on the British army prior to the army's opening fire," countered a leader of the Irish Republican Army.

"The British army murdered innocent civilians in Derry today," he added. "We leave the world to judge who are the real terrorists."

The extremist provisional wing of the IRA swore to avenge the deaths.

Witnesses said most victims were shot during gunfire near the scene of the rally, in Londonderry's Roman Catholic Bogside



district—long a hotbed of Catholic activism.

Ivan Cooper, a Londonderry Social Democratic and Labor Party member of the Northern Ireland provincial parliament who was among those to come under fire in the Bogside area, declared: "I was shot at even though I had raised a white flag as I tried to help a wounded man."

"I could see innocent people being shot down," he said. "I saw the shots coming from the army."

Another eyewitness, party member William O'Connell, said he saw a detachment of three armored personnel carriers drive up Rossville Street.

"Paratroopers jumped out and started to fire at the people, including people lying on the ground. It was completely indiscriminate," he declared.

"After a while they shouted 'Move and you're dead' and everybody who had been running away when the paratroopers arrived stopped running," O'Connell said.

"Troops told the people to come towards them and arrested them."

Miss Devlin and another speaker were standing on a truck being used as a speaker's platform when the first shots rang out.

Civil rights leader Finbar O'Kane said Miss Devlin had just picked up the microphone and started to speak when a bullet struck a wall opposite.

"People didn't realize what it was at first. But more shooting followed and everybody hit the ground. The shooting seemed to stop after a bit and everybody got up on all fours and started to crawl away. But it started again," O'Kane said.

"I've never seen anything like it. Everybody was trying to crawl away, hitting walls and stumbling . . ."

Manchester Guardian correspondent Simon Winchester said the first outbreak of violence occurred after crowds going to the rally were blocked by barricades. The crowds stoned the British troops who retaliated with tear gas and spray from a water cannon.

The struggle continued to escalate with troops using rubber bullets.

The Guardian correspondent said four or five British armored vehicles raced into the area and troops piled out. Some made arrests but about 20 opened fire with their rifles. About 10 minutes earlier, he said, one shot had been fired, presumably by a sniper, but it had been ignored.

William Cardinal Conway, Roman Catholic primate of all Ireland, said he was "deeply shocked at the news of the awful slaughter in Derry this afternoon."

"An impartial and independent public inquiry is immediately called for and I have telegraphed the British prime minister to this effect," Cardinal Conway said in a statement.

But Miss Devlin charged that an official inquiry would only come up with a whitewash. "This is mass murder by the British army," she added.

Catholics charged that a priest was arrested by paratroops as he gave the last rites to a dying man.

[From the New York Times, Jan. 31, 1972]

**BRITISH SOLDIERS KILL 13 AS RIOTING ERUPTS IN ULSTER—DEATHS COME AS CATHOLICS DEFEY BAN ON LONDONDERRY MARCH**

**BELFAST, NORTHERN IRELAND, January 30.**—At least 13 persons were shot dead by British troops in Londonderry today when rioting broke out after a civil rights march held in defiance of a Government ban.

It was the worst day of violence since the disorders first broke out in Ulster three years ago, and it brought the total number of dead to 230. Already this year 25 have died.

The army said that the dead were snipers who had fired at troops trying to break up rock-throwing mobs with nausea gas and rubber bullets. But local people contended

that the soldiers had panicked and fired wildly.

#### I.R.A. VOWS VENGEANCE

At the city hospital a spokesman said that the dead men were all in their twenties. Fifteen civilians were also taken to the hospital with gunshot wounds, two of them women. Three soldiers were reported injured, one with gunshot wounds.

A spokesman for the militant Provisional wing of the Irish Republican Army said that all guns had been cleared from the route of the march and that no shots had been fired until the troops opened fire. "The deaths will be avenged," he said.

The British Army chief on the spot, Maj. Gen. Robert Ford, maintained that the soldiers fired only at snipers and grenade-throwers.

A member of the Northern Ireland Parliament, Ivan Cooper, said that the meeting had just begun and Bernadette Devlin, the fiery civil rights leader, was speaking when the shots rang out.

"The speakers threw themselves to the platform and I shouted for people to keep down," he said. "I could see the army systematically picking off people who had got up to run away."

"There was complete panic and confusion," he went on, "and I thought the best thing I could do was to tend to the injured with a friend. I was carrying a white pillowcase. We were both fired on and my friend was hit on the side of the face. Many of those who died were friends of mine, people I've known all my life."

"I can state absolutely positively that there were no snipers whatsoever. There had been stone-throwing, which had been taken care of. Sniper fire came 10 minutes later from local terrorists."

"The British Army shot down unarmed people and I hope no one has the audacity to stand up and say they were firing at snipers. They murdered innocent men."

#### DEATHS CALLED MURDER

Another local member of Parliament, John Hume, said that the soldiers had opened fire indiscriminately in an act that was "nothing short of coldblooded murder." He said that the city was numb with shock, revulsion and bitterness.

The March began quietly in a city housing development overlooking the historic city of 50,000 where the Protestant garrison held out successfully against the Catholic army of James II in 1689 and where the civil rights movement was born in 1968.

About 15,000 demonstrators from all parts of Northern Ireland marched on the city center. When their way was blocked by an army barricade about a quarter of a mile from their destination, the organizers diverted the parade toward a meeting point in the Bogside, a Roman Catholic area. But some marchers wanted a confrontation and showered stones and later nausea gas cartridges, stolen from the British Army, on the soldiers.

The soldiers replied with volley after volley of gas and rubber bullets and called in water cannon to spray the demonstrators with a purple dye.

The Paratroop Regiment, especially hated by Roman Catholics for their methods, then drove armored cars through the rioters and it was at this stage that rifle fire was heard over the duller thud of rubber bullets.

Civilians were shot down and one report said that a priest giving the last rites to a dying man was arrested and taken away for questioning.

The Roman Catholic Bishop of Londonderry, Dr. Neil Farren, sent a telegram to Prime Minister Heath demanding a public inquiry. William Cardinal Conway, Roman Catholic Archbishop of Armagh and Primate of All Ireland, also called for an independent and impartial public inquiry. "I am deeply

shocked at the news of the awful slaughter in Derry this afternoon," he said.

He called on Catholics to maintain their calm and dignity in the face of "this terrible news."

In Belfast, Brian Faulkner, the Ulster Prime Minister, issued a statement saying that the day's events "illustrate precisely why it was found necessary, with the full support of the government at Westminster, to impose a general ban on all processions throughout Northern Ireland." He said that the deaths today arose from "a meaningless and futile terrorist exercise."

The army headquarters, in a statement late tonight from Lisburn, near Belfast, said that the troops had come under nail-bomb attack and a fusillade of from 50 to 80 rounds.

"Fire was returned at seen gunmen and nail bombers," the statement continued. "Subsequently, as the troops deployed to get at the gunmen, the latter continued to fire. In all a total of well over 200 rounds was fired indiscriminately in the general direction of the soldiers."

In Londonderry, Miss Devlin, who is a member of the British Parliament, described the deaths as "mass murder" by the British Army. "This is our Sharpeville," she said, referring to the massacre of 72 black demonstrators in South Africa in 1960. "We will never forget it."

She said the soldiers had shot at a peaceful meeting and declared there was no point in calling for "whitewash" inquiries.

"All we can do is to continue the struggle to rid ourselves forever of this savagery," she said, calling for a general strike until the British Army was withdrawn. Other civil rights leaders have called for a day of mourning in Londonderry tomorrow.

In Belfast the killings are seen as a possible turning point in the Ulster crisis. Already there is speculation in political circles that if the Irish Republican Army retaliates the British may be forced to take over responsibility for security from the Northern Ireland Government. In extreme circumstances, the government here might have to be suspended and Ulster ruled directly from London.

Many have predicted a clash like today's and there will be little criticism in Protestant quarters for the army's action.

A clear warning was issued yesterday that the march would be stopped by force if necessary and it was on this assurance that militant Protestant leaders in Londonderry called off a counterdemonstration.

#### SPACE SHUTTLE IS WRONG

Mr. PROXMIRE. Mr. President, the Janesville Gazette argues persuasively that the space shuttle is wrong at the present time, and should be voted down. The Gazette admires as all of us do, the tremendous achievements in space during the last decade. But it notes:

That success has gone to our heads. We are a bit giddy. While we do not have the funds, we are challenged by the desire, (1) to be first again with the "mostest" in space; (2) to gain knowledge of what is out there; and (3) to prove to the world that we are still the greatest nation on earth, regardless of costs.

Mr. President, the Gazette is absolutely right. We simply do not have the funds to commit ourselves to this enormous expenditure now. At a minimum, the shuttle will cost \$5½ billion to develop, \$900 million for additional procurement, \$300 million for construction of new facilities, and \$3 billion for flight operations. And this does not include the tens of billions of dollars of additional payload that will

be needed to justify the shuttle's development cost.

Mr. President, I ask unanimous consent that the editorial entitled "Space Shuttle Is Wrong" from the *Janesville Gazette* of January 11, 1972, be printed in the *RECORD*.

There being no objection, the editorial was ordered to be printed in the *RECORD*, as follows:

#### SPACE SHUTTLE IS WRONG

Plans for a space station, which United States space scientists envision for take-off in 1974 or 1975, are in the practicability stage. And President Nixon has lent the tremendous weight of his office to it.

The space art has progressed to the point where man now is ready to put on the drawing boards the designs for both a space ship and the necessary shuttle rockets which would supply that orbital plane.

American citizens, accustomed to space rockets, manned landings on the moon, space dockings with a mother ship, and safe returns to earth, can hardly argue with the imagined realities of a space shuttle. If NASA can achieve the impossible, already proved possible, we can accept the probability of such a project—given the people's consent to spend what may perhaps be \$10 billion or \$20 billion, which they do not have.

The people consented—rather, their representatives in Congress consented without their strong opposition—to the spending of billions for the rocketry, the vast complex of scientists and mechanics at Houston and Cape Kennedy. The flights to this date have been unbelievably successful while all the world stood in awe.

That success has gone to our heads. We are a bit giddy. While we do not have the funds, we are challenged by the desire, (1) to be first again with the "mostest" in space; (2) to gain knowledge of what is out there; and (3) to prove to the world that we are still the greatest nation on earth, regardless of costs.

There is nothing new in pointing to the fact that, while our scientific and mechanical genius is "way out" our society is retreating. We are sacrificing man to matter.

The *Janesville Gazette* agrees with Sen. William Proxmire in calling this project at this time a monumental distortion of budgetary priorities.

There are two simple reasons: (1) Americans desperately need full concentration upon the human ills of their society, lest it fall, and (2) they do not have the funds. The costs would simply be loaded upon the already tremendous national debt, with all its billion dollar demand for the interest rat hole.

The White House declares the project will cost up to \$6.5 billion just to develop. Then additional billions would be needed to support the operation of the shuttle which scientist Werner von Braun said would fly at least every 14 days.

Perhaps this project should be put to referendum. It is our guess that the American people are more concerned with their own troubles at home than with sending a space car back and forth from here to Station X or to Mars.

#### EXPANDING THE VOTING FRANCHISE

Mr. MOSS. Mr. President, one of the surest movements afoot in our Nation for quite some time has been the movement toward a broader based democracy. Despite this expansion of the rights of full citizenship, however, Americans have not measured up to the citizens of most other Western democracies in terms of participation at election time. In 1968, for instance, more Americans of voting age

failed to cast ballots than voted for either of the major candidates. Afterward, Pollster George Gallup's organization concluded, following a survey, that:

It was not lack of interest but rather the residency and other registration qualifications that proved to be the greatest barrier to wider voter participation in our nation.

Pending before the Senate, soon to be debated, is a bill, S. 2574, sponsored by my colleague from Wyoming (Mr. McGEE), that would lower this barrier. Saturday's Washington Post carried an editorial supporting this legislation. The Post agrees that the expansion of democracy is a compelling need in our country today and can find no persuasive reason why a vote should be cast against this ingenious bill which the Post feels "would probably do as much to expand the franchise in this country as anything since the abolition of the poll tax."

Mr. President, I ask unanimous consent that the Washington Post editorial of January 29 entitled "Enlarging Democracy" be printed in the *RECORD*.

There being no objection, the editorial was ordered to be printed in the *RECORD*, as follows:

#### ENLARGING DEMOCRACY

Senator Gale McGee's interesting and ingenious bill to lower the barriers to voting in the United States by providing for voter registration through the mails is due to come to the Senate floor for a vote in the near future. Fourteen senators have joined Senator McGee in sponsorship of the bill, five of whom, it happens, are announced aspirants for the Democratic Party's presidential nomination. The bill would probably do as much to expand the franchise in this country as anything since the abolition of the poll tax. George Gallup observed, after a study of the voting patterns in the 1968 presidential election that "It was not a lack of interest but rather the residency and other registration qualifications that proved to be the greatest barrier to wider voter participation in our nation."

A variety of circumstances, apart from apathy, may operate to keep eligible voters from casting their ballots at the polls. Sickness, inclement weather, absence from home, work obligations, family needs may make it awkward or impossible to get to the polling place on Election Day. The hazards are at least doubled by the requirement in nearly every state that a voter must personally appear for registration at some appointed time and some prescribed place in advance of Election Day in order to become eligible to vote. A lot of states make registration quite troublesome for citizens who live in rural areas at some distance from the nearest courthouse and for citizens whose jobs make it difficult to get to registration places at times when registrars are ready to register them. The result is that the registration requirement cuts heavily into exercise of the voting franchise. Nine out of ten registered Americans go to the polls and vote. But only six out of ten voting age Americans actually cast ballots. By contrast, three-fourths of those old enough to vote in Canada do so; and the figure runs to 80 per cent in England, 85 per cent in Germany.

The McGee bill would simplify the process by providing for a system of postcard registration throughout the country to be run by the states with some assistance from a National Voter Registration Administration to be established in the Bureau of the Census. The Postal Service would deliver postcard registration forms to every household, enabling citizens to register for voting, at least in federal elections, by mailing these cards to their local election officials. Questionable reg-

istration forms could be checked just about as effectively as questionable registrants appearing in person. In Texas, where a similar system has been in effect for a number of years, there has been no perceptible increase in fraud.

The answer to the question Why in relation to this bill finds an easy answer. In 1968, some 47 million adult Americans did not participate in the national election—more than the number who actually cast ballots for any single presidential candidate. We do not see any persuasive answer to the question Why not. The expansion of democracy in America is now a compelling national need.

#### TRIBUTE TO SENATOR CARL HAYDEN

Mr. THURMOND. Mr. President, Carl Hayden's death saddens us all; however, it is with fond admiration that I reflect upon the years in which I knew him and served with him in the Senate.

We who served with him remember him as the real "dean" of the Senate. When he retired in 1969 he had served as the chairman of the important Senate Committee on Appropriations for the last 14 years of his tenure, and had served as the President pro tempore of the Senate for the last 12 years.

Mr. President, when we speak of public service we will always remember the name Carl Hayden. He served as a member of the city council of Tempe in the Arizona Territory until he was elected as treasurer and later as sheriff of Maricopa County. When Arizona became a State on February 14, 1912, Carl Hayden was elected as its Congressman at Large. He served in that capacity until 1926 when he was elected to the U.S. Senate and served until his retirement in 1969.

Mr. President, during Carl Hayden's service in Congress, Arizona progressed from a Territory to a State—from a population of only 200,000 to one of over 1.75 million today. Much of the progress of Arizona can be attributed solely to the work and diligence of Carl Hayden. He labored continuously for projects of various types which would benefit his State. His labors were successful as can be evidenced by the project for which he probably worked the hardest—the central Arizona water project which he saw signed into law in 1968. It is fitting that the two Senators from Arizona, Senator GOLDWATER and Senator FANNIN, have proposed this project be renamed the Carl Hayden project.

Mr. President, those of us who knew Carl Hayden were indeed privileged. We were fortunate to have been associated with a man of great ability, whose greatness was also evidenced by his compassion for mankind. The passing of this distinguished public servant gives us a feeling of sorrow, but we, as well as his family, can be proud of his service and his many contributions to our country.

Mr. President, I ask unanimous consent that an editorial appearing in the January 27, 1972, edition of the *News* concerning Senator Carl Hayden be printed in the *RECORD*.

There being no objection, the editorial was ordered to be printed in the *RECORD*, as follows:

#### CARL HAYDEN, D-ARIZ.

It is possible that until his obituary notices appeared in yesterday's papers, Carl



Hayden was only barely known outside Arizona, Washington, and some of the more senior political circles.

Mr. Hayden's best-known distinction was his long tenure in Congress, 15 years in the House and 41 years in the Senate, 56 all told. His longevity is a record, both in total and in the Senate.

Several years ago Mr. Hayden told Richard Starnes, Scripps-Howard Washington writer, about making his first speech in the House—in 1912. When he sat down an elderly fellow member told him: "There are two kinds of congressmen, show horses and work horses. If you want to get your name in the newspapers, be a show horse. But if you want to gain the respect of your colleagues, keep quiet, be a workhorse, and speak only when you have the facts."

Mr. Hayden elected to be a workhorse. He indulged himself utterly in the business of Congress, and only rarely made a speech.

He overstayed his time in the Senate; falling health and age had impaired his abilities. But when he retired in 1968 at age 90 everybody in Congress knew that this was the end of a career which had been marked by great power, nimble political footwork, decades of high respect and a constituent popularity hardly excelled by any.

Mr. Hayden had been a territorial sheriff in Arizona when the state was admitted to the union. He was the state's first congressman, and over the years he seldom had to campaign for re-election. No opposition could touch him. In the Senate, his long chairmanship of the Appropriations Committee gave him enormous influence, which he used with tact and effectiveness. As a champion of government irrigation and reclamation projects in the West, Mr. Hayden, as an associate once said, "probably brought water to more desert land than any man since Moses."

And all the while, he stuck to the workhorse pattern, never, never permitting himself to resemble a show horse. In that sense alone, the present Congress could use several dozens like him.

### LOCAL GOVERNMENT IN JEOPARDY

Mr. BEALL. Mr. President, our Founding Fathers, in their extraordinary wisdom, patterned this country on a model of federalism. Different levels of government were set up to handle different types of problems. It was to be a system where each step—local, State, and Federal—would work in harmony, neither one of which should take a preponderant position in the affairs of its citizens. The reasoning behind this unique concept was that government functioned best when under the close and watchful eyes of its citizenry.

But now, Mr. President, the very survival of this grassroots democracy is being threatened. Good Federal Government requires a strong, viable local government, able to cope with their own problems in their own way. But as these problems increase, the ability of localized government to effectively deal with them decreases at an alarming rate. These agencies are left with growing difficulties that they have neither the responsibility nor the authority to correct themselves.

One man who knows of this in an acute fashion is James P. Gleason, the able county executive of Montgomery County, Md. Mr. Gleason outlined the problems of local government recently in a keynote address to the annual winter

meeting of the Maryland Association of Counties, meeting in Easton, Md., on January 20, 1972. In his remarks, the county executive spoke of our present system, which allocates problems to the local government, powers to the States, and money to the Federal Government. Hence, the localities have been incapable of effectuating positive change in their areas, because they have not been given the means necessary to respond.

The hallmark of a vital governmental system is meaningful citizen participation, but this involvement is being greatly hindered by the removal of responsibility to higher and higher levels. For example, Mr. Gleason points to the rapid growth of grant-in-aid programs. In the last 10 years the number of programs increased over three times while expenditures, now at \$38 billion, show an upward jump of 475 percent. Yet, regrettably, the results in too many cases have not met the expectations. Goals have not been reached, and Mr. Gleason offers some compelling reasons for these failures.

Local government has an innate governmental advantage in its closeness to people, but this proximity goes to waste if needed authority and responsibility are not granted. I believe, as County Executive Gleason does, that local government can and will work if given the chance. Only through effective utilization of governments closest to the people can we realize the full potential of public service.

I ask unanimous consent that the address by County Executive Gleason before the Maryland Association of Counties be printed in the RECORD, so that my colleagues might have the opportunity to read of these positive proposals.

There being no objection, the address was ordered to be printed in the RECORD, as follows:

#### FUTURE SHOCK—LOCAL GOVERNMENT IN JEOPARDY

(By James P. Gleason)

Mr. Sullivan, Judge Sweeney, Mayor Purdy, distinguished ladies and gentlemen . . .

As elected representatives of local government, I want to discuss with you today the critical state of jeopardy which confronts the residents of our 23 counties and the City of Baltimore. The great issue at stake here—not only in Maryland, but throughout the country at-large—is the survival of grassroots democracy.

Two years ago, Mr. Alvin Toffler wrote the bestselling work *Future Shock*, in which he analyzed the effects of change on modern society. One of Mr. Toffler's major thesis is that changes affecting our citizens are growing at such a rapid rate and that governmental responsiveness to such changes is so limited that we are "in a churning, goal-cluttered environment, staggering future shocked from crisis to crisis . . ."

Government's only response to the new problems of modern society has been to expand and spend. During the decade just concluded, total governmental expenditures have increased 130% while the population has increased only 13.5%.

The people have responded by demonstrating a growing distrust of their government leaders as evidenced by recent national public opinion surveys.

The National League of Cities recently surveyed citizen opinion on taxes and services in ten cities throughout the United States. In Baltimore the results revealed a consensus among its citizens that taxes were too

high and services were too low. This crisis threatens the very existence of the institution of which most of us at this conference are a part. From my vantage point as the Chief Executive of one of our larger counties, I view this crisis as one which allocates problems to local government, power to the states, and money to the federal government.

It is against this background that I speak to you today.

Let us review briefly the case for county government. Two hundred years ago, Thomas Jefferson said, "Our country is too large to have all its affairs directed by a single government. Public servants at such a distance and from under the eye of their constituents must . . . be unable to administer all the details necessary for the good government of the citizens . . ."

Proximity is the great advantage of local government, but this proximity is meaningless if local government is not given the authority and responsibility it needs to serve its citizens effectively.

The nationwide erosion in the authority of local government has produced a situation in which the individual citizen finds himself paying more and more in taxes each year only to receive less and less back in real service.

Service is the primary product of government in a democratic society. Government at all levels exists to deliver services. Over the years, the range of services which government has been called upon to provide has grown enormously, but government's principal function still remains the delivery of those services demanded by the people.

In a free society, however, service must never be imposed upon the citizen without his consent or participation. But, as the responsibility for delivery of government services is removed to higher and higher levels, the opportunities for meaningful citizen participation are correspondingly reduced.

As the opportunities for citizen involvement in the design and administration of programs intended to serve him are reduced, his apathy is increased and his confidence is decreased.

Local government, on the other hand, is by its very nature more visible, more accountable and, when given the chance, more responsive than either state or federal.

It is for this reason that the average citizen should care about the future of local government. Its future is his future.

The trend of federal programs in areas which traditionally have been the province of local jurisdictions has shown, as you are probably aware, a marked acceleration in the past decade. During that time, a vast assortment of federal programs have reached down to the local level where they have frequently usurped the authority and initiative of local authorities.

I am not here to question the motives behind the programs or the sincerity of the men who design and administer them. I would point out, however, that increased federal involvement in what were once areas of exclusively local concern has not been good for local government. This, in turn, has not been good for our citizens.

Let me cite a few examples which illustrate how the growth of federal influence on our localities can affect the quality of government service available to our citizens.

Many of you have probably had first hand experience with the Department of Housing and Urban Development comprehensive planning grants. HUD's requirements for comprehensive planning are contained in a thick handbook which must be followed carefully in order to qualify for federal aid. Specifically, each locality must prepare an overall program design outlining all planning projects it expects to undertake for a period of three years. This must be done regardless of the source of the funds. Even after all this work is completed, the application must then go to the State where prior-

ities are set—often in contradiction to the priorities set by the local governments. In Montgomery County we are still waiting for approval of a planning application which was prepared and submitted 18 months ago. Thus, the needs of the people go unmet, having fallen victim to government bureaucracy.

The Omnibus Crime Control and Safe Streets Act is another example of a federal program which dilutes the ability of local governments to respond effectively to the law enforcement needs of the residents. Here again the federal government requires a state comprehensive plan, thus giving the states the ultimate authority in determining what programs will be financed at the local level.

I could catalog a long list of programs where the federal government has used its financial power to bring about state and regional control over the affairs of local government.

Comprehensive health planning, environmental programs, the Cooperative Area Manpower Planning System and OEO programs all require the establishment of area wide or regional bodies, the effect of which is to impose an additional level of decision making power over local governments.

In the same way, the federal "point evaluation system" for water, sewer and open-space grants frequently makes it difficult for local jurisdictions to effectively serve the needs of their citizens as they see it and still score high enough to qualify for federal aid. Local control is thus effectively removed and local government's authority is seriously undercut.

To provide you with some scale of the federal efforts in local matters, I cite the record that ten years ago, there were 160 grant-in-aid programs with appropriations of 8 billion dollars. Today, there are 530 such programs with a price tag of 38 billion dollars of federal money.

The goals of these programs are laudable. Unfortunately, based on past performance, there is no reason to conclude they will work satisfactorily now. In the light of federal accomplishments we can only conclude that our health problems will be greater a decade from now, crime will continue to increase and the judicial and correctional systems will still be unable to contend with the increasing demands placed upon them. In spite of the well-intentioned programs to promote comprehensive planning, we will still see urban sprawl, damage to the environment, and horrendous transportation problems.

Why is this so? Why hasn't the federal solution worked? And why can't it? The reason is that the decisions are being made and the programs controlled at the wrong level of government.

In Maryland as in many states, the increased involvement of the federal government in local programs has been matched by an increased involvement of state government. What programs were not taken over by the federal establishment were, in many cases, taken over or complicated further by the states.

According to expert opinion, one of the principal reasons that the proposed new Constitution recently went down to defeat was the fear of many persons that regional government, which could have been created under the proposed changes, would have destroyed local government. I wonder today, three years since the proposed Constitution has been dead and buried, how many people realize that local government is possibly being destroyed because the state government is taking over or trying to take over many local government activities. We are experiencing transfers and proposed transfers of governmental programs from the counties and Baltimore City to the State of Maryland with unprecedented magnitude. These transfers usually have been cloaked behind the trappings of "Blue Ribbon" study commis-

sions, Governor's "Task Forces," improved economies and efficiencies, uniform programs or interim measure. But as Al Smith used to say, "No matter how thin you slice it, it's still baloney."

Here is the recent record:

1. In 1971, the General Assembly enacted legislation for the state to assume the full cost and, as we are seeing, a great deal of control, for school construction. Proposals are now constantly being made for the state to assume the total funding for education. Those urging this program always talk of preserving local control but this we know from past experience will not be the case if the state furnishes the funds.

2. A state takeover of health programs is proceeding on many fronts.

3. In the water, sewer and solid waste areas, every county has been mandated by the state to produce a county water and sewer master plan. Such plans and any amendments to them are subject to approval by the State Health Department. Each county is required to produce a solid waste master plan by 1974. Such plans also must receive approval by the State Health Department. In addition, the Maryland Environmental Service has been authorized to create service regions and districts outside of county boundaries to provide state-wide treatment and disposal service.

4. In the area of parks and recreation, the state invaded the traditional sources of revenue for local government—a property transfer tax—to move into the field of park acquisition. This so-called open space program from which the state has collected \$28 million dollars for parkland acquisition has resulted in an expenditure back to the counties of only \$3½ million dollars.

5. In the housing area, the state is now authorized to enforce a state-wide certification and inspection system for industrialized housing and mobile homes. It has authorized the development of a statewide plumbing code for enforcement in local jurisdictions.

6. In the field of taxation, the state has refused to grant any tax flexibility to local jurisdictions and recently removed the authority of county governments to impose certain sales taxes.

7. The judiciary functions which were almost entirely locally administered and controlled, appear destined for complete state funding and control in this decade.

8. In the area of land use planning and zoning, we already have imposed a state control over sediment and erosion control programs, and the State Planning Department has been discussing land use developments in an organizational framework which will make major modifications traditionally local zoning concepts.

9. In the area of property assessments, the Governor has been pressing to have transferred to the state the entire administration of the assessment program.

The above record could cover many other areas of activities which have traditionally been matters of local jurisdiction and responsibility. It does, however, illustrate the trend of the state toward reducing local governments to collectors of trash and patchers of potholes and effectively diluting the voice of citizens in the administration of governmental programs. If the role of the state government—such as it has been in the fields of penal detention, juvenile services, mental health, hospital care, and others—had given any evidence of responsiveness to citizen concern and input, perhaps we would not be so frustrated by the above developments.

The problem essentially is that the state refuses to recognize that not all administrative expertise and wisdom resides in Annapolis; not all local programs are improved by unification and standardization; and all policy should not be made by the Governor or the General Assembly.

Why have state and federal governments

failed to recognize the problem of diminished citizen interest and why do they instead insist on assuming more and more of the responsibilities of local government?

It must be recognized that after World War II, local government (and in many cases, state government) was not equipped to deal with the rapid growth and changes it faced. It lacked the power; it lacked the money. This was a new era and the federal government stepped into the vacuum. The federal assumption of many of the problems faced by local and state government in this period of accelerating growth and change was helpful.

However, as is often the case, we got too much of a good thing and grew to depend too heavily on federal help to do everything for us. We in local government neglected to take the initiative ourselves in areas where we could.

Now we have the means to deal with our problems. But the dilemma today is that the federal and state governments do not understand what local government can do and why it often can do it better. They assume, I think, that local government is incapable of handling the serious problems it faces, and in making this assumption they ignore something of which we in Maryland should be well aware.

Local government on the county level can work and work well if it is only given the chance.

The urban counties of Maryland are prime examples, but unfortunately our own state government often fails to recognize the great potential sitting on its very doorstep.

Priceless opportunities are being missed because the state government is not tapping the potential of its urban county governments.

We badly need responsible local government not only to deal with the problems which have traditionally been the province of local jurisdictions, but also as conduits to channel state and federal service to the citizens. In bypassing the counties in a state where the potential for responsive and effective county government exists, the state and federal authorities risk a further separation of the citizen from the focus of authority for programs which affect his life and a corresponding decrease in his confidence in government as a whole.

Maryland is blessed with counties which, in most cases, are natural regions. These counties are free, for the most part, of complicated internal subdivisions. Our urban counties possess some of the most progressive forms of county government in the country.

Maryland, however, has not awakened to its good fortune and has not taken advantage of a situation many other states would justifiably envy.

For Montgomery County the result has been a decline in the quality of service in many areas which the county itself believes it should provide. But even for counties where state takeover of school construction, courts, public defender systems, and other programs, may mean a momentary improvement in service, the removal of citizen participation and local responsibility poses a serious threat.

Montgomery and the other urban counties have had their "future shock." For us, the future is now. But the rest of our counties will also face a very real shock if they are stripped of the means to confront and deal with their destiny of growth and development.

We all share the risk of being overwhelmed by growth, a risk made greater by the erosion of our right to local government. The as yet undeveloped counties, however, are in the greatest danger because, for the most part, they have not yet felt the shock of growth. Those of you who represent counties which have not yet had to cope with



rapid growth and urbanization should note that the problems faced in local government in Montgomery County today will face you tomorrow.

If the trend I have discussed this morning continues gentlemen, County Executives, County Councilman and other elected and appointed officials of local government in Maryland and throughout the nation will soon find themselves with meaningless jobs.

We face the very real prospect of becoming little more than ceremonial ribbon cutters for state and federal projects, ribbon cutters who will neither conceive nor implement nor administer the programs our citizens deserve in a new decade. Such a situation will certainly not be in the best interests of those we are sworn to serve and it is our responsibility today to see that it does not come to pass.

I have attempted to outline some of the major problems confronting county government and the citizens of our respective communities. The time is late for appropriate governmental reform. I submit for your consideration two specific recommendations. First, the General Assembly approved a Commission established by the Legislative Council to make an in-depth study of the functions of government that should be performed by the state government and those that should be performed by local government. The Commission was also directed to review and recommend the fiscal resources required to support these functions. The Assembly approved and called for the implementation of this Commission over seven months ago. I would urge that this Association insist on the activation of this Commission, which was supposed to report its findings to the General Assembly by January 1, 1972—three weeks ago.

Second, I would urge you to resist any further erosion of local government responsibilities.

The citizens of our country and Maryland badly need effective and responsible local government and local government needs our best efforts if grassroots democracy is to survive.

Thank you.

#### VIEWS OF JUSTICE FELIX FRANKFURTER ON THE EQUAL RIGHTS AMENDMENT

Mr. ERVIN. Mr. President, many years ago the late Justice Felix Frankfurter wrote to the New Republic magazine which I feel expresses a great deal of truth about the equal rights amendment that will soon be considered by the Senate. Justice Frankfurter certainly expresses my feelings in his letter when he states that he "cares as deeply as a man can care for the elimination of unjustifiable differentiations in law between men and women," but Justice Frankfurter goes on to criticize the strenuous efforts of the equal rights for women advocates to remove all differences in the law in the treatment of women and men. Justice Frankfurter concludes his letter by stating that—

The Woman's Party cannot amend nature. But it can add considerably to the burdens already weighing too heavily upon the backs of women, the industrial workers, who are least able to bear them.

I certainly agree with Justice Frankfurter and I hope every Member of the Senate will read his letter as a contribution of a very wise man to the up-and-coming debate on the amendment. Realistically, I feel the soundness of his pronouncements are evidenced by the

fact that most labor unions in this country, including AFL-CIO, strongly oppose the equal rights amendment.

Mr. President, I ask unanimous consent that the letter by Justice Felix Frankfurter which appeared in the New Republic be printed in the RECORD.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

UNIVERSITY OF CHICAGO,  
Chicago, Ill., April 6, 1971.

Representative DON EDWARDS,  
House Judiciary Committee,  
Rayburn House Office Building,  
Washington, D.C.

DEAR MR. EDWARDS: If the record on the equal rights amendment hearings is not yet closed, I should like to append thereto a letter by Felix Frankfurter, written to the New Republic way back in 1924 but which still has, I think, great relevance to the issues pending before the committee.

I regret very much that my mother's very serious illness prevented me from attending the hearings.

Sincerely yours,

PHILIP B. KURLAND.

#### THE EQUAL RIGHTS AMENDMENT

Miss Crystal Eastman challenges the gallantry of men by offering as a poser, in connection with the "equal rights" amendment of the Woman's Party, the question: "How would you feel about it if you were a woman?" Her question assumes a power of imagination which, alas, has been denied to mere man just because he can only think within his own skin. Therefore, I can't tell her how I would feel about it as a woman. It may be more relevant for me to tell her how I feel about it as one who cares, I suspect, as deeply as a man can care for the elimination of unjustifiable differentiations in law between men and women, but one who also happens to be a lawyer and perhaps familiar with what law can do and what law cannot do, in the significant details that matter.

The legal position of woman cannot be stated in a single simple formula, especially under our constitutional system, because her life cannot be expressed in a single simple relation. Woman's legal status necessarily involves complicated formulation, because a woman occupies many relations.

The law must have regard for woman in her manifold relations as an individual, as a wage-earner, as a wife, as a mother, as a citizen. Only those who are ignorant of the nature of law and of its enforcement and regardless of the intricacies of American constitutional law, or indifferent to the exacting aspects of woman's industrial life, will have the naivete or the recklessness to sum up woman's whole position in a meaningless and mischievous phrase about "equal rights." (I am aware that Crystal Eastman once upon a time knew something about law; but that was long ago and far away. Now she disregards her former learning and writes as a "feminist.") Nature made man and woman different: the Woman's Party cannot make them the same. Law must accommodate itself to the immutable differences of nature. For some purposes men and women are persons and for these purposes the law should treat them as persons, subjecting them to the same duties and conferring upon the same rights. But for other vital purposes men and women are men and women—and the law must treat them as men and women, and, therefore, subject them to different and not the same rules of legal conduct.

The unjustifiable legal differentiations as to women still existing in different States vary greatly from State to State. Now that women have the vote, these discriminations will readily yield to correction by appropriate

State action, provided the attempts at reform are preceded by an effective analysis of the legal situation in each State, an understanding formulation of remedies and an adequate educational exposition of the evils and remedies as a preliminary to legislation. But in a binding effort to remove remaining differences in the law, in the treatment of women as compared with men, which do not rest on necessary policy based on inherent differences of sex, the Woman's Party would do away with all differences which arise from the stern fact that male and female created He them. The Woman's Party cannot amend nature. But it can add considerably to the burdens already weighing too heavily upon the backs of women, the industrial workers, who are at least able to bear them.

#### SENATOR WILLIS ROBERTSON

Mr. THURMOND. Mr. President, it is an honor for me to speak on this floor in praise of our late colleague, Senator Willis Robertson. Many things can be said of him, but two things stand out in my mind. The first is that Willis Robertson was a man of impeccable integrity. The second is that he was a man of intellect and learning.

In my judgment, it was these two qualities which combined to make Willis Robertson a devoted and effective public servant for his State of Virginia and for the Nation.

Mr. President, Senator Robertson was known for his strong stand in favor of a sound fiscal policy and he propounded this position with great skill and with a thorough knowledge of his subject.

So extensive was his expertise in the field of finance that after he left the Senate he served as a consultant to the International Bank for Reconstruction and Development and, of course, many of us in the Senate know of his great contribution to this body's deliberations on financial matters.

Before ecology and environment became household words, Willis Robertson knew of the importance of both and devoted much of his energy and constructive efforts to preserve the beauty and quality of our natural resources. He was an avid outdoorsman; he loved the mountains and the streams of his native Virginia. He worked hard for swordfish and game policies and many people throughout the United States are today enjoyed hunting and fishing areas because of cooperative State-Federal programs which Willis Robertson promoted.

It has been said that Willis Robertson came from the same mold which produced Virginia's early statesmen. Those of us who knew him and admired him can attest to this. He possessed that combination so essential in a statesman: Great moral character and purpose on one hand, and the knowledge and ability to shape events on the other.

Mr. President, we miss him as a Senator and as a friend and hope that our words may be of comfort to his family.

#### THE MEANING OF A 6-PERCENT UNEMPLOYMENT RATE

Mr. PERCY. Mr. President, an unemployment rate as high as 6 percent is a serious human and economic problem in

a nation whose objective is fullest possible employment. Accordingly, the Nation's unemployment situation has received substantial attention and a major objective of economic policy has been to increase jobs at a still faster pace and decrease the number of the Nation's unemployed.

But the unemployment statistics are aggregate statistics, and as with any such statistics, the aggregate figure hides several trends which when understood tend to reduce some of the impact of the aggregate figure. An article by John O'Riley in the January 17 edition of the Wall Street Journal makes this clear. Mr. O'Riley points out that teenage unemployment represents 26 percent of 5.2 million unemployed in December, even though teenagers are only a fraction of the total work force. The point is that teenage unemployment gives a boost to the overall unemployment rate drastically out of line with the teenagers' working role in the economy.

About one-third of the unemployed in December were women. This is not to say that women are not important as full-time employees, many of whom provide the entire support for their families. But Mr. O'Riley points out that in November the Labor Department figured 15 percent of the jobless adult women had quit their jobs voluntarily, and another 44 percent "had actually been out of the labor market for some time, and, deciding to work again, had not found jobs to their liking."

These facts should cause us to treat the 6-percent rate with less alarm. Unemployment remains a serious problem and economic policy should be geared to creating fullest possible employment. But an understanding of the facts behind the aggregate figure makes it seem less awesome and more manageable.

I ask unanimous consent that the article referred to be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

#### APPRAISAL OF CURRENT TRENDS IN BUSINESS AND FINANCE

Unemployment. Of all the economic numbers tossed about with minimal understanding these days, the one representing the unemployment rate probably tops the list of the most-used and least-comprehended. Few political speeches can do without it. Reformers trumpet it. Talk about it is heard from the pulpit and in the seminar. It besprinkles the chitchat of the cocktail hour. Even school kids refer to it. But there is, withal, much more talk than clear thought on the subject. And maybe another try at keeping it in perspective is warranted.

Fluctuating within a fraction of a point for more than a year, the much-mouthing figure now stands at 6.1%. Contrasting this with manpower-tight wartime rates (more men in the armed services, more workers in defense plants), most commentators seem to take it for granted that this represents a very bad situation indeed.

But others are beginning to wonder: Looking about them for other evidences of really large-scale joblessness, they find themselves confused. The following paragraph reflects this confusion. It is excerpted from a letter among those flowing across this writer's desk.

"There is something wrong—radically wrong—with the unemployment figures. With all the unemployed reported, it would

be reasonable to assume that you could get a car washed, that you could get a house painted, that an electrical contractor could hire helpers, that it would be possible to employ people for clerical positions such as bank clerks. . . . But I have checked many sections of the country and they all report the difficulty in finding people to take jobs."

The letter writer may be guilty of exaggeration. And his cross-country survey may have been less than scientific. But he has a point. And it is this: Sure, there are people out of work today—there always are. But is the situation now anything like as bad as it is commonly painted? And if it is indeed so bad, why is it that would-be employers so often find it hard to hire people?

These questions aren't easy to answer. But an honest effort can be made.

The best starting point is a look behind the 6.1% figure at the total number of people classified as unemployed, and a breakdown as to who they are. The Labor Department's estimates for December are as follows:

Age-Sex Groups:	Jobless
Males, 20 yrs and over-----	2,141,000
Females, 20 yrs and over-----	1,710,000
All Teenagers (16-19 yrs)-----	1,365,000
<b>Total -----</b>	<b>5,216,000</b>

As a source of public befuddlement on this overall unemployment picture, the most important figure by far in the above table is the one for teenagers. The teenagers, of course, represent only a tiny fraction of the working manpower in the nation, but it will be noted that they account for more than a fourth—26 out of every 100—of the "unemployed."

Over half of all employed teenagers quite logically only work part-time—on after-school jobs and such. But if any one of these kids is looking for even an after-school job in the overall unemployment total as an out-of-work head of a family.

Under this system of calculation, the teenage unemployment rate, now about 17%, gives a boost to the overall unemployment rate drastically out of line with the teenager's working role in the economy. The December jobless rate for adult men was actually only 4.4%—and for married men only 3.3%.

Teenage unemployment heavily concentrated in big-city slums is a serious thing. Hundreds of thousands of deprived youths, oppressed by grinding poverty, frustrated by idleness, tempted by drugs—their plight adds up to a dangerous, crime-breeding rash of sores on the social body. Only the blind can fail to see the evil in it and be concerned about finding a remedy. But to use this situation to help paint a picture of massive joblessness among bread-winning adults is plainly misleading.

Now note the womenfolk in the unemployment breakdown. Women play a far greater role in today's payroll working force than they did just a few years ago. Wage-earning females have increased by nearly 10 million in the past decade—a gigantic leap of some 50%. And just as they have increased their role in the work force, they have increased as a factor in the unemployment totals.

It will be noted in the table above that more than 1.7 million, or roughly a third of the total unemployed, are adult women. And, more important, they account for 44 of every 100 adults classified as unemployed.

But there are not many women electrical workers. Or house painters. Or car washers. Or TV repair technicians. Or auto mechanics. The list of jobs where womenpower, swollen as it is today, just doesn't fit importantly into the picture goes on and on.

Thus when you remove from the unemployed the largely unskilled and largely part-time available teenagers, plus the women, who are not trained for so many occupations, you begin to get at least a partial answer to the man who wonders why, "with

all the unemployed reported, "it is often so hard to hire people.

It should be noted that adult women, as a source of family income, are not to be compared with the teenagers. Many women today provide the sole support for their families. And many more provide a sizable part of it.

But as a group (a now big group, remember) they are still to a much greater degree in-and-outers in the labor market than are the men. Far less than half of the women labeled unemployed are so classified because they lost jobs. A recent (November) Labor Department estimate figured 15% of the jobless adult women were thus listed because they had quit their last jobs voluntarily. And another whopping 44% had actually been out of the labor market for some time, and, deciding to work again, hadn't found jobs to their liking.

No, the "6.1% unemployed" figure is not one to be happy about. But the public misconception it engenders is probably too big to measure.

#### EQUAL EMPLOYMENT OPPORTUNITIES ENFORCEMENT ACT OF 1971

The PRESIDENT pro tempore. Under the previous order, the Chair lays before the Senate the unfinished business, S. 2515, to further promote equal employment opportunities for American workers.

Amendment No. 812 is the pending amendment.

The time between now and 2 p.m. will be equally divided between the manager of the bill (Mr. WILLIAMS) and the Senator from North Carolina (Mr. ERVIN), with the vote on the amendment to occur at 2 p.m.

Time on any amendment, appeal, or point of order relative to the amendment will be limited to 20 minutes, to be divided between the mover of the amendment and the manager of the bill, if he is opposed to it; otherwise, the time will be under the control of the minority leader or his designee.

Time on any amendment to the amendment or appeal or motion is to come at the end of the time on amendment No. 812.

The clerk will state the amendment. The legislative clerk read the proposed amendment as follows:

1. On page 32, strike out lines 8, 9, and 10.
2. On page 32, line 18, insert the words "a State or political subdivision thereof" between the comma following "United States" and the words "an Indian tribe."
3. On page 33, strike out lines 4 and 5.
4. On page 33, strike out lines 11, 12, and 13.
5. On pages 32 and 33, renumber (2) and (4) as (1) and (2), respectively.
6. On pages 36 and 37, strike out everything from the beginning of line 22 on page 36 through the end of line 12 on page 37, and re-letter the remaining subsections appropriately.
7. On pages 38 and 39, strike out everything from the word "In" on line 18 on page 38 through the word "hearing" on line 2 on page 39.
8. On page 48, strike out everything from the word "upon" on line 14 through the word "importance" on line 24.
9. On page 49, strike out everything between "Subsection (c)" and the words "or the efforts" on line 2.
10. On page 49, strike out everything between "Subsection (f)" on lines 6 and 7 and the words "or the Commission" on line 8.



11. On page 54, strike out everything from the word "or" on line 16 through the word "Subdivision" on line 17.

The PRESIDENT pro tempore. Who yields time?

Mr. HUGHES. Mr. President, I suggest the absence of a quorum.

The PRESIDENT pro tempore. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. ERVIN. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDENT pro tempore. Without objection, it is so ordered.

Mr. HUGHES. Mr. President, will the Senator yield?

Mr. ERVIN. I yield.

Mr. HUGHES. Mr. President, I ask unanimous consent, with the Senator's permission, that the time consumed during the call for the quorum be equally divided between both sides.

The PRESIDENT pro tempore. Is there objection? The Chair hears none, and it is so ordered.

Mr. ERVIN. I yield myself the time that I shall consume.

I stated on Friday that this bill, insofar as it seeks to extend this coverage to all the employees of States or the political subdivisions of States, is inconsistent with our federal system of government and that it represent the greatest grab for power ever made by the Federal Government.

The people opposed to this extension of power of the Federal Government over the States are not simply sinful Southerners like the Senator from North Carolina. They are found in the offices of the attorneys general of the States of Montana, Tennessee, Oregon, Utah, and Washington.

I read a letter from Slade Gorton, attorney general of the State of Washington:

DEAR SENATOR ERVIN: Thank you for your thoughtful letter on the subject of the above-numbered bill.

The state of Washington already has a statute comparable to the proposal contained in that bill, covering state and local government employment as well as private employment. Personally, I prefer an approach through state legislation, coupled with firm and fair state enforcement.

I read a letter from Robert B. Hansen, deputy attorney general of the State of Utah:

DEAR SENATOR ERVIN: In response to your letter of Dec. 1, it is the view of this office that the subject bill would be an unwise extension of Federal bureaucracy into state affairs. The principle of the bill, as you note, is commendable, but the mechanics of implementing it is directly contrary to traditional concepts of the right of a sovereign state to manage its own affairs.

It has been our observation that many Federal programs unduly interfere with the proper sphere of local government activities and does so at a cost which is greatly disproportionate to the value conferred.

For instance, in Utah, we have had only three cases of claimed discrimination brought to our attention during the past three years, each of which was settled by a phone call plus a personal interview in one of them. If these cases had been processed by a bureaucrat on the Federal payroll supported by the usual office and staff the cost to

the taxpayer would be an astronomical multiple of the cost actually necessary to resolve these problems here.

If we can be of any further help in connection with this matter, I will appreciate hearing from you.

Lee Johnson, attorney general of the State of Oregon, wrote me as follows:

DEAR SENATOR ERVIN: Pursuant to your request to share my views on the above-proposed legislation, please be advised that, although I am the chief law officer of the state, and am familiar with Oregon's civil rights legislation, I am not the administrative agency which enforces that legislation. As far as my office is concerned, Oregon already has complete coverage of governmental employers under our own civil rights statutes. Therefore, there is no need for S. 2515 to solve problems in Oregon.

I am enclosing a copy of Oregon's civil rights statutes (ORS 659.010 to 659.110). You will note therefrom that all levels of government, except federal, are encompassed within the definition of an "employer," although they may employ as little as only one employee [ORS 659.010(6)].

In addition, Oregon's law covers all classes of discrimination covered by federal legislation (race, religion, color, national origin, sex and age). Only in the area of age discrimination is the Oregon law not broad enough to cover all private and governmental employers.

Investigatory, conciliatory and adjudicatory jurisdiction over complaints of discrimination are granted by our state statutes to an administrative agency, with the right of appeal to the State Court of Appeals and the State Supreme Court.

If you have any further inquiries, please do not hesitate to contact me.

I also read a letter from David M. Pack, attorney general of the State of Tennessee:

DEAR SENATOR ERVIN: I am writing to acknowledge with appreciation your letter of December 1st with which you enclose a copy of S. 2515, being entitled a bill "to further promote equal employment opportunities for American workers." Please be advised that I am entirely in accordance with the sentiments expressed in your letter and in the remarks made by you on the Senate floor when a similar bill was considered by the 91st Congress. It is my firm conviction that the effect of this measure would be deleterious to the federal concept of government and that it would further curtail the constitutional prerogatives of the respective states and increase the impersonal bureaucratic control which weighs so heavily upon the nation today.

As the foremost constitutional authority in the United States Senate you are eminently qualified to bring the dangerous and pernicious characteristics of this legislation to the attention of the Congress and the nation. Please be assured of my complete and unqualified support and of my opposition to this proposal as it is presently drafted. It is my purpose to communicate these views when it appears that an expression of my opinion may be effective.

I read a letter from the attorney general of Montana, Robert L. Woodahl:

DEAR SENATOR ERVIN: I have reviewed the materials you sent concerning Senate Bill No. 2515, the proposed Equal Employment Opportunities Enforcement Act of 1971.

Although this legislation is quite detailed in terms of enforcement procedures, I feel that it is lacking in clarification relative to its potential impact on state governments. This is indeed unfortunate, since the possible ramifications on individual state governments could be extremely detrimental.

I would agree that the inclusion of state governments, governmental agencies and governmental activity within the scope of the Equal Employment Opportunity Act amounts to a broad extension of the powers given the Equal Employment Opportunity Commission under the Civil Rights Act of 1964. The regulation of employment practices within state government is a matter which should properly be left to the individual states, since state governments certainly are in a better position to handle, on an informed basis, employment difficulties arising in their respective jurisdictions. Also, and perhaps more significantly, I believe as you do that the principle of federalism as expressed in the Tenth Amendment to the United States Constitution would suffer serious impairment by the enactment of Senate Bill No. 2515.

I strongly support the maintenance of the concept enunciated by the Tenth Amendment, and I appreciate your sharing your thoughts on this matter with me.

Mr. President, as was pointed out in the last letter I read, there is nothing in the bill that clarifies who is a State employee or an employee of a local political subdivision of a State. Does it include the Governor of the State? Does it include the supreme court justices of the State? Does it include the members of the State legislature? Does it include all those elected sheriffs in the various counties? Does it include the various clerks of the court and other men who exercise executive and judicial power?

This would give the Federal judge a broad mandate to go out and subject to his domination all the employees of a State and all the employees of a political subdivision of a State.

As I argued last Friday, and I think my argument cannot be successfully contradicted, this would make Federal judges into employment bureaus for States, even though they lack capacity to determine many of the State's employment problems, such as who is competent—as I argued last Friday—to say who should teach such subjects as anthropology in a State institution of higher learning.

Mr. President, this bill represents the greatest assault ever attempted in any legislative proposal upon the liberties of all the American people for the supposed benefit of only one segment of the American people.

It is said to be a bill to promote equality in employment. That is a hypocritical designation. The bill would destroy equality because it would place employers, both public and private, throughout the length and breadth of the land, if they employ as many as eight persons, under subjection to a government agency for the supposed benefit of only one segment of the American people. That would be exalting the privilege of this segment of the American people above the liberties of all of the American people.

Now, Mr. President, I yield such time as he may need to the distinguished Senator from Alabama (Mr. ALLEN).

Mr. ALLEN. Mr. President, I thank the distinguished Senator from North Carolina for yielding to me. I am honored that I have this opportunity to speak alongside the able and distinguished senior Senator from North Carolina (Mr. ERVIN), who is the greatest

constitutional authority in the Senate—and I say that without fear of contradiction—and one of the most renowned constitutional lawyers in the entire country.

Mr. President, I oppose the passage of S. 2515, not because I do not want to see equal employment opportunities for all our citizens, for every Member of the Senate, every fairminded person in the country, favors the concept of fair and equal opportunity by all our citizens to obtain employment and to earn a livelihood.

One would think, from hearing some of the debates in the Senate, that a large number of jobs or positions that are open for filling are being denied to people.

Let me point out that the bill does not create one single job or position of any sort, aside from the hundreds of Federal bureaucrats who would obtain jobs if the bill is passed.

The bill seeks to make the EEOC, the so-called Equal Employment Opportunity Commission, the court, the jury, and the prosecutor all rolled into one.

Some 7 years ago, originally, when the law was passed, and at the present time, the EEOC was an advisory and conciliation agency, one that sought to eliminate unfair labor practices by investigating charges, by considering them, by seeking to work out differences between the employer and the employee, but not to issue its own orders and not to be a prosecutor, jury, and judge.

But the concept of conciliation will take second rank behind the function of forced compliance with its order.

Is it fair for the same agency which receives the complaint, which investigates the complaint, which prefers charges based upon that complaint, to sit as the judge to determine the validity of the complaint?

Mr. President, I submit that it is not.

This bill is an arrogant effort to extend the scope of operation of the EEOC, to extend its coverage, to extend the powers of the EEOC. It will bring, for the first time, if the bill is passed, and if this amendment of the distinguished Senator from North Carolina and myself is not adopted, the despotic powers of the commission to every State, county, and city employee, every employee of a State, county, or city public agency, bringing in some 10 million additional citizens covered by this act.

Mr. President, I might say at this point that the bill does provide a somewhat different procedure as regards the county and city employees in negotiating and prosecuting unfair labor practices from what is provided for employment in business and industry.

They must have felt that the Senate and the House of Representatives would not go along with the same sort of rule for State, county, and city employees that there is for employees of business and industry. So, in effect, there have what we might call something on the order of a Dominick amendment for State, county, and city employees in that the forum for deciding the controversy with regard to the alleged unfair labor practices would not be just the Commission itself, but would be the Federal court.

That was what the Dominick amendment sought to do, to require the Commission to go into the Federal court to prosecute the alleged unfair labor practices. So, the proponents of the bill were wise enough to set up this procedure with regard to the State, county, and city employees. But they should not have any jurisdiction whatever. The Federal court should not. There should be a field of operation for the Federal Government, a field of operation for the State government, and, as my distinguished colleague, the distinguished senior Senator from North Carolina, has said, the Federal judge should not be the employment agency for the State.

So, Mr. President, it is very unwise in the judgment of the junior Senator from Alabama to seek to extend coverage of the EEOC to State, county, and city employees. The amendment now pending would eliminate the coverage of State, county, and city employees from the committee amendment. In other words, it would not change the law as it exists now at all. It would just say, "All right; you are seeking to lower the number of employees required for coverage by the EEOC, from 25 to eight; that in all small businesses you are moving over to the EEOC the power of the Justice Department to bring practice and pattern suits against employers where it is alleged that the employer is not just discriminating in isolated cases, but that it has a practice and pattern by which it engages in unfair employment practices, and transferring that power over to the EEOC."

It has broadened the coverage to include every single educational institution in the entire country. They are not now covered. The pending amendment does not seek to correct those abuses by which there are extensions of the power and jurisdiction of the EEOC over these other agencies. All it seeks to do is to prevent the EEOC from reaching out and grabbing control of State, county, and city governments and their employment practices.

It would leave the other matters to be settled by subsequent amendments. It does not withdraw any jurisdiction from the EEOC. It would merely prevent the EEOC from obtaining jurisdiction of the local governments.

Mr. President, this amendment, in the judgment of the junior Senator from Alabama, is the most important amendment yet remaining to be acted upon by the Senate. Possibly the most important amendment was the Dominick amendment, which finally failed by a vote of 48 to 46. That amendment would have required that the charges of unfair labor practices be presented and considered and adjudicated in the lower Federal court.

That was a most meritorious amendment. However, the Senate by a very narrow margin turned it down. I hope that this amendment, keeping the EEOC from taking over the local government, will be accepted. It will not make the bill acceptable to the junior Senator from Alabama and the senior Senator from North Carolina and many other Senators. However, it would be an improve-

ment if we were to just prevent the EEOC from running roughshod over the rights, the functions, and the obligations of local governments.

Mr. President, when Thomas Jefferson remarked that "eternal vigilance is the price of liberty," he had in mind a vigilance by free men against encroachments of governmental authority.

Mr. President, I am going to direct the remainder of my remarks not just to the amendment, but in opposition to the entire bill, S. 2515.

In adopting the restraints which the Bill of Rights imposed upon the National Government, the authors of the U.S. Constitution espoused the cause of individual liberty against arbitrary, governmental intrusion. In so doing, the patriots who survived the bitter ordeal of tyrannical rule exercised by King George III and his ministers declared to all the world that those who were to be governed knew best how they should be governed and that government should move only as consent flowing from the people.

The words of Jefferson are no less true today, particularly when we view the bill before us. It is an affront, to be sure, to the concept of the authors of the American Constitution and the idea of limited governmental authority which they sought to safeguard.

When legislation similar to S. 2515 was before the Senate during the last Congress, I stated that it was the most dangerous and indefensible measure presented in this Chamber since I came to the Senate. My views have not changed.

I have never personally witnessed such a bold and colossal grab for naked power which is represented by the combined impact of S. 2515. We are being asked to endorse a blank legislative check to vest in an agency of the Federal Government totalitarian authority over the employment practices and internal administration of free enterprise, labor unions, educational institutions, and State and local governments.

This bill is deliberately designed to deny basic rights of the American people and to grant special privileges to a few. Its punitive and oppressive provisions are patently directed at the destruction of the rights of the majority. Its far-reaching and drastic provisions will destroy and negate many more individual rights and liberties than they could possibly protect. If enacted, the measure would, in fact, cripple, and in some instances destroy, the very institutions which brought this great Nation into being and which helped to make it great.

Mr. President, I may say parenthetically, that the EEOC, in seeking to take over the employment practices of institutions of higher learning, is treading, it seems to the junior Senator from Alabama, on dangerous ground. It is hard for our institutions of higher learning to survive in the terrific cost crunch that is affecting our colleges and schools. Not only would the EEOC takeover colleges and universities; it would take over educational institutions of any other sort, whether they be private schools, church-supported schools, or even public grade schools, for that matter—any institu-



tion that would come within the phrase "educational institution."

Already, Federal courts are pretty well serving as employment agencies for teachers in Alabama and the rest of the South, because the Federal courts say whom the school boards may employ, whom they may not employ, and where they shall teach. So we do not need any further dictation by still another branch or department or agency or bureau of the Federal Government to exercise still more control over our educational institutions in Alabama and the rest of the South.

It has long been known that one of the things that accreditation boards and other agencies which have the power to accredit or to withdraw accreditation from institutions of higher learning, or of secondary schools, for that matter, consider very carefully is whether an institution is dominated by politics, whether politicians are in control of the educational institution or whether educators are in control of the institution. If we turn the employment practices of colleges and universities over to the EEOC and let it decide who shall teach what subject, let it decide who is going to be on the faculty of the institution of higher learning, what chance will an institution of that sort have of continuing its accreditation if it is so embroiled in control, not by educators at the school, but by a bureau of the U.S. Government? I feel that it is certainly a weakening of our higher institutions of learning to turn over their employment practices to the EEOC.

The distinguished Senator from North Carolina (Mr. ERVIN) was remarking that even as to religious schools, the only exemption given from the EEOC is the control of employment insofar as it affects the teaching of religious subjects and the carrying on of religious activities. The EEOC would not exempt the school from its employment practices with regard to persons who might teach history, languages, mathematics, or philosophy. All courses outside of religion would be under the control of the EEOC.

So a church-supported school which might desire to have only members of its particular denomination on the faculty to teach not only religion, but also all other subjects, will find that under the bill its employment practices with regard to teachers of subjects not having a direct connection with the promulgation and carrying on of its religious activities will be covered. Under the bill, the very foundation stones of our American system would be denied. The proposed legislation is a direct assault upon the free enterprise system.

The number of employees that would be required to bring an enterprise, a business, or an office, for that matter, under the provisions of EEOC is reduced from 25 to eight. Many small businesses today are having a time keeping their doors open for the purpose of carrying on their business. Competition from large corporations, governmental redtape, investigations, and heavy taxes are forcing many small businesses to close their doors. All of this combines to make it very difficult, indeed, for a small business to remain in business.

Under the provisions of the bill, if a man employs as few as eight persons, he is covered by every single one of the outrageous provisions of the bill. The bill does not merely require large corporations to maintain fair employment practices. It requires that coverage be extended to small businesses, as well. There will be harassment, there will be investigations, charges will be filed against many thousands of small businesses; and I predict that literally hundreds of such businesses will be crowded to the wall. I have in mind an incident that occurred in my State of Alabama. A small industry, employing some 250 persons, is barely making ends meet. A proceeding against it is pending right now before the EEOC. In talking with some of the officials of the company, I was told within the last week that it looked like they were not going to be able to carry on against all of the attacks by the Federal bureaucracy, including, in particular, the EEOC.

Mr. President, if we give the EEOC the power not only to point out these alleged practices to an employer but to sit in judgment on those charges and issues orders of cease and desist, we are going to find that this company, in all likelihood—a small company employing 250 people—is not going to be able to survive.

While I was home during the Christmas recess a man called me from another section of my State, and he was registering his protest against some of the trends in Washington. He said, "Senator ALLEN, we are getting to the point where we are afraid of our Government." Mr. President, that sums up the feeling of many thousands of people throughout this country. They are afraid of their Government.

Governments used to protect the rights of the people, but this man, being buffeted about by redtape, by heavy taxes, by government inquisition, is just cringing, wondering what the Government is going to do against him next. I hated to tell him that they are going to extend the powers of the EEOC against him and his small business. I just did not have the heart to tell him what was in store for him. That is what is worrying the people, Mr. President.

We have so many problems facing this country—the dock strike on the west coast, the war in Vietnam and Indochina—and we have been talking here for some 10 days on this pernicious bill.

The EEOC has managed to get along without the cease and desist authority for 7 years. Why cannot it limp along without that authority now?

It is said that without this bill, there will be 32,000 complaints filed with the EEOC in the year which will end June 30, and it is estimated that for the next year starting July 1 they will have 45,000 complaints. They must be doing some good in calling these matters to the attention of employers. Why cannot the EEOC limp along like it has done for 7 years without this added authority, and let the Senate get on to more important business?

I dare say when the head of the EEOC appeared before the Appropriations Committees of the House and the Senate he did not say, "Why, Mr. Chairman,

we are not accomplishing anything over in the EEOC." He said, "We are doing a good job," I dare say.

Let us leave the EEOC where we find it. Let us not circumscribe its powers. Let us not curtail its powers. Let us not make it harder for them to act. Let us appropriate all the money they can properly use. But, Mr. President, let us not extend their power over 10 million local government employees. Let us not extend their power over every educational institution in the country. Let us not extend their power over every employer of as many as eight persons. Let us not give them the power to sit as prosecutor, judge, and jury, and sit in judgment after they have already decided the case, or they would not have bothered to prefer the charges. That would show they had already decided the matter, or they would not have preferred the charge. Why let them sit in judgment on a charge that they themselves preferred?

The measure contains a self-starter provision vesting in the Equal Employment Opportunity Commission authority to initiate investigations and inquiries either on its own motion or whenever an anonymous person or organization merely requests the filing of a charge that an unlawful employment practice has occurred.

There is no requirement of "reasonable cause" as a condition precedent to the filing of a charge; therefore, the Commission is given carte blanche authority to conduct roving inquiries into the private books and records of a company, a labor union, an educational institution, or State and local governments, regardless of whether there is any logical pre-existing cause for believing there has been a violation of the law. S. 2515 is, in essence, a civil "no knock" bill.

What the people are afraid of is the Government coming in and harassing him by checking over a man's books and checking on him. That is one fear they have of the actions of their Government.

Right at that point, Mr. President, this bill has a provision in it that is one of the most amazing provisions present in any bill. We have had in the United States for 100 years a law that provides the Federal Government, the agencies and employees of the Federal Government, cannot accept the services for the Federal Government of volunteer or uncompensated employees. In other words, a man shows up at the Justice Department and says, "Look, I want to volunteer my services and work in the Department of Justice." Well, the law is that such a person's services cannot be used by the Justice Department. A man shows up at the Internal Revenue Service, the Treasury Department, and says, "I want to volunteer my services and work for the Government. I do not want to be paid anything. I am just interested in carrying on the work of the Federal Government." Under the law, such a person cannot have his services used. He has got to become a Federal employee. He has got to take a civil service examination in many cases. He has to be checked out by this Government. He has got to be needed in the department and employed as a Federal employee.

But the bill that is before us now

would take the EEOC out from under this law. Other departments are covered by it. I have not been cited to any other agency that is not covered by it. It is a law that has been on the books, apparently, for 100 years. We have not had any other bill, since I have been here, seeking to take any bureau or agency out from under this law. But we find it now in this EEOC bill. It provides that the EEOC can avail itself of volunteer or uncompensated employees. Is that right, Mr. President?

It was brought out here on the floor that at present the EEOC has some 1,000 employees. It is anticipated that in the next year or so, it is going up to 2,000. Well, there is no limit on the number of volunteer or uncompensated employees that they could get.

Already, even before they get the authority, the distinguished manager of the bill, the Senator from New Jersey (Mr. WILLIAMS) stated that they have some 300 volunteer employees. He stated that they were used largely in public relations work. But I submit, Mr. President, there is nothing anywhere in this measure that would prevent 500, 1,000, or 5,000 people, with prejudice, with bias, from coming forward and saying: "I am so definitely committed to this concept of equal and fair employment opportunity that I want to volunteer my services, so that I can go out over the country and check employers and see if they are engaged in unfair employment practices."

Mr. President, that is what this bill would allow, and I feel that it should be pointed out again and again. We sought to knock that provision out, but the Senate in its wisdom saw fit to defeat the amendment.

As I have stated, Mr. President, the amendment at the desk that is the pending business would not cure all of these other defects that I am seeking to point out, but it would prevent the EEOC from taking over State and local governments, and for that reason it ought to be adopted by the Senate.

Under the inquiries and investigations directed by the bill, business would be vexed and harassed to the point where orderly plant management and efficient production could become impossible.

The bill brings within its orbit every person in the United States who hires eight or more employees. Thus, the small businessmen—already overburdened—would encounter new regulations, investigations, hearings, and appeals far beyond his time, his energy, or his finances.

The bill even goes farther. It says that the Commission can act as the complainant's lawyer and prepare his testimony for him on the very case which will be presented to and ruled upon by the Commission itself.

What about a little fair play there, Mr. President? That is denied here. This is consistent with the entire one-sided and dictatorial philosophy of S. 2515. Its potentialities have seeds of malignancy which it would be folly to ignore.

Mr. President, S. 2515 is a delusion designed to create a false sense of security in that it does not create one new job except those in Federal bureaucracy. I repeat, other than the additional army

of bureaucrats that would be set up, this bill does not create one new job in the private sector.

Yet, the bill is presented to us when we are confronted with our most serious economic crisis in four decades.

We have the first peacetime wage-price freeze in our history. We are constantly faced with what some have called the "twin sixes"—6-percent unemployment and 6-percent increase in inflation per annum. The growth in our gross national product has been alarmingly small and capital goods expenditures have hardly grown at all. All of this has been compounded by our serious adverse balance of trade and the accompanying crisis in the position of our dollar abroad.

I am sure all will agree that there is an urgent, if not crying, need to devise means to bring an early end to economic stagnation in our country, to curb inflation, and to reduce unemployment levels by putting idle capacity to work and by creating new capacity.

But at the very time production is so badly needed to restore sound and vigorous economic conditions, this bill would create fear and suspicion, friction and division in the business houses, plants, and factories of America.

If this bill should become law, Mr. President, it would give license for a bureaucrat, clothed with all the power of the Federal Government, to come out of Washington and to walk into a business or labor union hiring hall and to dictate to the employer or the business agent whom he could employ and whom he could not employ.

Mr. President, touching again on this arm of volunteer employees: Those people would have to eat, I suppose, even if they were volunteering their services. Somebody is going to be paying them, we can rest assured of that. They are not going to volunteer their services unless somebody is paying the way. Mr. President, to allow this army of volunteer employees, with the indicia, the power, and the authority of the Federal Government behind them, is something we ought not to do. What check would be made about their criminal background, if any? What check would be made about their fitness to work in a delicate position of this sort? What check would be made on their general ability? What check would be made on their bias or prejudice?

If for no other reason than that it has this vicious provision, the bill should be defeated.

There is just one other step which could in any way be worse than the step I have just described, and that would be for one of those bureaucrats to go into a man's home—his castle—and try to tell him whom he should have around his dining room table or his fireside.

But this is not all. The bill could also punish first and prove the offense subsequently. It would permit a Federal judge—a single judge acting without a hearing and without any showing by the Government of irreparable injury—to issue a temporary restraining order against the respondent for an alleged unlawful employment practice.

Mr. President, that would be an alter-

nate remedy they would have. That would be in addition to the remedy they have of sitting as prosecutor, judge, and jury. In addition to that, if they could not move rapidly enough by that method, if they have too large a backlog of cases, mark my words, Mr. President, we are going to have the EEOC coming in here and saying, "With this mass of added work we have got, we do not need just 2,000 employees, we need 4,000, 6,000, or 8,000." Mark my words.

Mr. President, with regard to the advisability of leaving all this power in the EEOC, or requiring it to go into Federal court to have the complaints adjudicated, I might remark that there are 398 Federal district judges in the country, and by dividing this workload up among 398 Federal judges, it would seem to me to be a better way of handling it than to have one Commission here in Washington, with five board members, handle all of these complaints from all over the United States.

But, in addition to the right to decide the matter itself, when it gets to it, and running ahead of the backlog of cases, it can go into the Federal court. This is an alternate and additional remedy that the EEOC would have—to get the Federal judge to issue a temporary restraining order against the respondent for an alleged unlawful employment practice. We thus see a reversal of the age-old maxim that a man is presumed to be innocent until he is proven guilty.

All they have to do is to go into Federal court and have the judge issue a restraining order preventing the employers from engaging in an alleged unlawful employment practice, without ever deciding the matter. The order will be issued, and then they will wait until they have time to hear it, at the bottom of the docket, and all that time they would be restrained from doing what good business judgment required them to do.

The temporary restraining order could be followed by a preliminary injunction. The preliminary injunction could require affirmative action on the part of the employer, such as the reinstatement of former employees and the hiring of new employees with back pay.

Under these provisions of the bill, it would be possible, Mr. President, for an American to be imprisoned if he disagreed with the order of a Federal judge, without the benefit of trial by jury.

No wonder the powers sought under this bill have been compared with the English court of the star chamber.

Frankly, I am somewhat surprised to see that some of the people who for many decades were subjected to the injustices of the injunctive process prior to the passage of the Norris-La Guardia Act in 1932 are among those who now come before Congress and clamor for a return to the dark days of the past.

Mr. ERVIN. Mr. President, will the Senator yield for a question on that point?

Mr. ALLEN. I yield.

Mr. ERVIN. The Norris-La Guardia Act was enacted at the behest of labor to free labor from what was called "government by injunction."

Mr. ALLEN. That is correct.



Mr. ERVIN. And the Norris-LaGuardia Act is still in force.

Mr. ALLEN. Oh, yes.

Mr. ERVIN. Under its terms, a man who suffers a genuine wrong which only an injunction can prevent is denied the right to obtain an injunction to protect his rights and prevent that wrong, is he not?

Mr. ALLEN. That is correct.

Mr. ERVIN. Notwithstanding that labor has sought and obtained for itself protection against government by injunction, labor joins the organizations which have appointed themselves guardians of the minority race in demanding the passage of a bill which places every other person within the borders of the 50 States, employing as many as 8 people, under the tyranny of government by injunction.

Mr. ALLEN. That is correct. It is rather inconsistent.

Mr. ERVIN. It would seem that the freedoms which they would cherish for themselves, they would wish the other people to enjoy.

Mr. ALLEN. Yes. I thank the distinguished Senator from North Carolina for the point he has raised and commented upon.

Samuel Gompers, the pioneer and towering leader in the American labor movement, declared in 1911:

Modern American Courts assume the right to issue injunctions interfering with the personal rights of men in exercising free speech, free press, peaceable assemblage, and in their personal relationship with each other. The right of free speech, free press, peaceable assemblage are specifically guaranteed by the Constitution. They are the fundamental safeguards of a free people, which neither a Court, king, nor cajolery should be permitted to destroy. The personal relationship between man and man comes clearly within the jurisdiction of the law Courts and has no place in the Courts of equity unless on the assumption of the Court that man is property, an assumption repugnant to the sense of all civilized communities and specifically forbidden by the 13th Amendment to the Constitution of the United States. Our contention is that when an injunction is issued in a labor dispute, irreparable injury is done to the parties involved and to the cause of labor, which no court can compute and no bond can indemnify.

Mr. President, I am sure there are few among us who will not say that perhaps the most shameful chapters of our judiciary history were written by judges in labor relations cases prior to the enactment of the Norris-La Guardia Act. Indeed, the susceptibility to abuse by judges of the injunctive process is clearly illustrated by the example of the years prior to 1932 when judges, acting without juries, in an almost unbroken line of cases, used the injunction to frustrate the efforts of labor to secure fair wages and safe working conditions.

It would be well for those representing labor who advocate S. 2515 to pause and ponder the wise words of Samuel Gompers and to thoroughly review the cases involving labor disputes prior to 1932.

Mr. President, this bill would provide a different type of injunction. It would

provide an injunction against the employer.

The PRESIDING OFFICER. All time of the proponents of the amendment has now expired, and the committee chairman has all the remaining time.

Mr. ALLEN. I appreciate the Chair's indulgence, and I will conclude my remarks on the bill at a later time.

Mr. WILLIAMS. Mr. President, first, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. WILLIAMS. The remaining time before the vote that is fixed for 2 p.m. is all to be allocated by the manager of the bill?

The PRESIDING OFFICER. That is correct.

Mr. WILLIAMS. And the vote is at a time certain—2 p.m. Is that correct?

The PRESIDING OFFICER. That is correct—under the order.

Mr. WILLIAMS. It is my understanding that the time for the quorum call that started the proceedings was equally divided between the proponents of the amendment and the manager of the bill.

The PRESIDING OFFICER. That is correct.

Mr. WILLIAMS. There will be another quorum call shortly. I will not ask for equal division.

Mr. ALLEN. We have no time to contribute.

Mr. WILLIAMS. Following a statement, I will be happy to work out an equity of time if not many speakers demand time from the manager of the bill. In the meantime, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. WILLIAMS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. GAMBRELL). Without objection, it is so ordered.

Mr. WILLIAMS. Mr. President, I yield myself such time as I may need.

Mr. President, one of the most vital provisions of S. 2515 is the part which would amend section 701 to broaden the jurisdictional coverage of title VII of the Civil Rights Act of 1964 to include State and local government employees. Besides including State and local government employees, S. 2515 also creates a special enforcement mechanism for handling complaints against State and local government units.

At this time in our country's history, it should be beyond question that the employees of State and local governments are entitled to the same benefits and protections in equal employment as are employees in the private sector. In fact, the well-documented and widespread discrimination among State and local government employees is a shameful condition that should be eliminated wherever and whenever possible.

In a report released in 1969 by the U.S. Commission on Civil Rights, "For All the People—By All the People," that Commission concluded that:

\*\*\* State and local governments have failed to fulfill their obligation to assure equal job opportunity \*\*\* Not only do State and local governments consciously and overtly discriminate in hiring and promoting minority group members, but they do not foster positive programs to deal with discriminatory treatment on the job.

The report's findings indicate that the existence of discrimination is perpetuated by both institutional and overt discriminatory practices, and that past discriminatory practices are maintained through de facto segregated job ladders, invalid selection techniques, and stereotype misconceptions by supervisors regarding minority group capabilities. The study also indicates that employment discrimination in State and local governments is more pervasive than in the private sector.

In another report issued by the U.S. Commission on Civil Rights in 1970, "Mexican-Americans and the administration of Justice in the southwest," the Commission found that in the five Southwestern States with the highest concentration of Spanish-speaking Americans, their representation in the vital area of law enforcement was significantly disproportionate to their demographic distribution. The report shows that in these five Southwestern States, Spanish-speaking Americans, who constitute approximately 12 percent of the population account for only 5.2 percent of police officers and 6.1 percent of civilian employees associated with law enforcement agencies.

Mr. President, I ask unanimous consent that excerpts of these two reports be printed in the RECORD at the conclusion of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 1.)

Mr. WILLIAMS. Mr. President, this failure of State and local governmental agencies to accord equal employment opportunities is particularly distressing in light of the importance that these agencies play in the daily lives of the average citizen. From local law enforcement to social services, each citizen in a community is in constant contact with many local agencies. The importance of equal opportunity in these agencies is, therefore, self-evident.

In our democratic society, participatory government is a cornerstone of good government. Discrimination by government, therefore, serves a doubly destructive purpose. The exclusion of minorities from effective participation in the bureaucracy not only promotes ignorance of minority problems in that particular community but also creates mistrust, alienation, and all too often hostility toward the entire process of government. The public sector should lead the way in the fight to insure equal employment opportunity for all in our society.

The Federal Government's interest in State and local government operations cannot be underestimated. There are approximately 10 million employees of State and local political subdivisions. The Federal Government alone will distribute more than \$43 billion of its tax revenues to these levels in the next year.

Mr. President, in order to understand the pervasive influence of the Federal Government on the State finances, I ask unanimous consent to have printed at the conclusion of my remarks a summary of expenditures from the current Federal budget for fiscal year 1973.

The PRESIDING OFFICER (Mr. CRANSTON). Without objection, it is so ordered.

(See exhibit 2.)

Mr. WILLIAMS. Mr. President, it is clear that with the expenditure of such sums comes the responsibility of making sure that the distribution and use of the funds is without discrimination. The failure to have adequate minority representation in those agencies of Government responsible for expending those funds is an element of this discrimination.

S. 2515 seeks to establish a fair and effective means for bringing about this result, within the boundaries established by our Federal system. At present, the more than 10 million State and local government employees, constitute the largest class of persons exempt from the operation of Federal nondiscrimination laws. By amending the present section 701 to include State and local governmental units within the definition of an "employer" under title VII, all employees of these units would have access to the remedies proposed in the bill.

In addition to the moral issues raised, the Constitution is imperative in its prohibition of discrimination by State and local governments. The 14th amendment guarantees equal treatment of all citizens by States and their political subdivisions, and the Supreme Court has reinforced this directive by holding that State action which denies equal protection of the laws to any person is in violation of the 14th amendment. It is thus clear that the guarantee of equal protection must extend to discriminatory practices of State and local governments, where such discrimination is based upon race, color, religion, sex or national origin.

Through use of the enabling clause of the 14th amendment, the promise of equal protection can become a reality. The last sentence of the 14th amendment enables Congress to enforce the amendment's guarantees by appropriate legislation.

The inclusion of State and local government employees within the jurisdiction of title VII protections will fulfill the congressional duty to enact the "appropriate legislation" to ensure that all citizens are treated equally in this country.

S. 2515 provides a legislative program for fulfilling this duty through an extension of coverage and a special procedure for enforcement. In those cases involving a respondent which is a "government, governmental agency, or political subdivision," the Equal Employment Opportunity Commission is given the authority to attempt to secure voluntary compliance under its normal procedures, including deferral of the charge to the appropriate State fair employment practice agency, if one exists. I might note at this point that at least 33 States have provisions in their antidiscrimination

laws that provide enforceable coverage to State and local government workers.

Mr. President, I ask unanimous consent to have printed at the conclusion of my remarks a list of such State laws.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 3.)

Mr. WILLIAMS. Mr. President, if the Commission is unable to secure a conciliation agreement it shall refer the case to the Attorney General for further action, specifically for filing of a civil action against the respondent in the appropriate U.S. district court. This is the authority that was requested by the President in his state of the Union message on January 20 of this year. Further, the bill gives the aggrieved State or local government employee or employees the right to intervene in such civil actions. By placing the full weight of the U.S. Attorney General and the authority of the U.S. district courts behind equal employment opportunity in State and local governments, the machinery has been provided to insure equal rights. In short, this special enforcement procedure, when State and local governments are respondents, provides the necessary power to achieve results without the needless friction that might be created by a Federal executive agency issuing orders to sovereign States and their localities. To underscore the importance of this provision in the bill, I would like to offer for inclusion in the record, a copy of a resolution from the International Association of Official Human Rights Agencies, endorsing the bill in its entirety. This organization is the group that represents the State agencies charged with administering State equal employment laws.

The committee has gone to great lengths to create a fair and equitable enforcement program that is capable of achieving the desired results. We have done so with the conviction that such a program is essential to the viability of State and local governmental units. This conviction is based in large part on the very practical consideration that employment discrimination at the State and local government level reflects very unfavorably upon the ability of those governmental units to deal equitably in their contracts with those groups against whom they discriminate in employment. State and local government employees are in constant contact with the citizens in their jurisdiction. If they are to carry out their jobs with any success whatever, public confidence in their impartiality is vital. This confidence cannot help but be shaken by the widespread existence of employment discrimination in the public sector.

Added importance must be placed upon this latter point if revenue sharing and welfare reform are ever going to maximize their potential. Under both programs, State and local government employees make many important policy and administrative decisions. If these decisions are to be responsive to the needs and desires of the people, it is essential that those making the decisions be truly representative of all segments of the population. Only if such representation prevails can we hope to inspire the con-

fidence in our governmental institutions vital to the success of revenue sharing and welfare reform.

One other practical consideration bears noting. Whenever the State or locality is engaging in activities also engaged in by private parties, the potential for labor strife is increased where enforcement of antidiscrimination laws is available in the private sector but not available for similar employees in the public sector.

This potential, with its concomitant effect upon interstate commerce, gives ample reason for imposition of Federal equal employment standards on State and local governmental units. In fact, just such an argument was persuasive to the U.S. Supreme Court in the case of Maryland against Wirtz, regarding extension of the Fair Labor Standards Act to certain classes of public employees. The full impact of this case is to suggest that there are proper situations and proper means to impose Federal standards upon State and local governments. I would suggest that the insurance of equal employment opportunity is just such a situation. The means employed by this bill authorize minimal contacts between the Federal Government and State and local governments; public employers will be able to hire whomever they please, so long as it is done in a nondiscriminatory manner.

In summation, I believe that the moral, legal, and practical considerations have for some time demanded that State and local governmental units meet their responsibilities to insure equal employment opportunity under the law. S. 2515 is a means to that end.

Mr. President, I ask unanimous consent that all the items I have requested to have printed in the RECORD be printed at this point in the RECORD.

The PRESIDING OFFICER. Without objection, it is so ordered.

The material was ordered to be printed in the RECORD as follows:

#### EXHIBIT 1

FOR ALL THE PEOPLE . . . BY ALL THE PEOPLE—A REPORT ON EQUAL OPPORTUNITY IN STATE AND LOCAL GOVERNMENT EMPLOYMENT  
(A report of the U.S. Commission on Civil Rights, 1969)

#### FINDINGS

##### Background of the problem

1. In recent years State and local government employment has grown rapidly in total numbers, in the range of services provided, and in the occupational categories required to perform these services. Because they are relatively large institutions, have broad potential, and need a variety of talent, State and local governments can provide an important source of jobs for members of minority groups.

2. State and local governments are the largest single group of employers in the United States for which no comprehensive information is available on the racial and ethnic composition of their work force. These governments also are the only large group of employers in the Nation whose racial employment practices are almost entirely exempt from any Federal nondiscrimination requirements.

##### Extent of equal opportunity

3. Minority group members are denied equal access to State and local government jobs.

(a) Negroes, in general, have better suc-



cess in obtaining jobs with central city governments than they do in State, county, or suburban jurisdictions and are more successful in obtaining jobs in the North than in the South.

(b) Negroes are noticeably absent from managerial and professional jobs even in those jurisdictions where they are substantially employed in the aggregate. In only two central cities, out of a total of eight surveyed, did the overall number of black employees in white-collar jobs reflect the population patterns of the cities.

(c) Access to white-collar jobs in some departments is more readily available to minority group members than in others. Negroes are most likely to hold professional, managerial, and clerical jobs in financial administration and general control.

(d) Negroes hold the large majority of laborer and general service worker jobs—jobs which are characterized by few entry skills, relatively low pay, and limited opportunity for advancement.

(e) Spanish Americans hold a substantial number of State and local jobs in the Houston area governments but hold proportionately fewer State and local jobs in the San Francisco-Oakland area governments. They have been more successful in obtaining higher level jobs than Negroes but less successful than majority group members.

(f) Oriental Americans are more successful in obtaining State and county jobs than central city jobs. Although the distribution of Oriental Americans in professional and clerical occupations is equal to or better than that of the majority group, Oriental Americans have not obtained full access to managerial positions.

#### Barriers to equal opportunity

4. State and local government employment opportunities for minorities are restricted by overt discrimination in personnel actions and hiring decisions, a lack of positive action by governments to redress the consequences of past discrimination, and discriminatory and biased treatment on the job.

(a) A merit system of public personnel administration does not eliminate discrimination against members of minorities. It proclaims objectivity, but does not assure it. Discrimination occurs both in recruiting and in selection among final applicants.

(b) Governments have undertaken few efforts to eliminate recruitment and selection devices which are arbitrary, unrelated to job performance, and result in unequal treatment of minorities. Further, governments have failed to undertake programs of positive action to recruit minority applicants and to help them overcome barriers created by current selection procedures.

(c) Promotional opportunities are not made available to minorities on an equal basis by governments that rely on criteria unrelated to job performance and on discriminatory supervisory ratings.

#### Barriers in police and fire departments

5. Barriers to equal employment are greater in police and fire departments than in any other area of State and local government.

(a) Negroes are not employed in significant numbers in police and fire departments.

(1) Although 27 percent of all central city jobs surveyed are in police and fire departments, only 7 percent of the black employees in central cities are policemen and firemen.

(2) Fire departments in most of the cities surveyed employ even fewer uniformed personnel than do the police departments.

(3) Negro policemen and firemen hold almost no positions in the officer ranks.

(4) State police forces employ very few Negro policemen. Four of the States employed no Negro policemen in the metropolitan areas surveyed.

(b) Spanish Americans are employed as

policemen and firemen on the average less than half as frequently as Anglos.

(c) Police and fire departments have discouraged minority persons from joining their ranks by failure to recruit effectively and by permitting unequal treatment on the job including unequal promotional opportunities, discriminatory job assignments, and harassment by fellow workers. Minority group hostility to police and fire departments also deters recruitment, and this has not been overcome by the departments.

#### Impact of the Federal Government

6. The Federal Government has established no effective Federal requirements for equal opportunity in State and local government employment, and no effective standards and guidelines for affirmative action to correct past discriminatory practices and increase opportunities for minority groups. The limited efforts to do so have not been successful.

(a) The nondiscrimination clause, included in the Federal merit standards since 1963, applies only to a small fraction of State and local government employment and has had no discernible effect in increasing employment opportunities for minority groups in State and local government. Present enforcement of the clause provides neither effective protection, nor effective avenues of redress to members of minority groups who encounter discrimination. The Office of State Merit Systems has provided no guidelines for State action either to eliminate discrimination or to increase opportunities.

(b) Federal housing agencies have made virtually no efforts to enforce the nondiscrimination clause included since the 1950's in their contracts with local public housing and urban renewal agencies. Neither have they assured that affirmative action has been taken to increase opportunities for minorities.

#### RECOMMENDATIONS

##### I. Action needed to achieve equality in State and local government employment

A. Every State and local government should adopt and maintain a program of employment equality adequate to fulfill its obligation under the equal protection clause of the 14th amendment to assure—

1. that current employment practices are nondiscriminatory; and

2. that the continuing effects of past discriminatory practices are undone.

This report has found that State and local government employment is pervaded by a wide range of discriminatory practices. These practices violate the requirements of the equal protection clause of the 14th amendment and accordingly must be eliminated. Unconstitutional practices include not only those which are purposefully discriminatory, but also those which have the effect of creating or reinforcing barriers to equal employment opportunity. Such barriers will persist until affirmative action is taken to overcome them. For this reason, a public employer can assure that its employment practices are nondiscriminatory only if it maintains a comprehensive, well-planned program of equal employment opportunity.

The following are examples of discriminatory barriers to equality in public employment which may arise in the absence of an effective program of employment equality. Evidence of the effects of many of these discriminatory barriers may be found in the pages of this report.

a. Recruitment through schools or colleges with a predominantly non-minority makeup discriminates against minorities wherever comparable recruitment is not done at predominantly minority institutions.

b. Unless special precautions are taken, use of recruitment sources such as private employment agencies, informal community contacts, or other sources, may incorporate into the employer's recruitment system the

discriminatory practices or prejudices of the sources used.

c. Whenever a work force, or significant levels or components of it, is predominantly nonminority in makeup, recruitment practices which rely upon employee "word-of-mouth" contact for new applicants may discriminatorily perpetuate the majority predominance.

d. Unless special precautions are taken, a past history of overt discrimination may continue to deter minority applications for employment or advancement, particularly with respect to positions which have not traditionally been held by minority persons. Such a history also may signal to outside employment sources that the employer does not welcome minority referrals, at least for nontraditional positions.

e. Unless special precautions are taken, harassment or unfair treatment by nonminority supervisors or coworkers, or other discrimination not countenanced by the employer, may discourage minority applications for employment or advancement.

f. Where minority persons have less access than nonminority persons to informal networks of employment information—such as through present employees or officials—relating to such matters as available openings, hiring procedure, or the basis for rejection or other action taken with respect to applications, this may impede access of minorities to available opportunities.

g. Since minority persons, competing for positions at the entry level or elsewhere in the work force, frequently may have limited education or job experience, the employer may unfairly penalize minority applicants wherever he imposes qualifications not likely to be possessed by minority applicants and not substantially related to the needs of the job.

h. Selection standards may be applied reasonably to nonminority applicants, but unfair if extended on the same terms to minority persons. For example, the level of academic achievement—such as the level of verbal skill—may be one measure of an applicant's native ability, but when applied on the same basis to a group whose schools afford a markedly inferior education, it may cease to be a fair and equal measure of ability.

In the case of many State and local governments, such discriminatory barriers, or other discriminatory practices, have given rise to patterns of minority underutilization, including concentration of minority employees at lower job levels.

Such discriminatory patterns of minority underutilization themselves give rise to denial of the 14th amendment right to equal protection of the laws. Such patterns, for example, mean unequal enjoyment by minorities of those public funds which are paid as salaries to public employees. Also, since public employees shape the conduct of their government, discriminatorily created underutilization of minorities in public employment weakens the ability of government to reflect equally the interests of all segments of the governed. Finally, as shown in this report, discriminatorily created patterns of minority underutilization tend to be self-reinforcing and self-perpetuating; for this reason such patterns themselves constitute vehicles of discrimination which must be corrected.

Accordingly, whenever in public employment discriminatorily created patterns persist, the Constitution requires that they be remedied by measures aimed at giving the work force the shape it presently would have were it not for such past discrimination. It should be recognized that such measures are not a "preference" but rather a restoration of equality; one can see inequality in such remedies only by being blind to the past injustices which they cure.

B. Though the programs of employment equality adopted by individual State and

local governments will vary widely with the particular needs and problems of each, all such programs should include the following three elements:

1. An evaluation of employment practices and employee utilization patterns adequate to show the nature and extent of barriers to equal opportunity for minorities and of any discriminatory underutilization of minorities.

The first step in the program of employment equality is an assessment of needs and problems. This requires a thorough evaluation by the State or local government of the employment practices of each of its constituent agencies, to determine the effect of its practices on utilization of minorities. Though the principal aim is to identify barriers to equal opportunity, the evaluation also should make note, for continuation and strengthening, of those policies which have the positive effect of overcoming such barriers.

In order to make this assessment, and to identify patterns of minority underutilization, the State or local government will need to gather and review comprehensive information, by nonminority-minority classification, on employee distribution among the various agency components, job levels and locations, as well as data on referrals, applications, acceptances, promotions, and other personnel action.

This initial evaluation should culminate in a written analysis of discriminatory barriers to equal employment opportunity in the State or local government, as well as an analysis of any patterns of minority underutilization which have resulted from the operation of such discriminatory barriers.

2. Preparation and implementation of a program of action which is calculated—

(a) to eliminate or neutralize all discriminatory barriers to equal employment opportunity; and

(b) to undo any patterns of minority underutilization which have been brought about by past discrimination.

Having evaluated employment practices and assessed patterns of minority underutilization, the next step is to formulate a program which will overcome barriers to equal employment opportunity and, in addition, will bring about whatever changes in minority utilization are necessary to undo the effects of past discrimination. Where patterns of minority utilization are to be changed, the program should include specific goals, or estimates, to be achieved within a specified period of time.

Even in those cases where evaluation has disclosed that the present employment practices of a government or of one of its component agencies fully overcome all barriers to equal employment opportunity and that no pattern of discriminatorily created underutilization of minorities is present, formulation of relevant practices into a program is still desirable in order to help assure that nondiscriminatory practices continue to be followed.

Affirmative programs should be developed in a form which makes clear the obligations of each component agency of the government. Programs should be put in writing and made available upon request to public employees, minority leaders, and others with a legitimate interest in the status of minorities in public employment. Staff responsibilities for implementing the program should be allocated clearly, and employees informed of the program and of their rights, duties, and obligations under it.

The adoption of affirmative programs by State and local governments may be subject to limitations imposed by statute, State constitution, city charter, or the like, which inflexibly mandate that certain employment policies be followed. Similar limitations may be created by the amount or terms

of budgetary allocations made to governments or to their component agencies.

Questions of the right or duty of individual public agencies or officials faced with such restrictions can be resolved only on a case by case basis. However, inherent in the supremacy clause of the Constitution is the requirement that State and local governments must alter any laws, regulations, or practices which stand in the way of achieving the equality in public employment which is required by the equal protection clause of the 14th amendment.

There follows a sampling of the kind of actions which State and local governments will need to include in programs of employment equality. Use to some degree of most of these techniques will be necessary to assure that all barriers to equal employment opportunity are eliminated. In addition, public employers with discriminatorily created patterns of employee utilization should use the techniques to a degree sufficient to undo the effects of past discrimination.

#### Recruitment

a. Maintain consistent continuing communication with the State employment service and schools, colleges, community agencies, community leaders, minority organizations, publications, and other sources affording contact with potential minority applicants in the job area.

b. Thoroughly and continually inform sources affording contact with potential minority applicants about current openings, about the employer's recruiting and selection procedures and about the positions (together with personnel specifications) for which applications may be made.

c. Inform all applicant sources, both generally and each time a specific request for referral is made, that minority applicants are welcome and that discrimination in referrals will not be tolerated.

d. Fully inform each applicant of the basis for all action taken on his or her application. Supply in detail the basis for rejection, including evaluation of tests and interviews. Suggest to rejected minority applicants possible methods for remedying disqualifying factors.

e. Make data on minority employment status available on request to employees, to minority leaders in the job area, and to others with a legitimate interest in non-discrimination by the employer.

f. Invite minority persons to visit State and local government facilities; explain employment opportunities and the equal opportunity program in effect.

g. Have minority persons among those who deal with persons applying for employment, with clientele, or with other members of the public, in order to communicate the fact of minority equal opportunity.

h. Coordinate the employment and placement activities of the various components of the State or local government, at least for the purpose of facilitating minority applications or requests for transfer. To the same end, maintain minority applications or transfer requests on an active basis for a substantial period of time.

i. Participate in Neighborhood Youth Corps, New Careers, other Federal job training or employment programs, or similar State or local programs. In connection with such programs, or otherwise, make a particular effort to structure work in a way which gives rise to jobs which are suitable for minority persons who are available for employment.

j. Independent of outside training programs, institute on-the-job training or work-study plans, in which persons are employed part-time while studying or otherwise seeking to satisfy employment requirements; this may include summertime employment for persons in school.

k. Solicit cooperation of academic and

vocational schools to establish curricula which will provide minority candidates with the skills and education necessary to fulfill manpower requirements.

#### Selection

a. Take steps to assure that tests used for the purpose of selecting or placing applicants are demonstrated to be valid in forecasting the job performance of minority applicants.

b. Pending validation, discontinue or modify the use of tests, minimum academic achievement, or other criteria which screen out a disproportionate number of minority applicants.

c. Do not in all cases give preference to nonminority applicants on the basis of higher performance on tests or other hiring criteria, as long as it is apparent that competing minority applicants, especially where they have waiting list seniority, are qualified to do the job.

d. Where tests are used, employ them as a guide to placement rather than as the determinant of whether an applicant is to be hired.

e. Make increased use of tests comprised of a sampling of work to be performed on the job.

f. Make increased use of the probationary period, affording an opportunity for on-the-job training and enabling the applicant's ability to be judged on the basis of job performance.

#### Placement and Promotion

a. Make available to minority applicants and to present minority employees a complete description of positions for which they may be eligible to apply.

b. In the initial placement of said newly hired employees, wherever possible place minority employees in positions or areas with low minority representation.

c. Broaden job experience and facilitate transfers of minority employees by creating a system of temporary work experience assignments in other positions or areas of work. Such a system may include temporary assignment between jurisdictions, such as a suburban-inner-city interchange.

d. Individually appraise the promotion potential and training needs of minority employees, and take action necessary to permit advancement.

e. Announce all position openings on a basis which brings them to the attention of minority employees and makes clear that minority persons are eligible and encouraged to apply.

#### Discipline

a. Formulate disciplinary standards and procedures in writing, and distribute them to all employees.

b. In case of proposed disciplinary action, inform the employee of the infraction alleged and afford an opportunity for rebuttal. If the rebuttal is deemed unsatisfactory, clearly state the reasons why.

#### Facilities

Assure that facilities, including all work-related facilities and those used in employer-sponsored recreational or similar activities, are not subject to segregated use, whether by official policy or by employee practice.

3. A continuing review of employment practices and of the status of minority persons in employment.

This third step of the program responds to the need for a continuing review of employment practices—particularly those related to the affirmative program—and of their effect upon minority persons. Such a review requires the regular collection and evaluation of data on employee distribution and personnel actions, such as that described under paragraph 1, above.

These data afford an important measure of the effectiveness of steps taken to overcome barriers to minority employment, by showing



the actual impact of employment practices on minorities; the data may indicate points at which changes are needed in the affirmative program to make it more effective. Similarly, where patterns of minority under-utilization which arose from past discrimination are being corrected, such comparative nonminority-minority data show the extent to which required changes in minority utilization are in fact being made.

Like the affirmative program itself, current data on minority employment should be made available to persons and groups with a legitimate interest in the status of minorities in public employment.

The following are illustrations of the steps necessary for an effective continuing review by State and local governments of their employment practices and of the status of minorities in employment.

a. Maintain records containing for the period covered, and indicating nonminority-minority classifications and the positions involved, complete data on inquiries, applications, acceptance, rejections, promotions, terminations, and other personnel actions, as well as data as of the end of the period, by nonminority-minority classification, on employee distribution within the work force.

b. Maintain for a reasonable period of time, with nonminority-minority classification, a file on each applicant (including those listed on a civil service register) adequate to document the specific grounds for rejection or passing over of the applicant.

c. Maintain a record, with nonminority-minority classification, of applicants by job source, to facilitate review of the impact of each source upon minority utilization.

d. Where there are a substantial number of separate components within the State or local government, make periodic inspection and review of employment practices and minority status in the various component agencies.

e. Regularly interview minority employees upon termination to determine whether discriminatory acts or policies played a role in the termination.

## II. Methods of enforcement and assistance by the Federal Government to advance equality in employment in State and local government

A. Congress should amend Title VII of the Civil Rights Act of 1964 (1) by eliminating the exemption of State and local government from the coverage of Title VII and (2) by conferring on the Equal Employment Opportunity Commission the power to issue cease and desist orders to correct violations of Title VII.

(1) Eliminating the exemption of State and local governments from the coverage of Title VII.

The present exemption of State and local governments from the nondiscrimination requirements of Title VII is anomalous since it precludes effective action against discrimination in the one type of employment—public employment where nondiscrimination clearly is mandated by the Constitution.

It is true that even without the proposed amendment, individuals have the right under the Constitution and Federal statutes to obtain judicial relief against discrimination in public employment. Experience in such areas as voting discrimination and school segregation, however, has shown that it is both unjust and unwise to impose upon individual victims the entire burden of correcting widespread noncompliance with constitutional obligations. To do so makes compliance depend upon the determination and financial ability of the victim to wage a time-consuming and expensive lawsuit and his success in obtaining the evidence necessary to sustain the charge. The fact that the victims often are impoverished members of minority groups who are ignorant of their rights makes such a remedy even more unsuitable. Even with willing litigants, private

lawsuits are an inefficient mode of effecting widespread compliance. Enforcement efforts are not coordinated so as to achieve maximum effectiveness but are instead governed by random suits in which the identity of the defendant and the nature of the relief sought are determined by a litigant whose main concern is redress of his particular grievance.

As amended, Title VII would provide a means of attacking employment discrimination in State and local governments since it provides an administrative agency (the Equal Employment Opportunity Commission) with authority to receive complaints of unlawful employment practices and to conciliate such complaints, and authorizes the Attorney General to bring suit whenever he believes that a person or persons are engaged in a pattern or practice of resistance to the rights secured by the Title. The Title also provides assistance to individual complaints in providing for court-appointed attorneys and the suspension of normal court costs.

(2) Conferring on the Equal Employment Opportunity Commission the power to issue cease and desist orders to correct violations of Title VII.

EEOC's present lack of power to compel corrective action severely handicaps its ability to obtain voluntary compliance, for the employer knows that EEOC can do nothing if he refuses to agree to its recommendations and that only aggrieved persons and the Attorney General may sue to compel compliance. Many of the cases in which EEOC has found probable cause to believe discrimination was practiced have not been successfully conciliated under the present law.

The experiences of State fair employment practice agencies shows that adequate enforcement machinery is indispensable to an effective equal employment opportunity law. Of the States presently having fair employment practice laws, the vast majority give the State commission administering the law power to issue cease and desist orders. Giving EEOC similar power would enhance its conciliation role by strengthening its bargaining power and make it a far more effective agent in ensuring equal employment opportunity.

B. The President should seek and Congress should enact legislation authorizing the withholding of Federal funds from any State or local public agency that discriminates against any employee or applicant for employment who is or would be compensated in any part by, or involved in administering the program or activity assisted by, the Federal funds.

The receipt of Federal grant-in-aid funds and the accompanying responsibility for implementing the Federal program supported by the funds engender numerous job opportunities with the recipient State and local agencies. The obligations of the Federal Government with respect to discriminatory actions by these recipients are based on the Due Process Clause of the fifth amendment which prohibits governmental support or involvement in discriminatory activities. Its involvement in grant programs as financier, prescriber of standards, and supervisor of execution imposes a duty on the Federal Government to ensure that there is no discrimination in the job opportunities provided by the funds.

The only Federal law directly dealing with discrimination by recipients of Federal financial assistance, Title VI of the Civil Rights Act of 1964, prohibits employment discrimination only in those programs in which the provision of employment is a primary objective. Accordingly, the recipients of funds under a large number of grant programs are not presently subject to nondiscriminatory employment requirements.

Responsibility for determining whether discrimination exists could be vested in the

agency administering the grant program, as in Title VI. Alternatively, this responsibility could be given to the Federal agency with greatest expertise in the area of employment discrimination, the Equal Employment Opportunity Commission. If, as previously recommended, Title VII is amended to include State and local governments and to provide the EEOC with power to issue cease and desist orders, the agency also would be empowered to direct that Federal funds be withheld in those cases in which the respondent is a recipient of such funds.

Congress also might provide that in those instances where EEOC finds discriminatory employment practices by such a recipient it must give the administering Federal agency a period of time to ensure correction of the practices before the funds are withheld.

C. Pending congressional action on Recommendation II B, the President should (1) direct the Attorney General to review each grant-in-aid statute under which Federal financial assistance is rendered to determine whether the statute gives the agency discretion to require an affirmative program of nondiscrimination in employment by recipients of funds under the program; and (2) require all Federal agencies administering statutes affording such discretion to impose such a requirement as a condition of assistance. In the event the Attorney General determines that under a particular statute the agency does not have the discretion to impose such a requirement, he should advise the President whether he has power to direct the agency to do so. If the Attorney General advises the President that he lacks such power in a particular case, the President should seek appropriate legislation to amend the statute.

As stated in the comment to Recommendation II-B, the Constitution forbids the extension of Federal grant-in-aid funds to recipients who discriminate in their employment practices. If Congress has neither expressly forbidden such discrimination by recipients in a grant program nor given the Federal agency administering the program discretion to impose such a condition, the Attorney General should determine whether the President, in fulfilling his constitutional duty to "take Care that the Laws be faithfully executed . . .," has the power and obligation to independently impose such a requirement.

## MEXICAN AMERICANS AND THE ADMINISTRATION OF JUSTICE IN THE SOUTHWEST: A REPORT OF THE U.S. COMMISSION ON CIVIL RIGHTS, MARCH 1970

THE U.S. COMMISSION ON CIVIL RIGHTS,

Washington, D.C., March 1970.

The PRESIDENT,  
The PRESIDENT OF THE SENATE,  
The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIRS: The Commission on Civil Rights presents this report to you pursuant to Public Law 85-315 as amended.

Under authority vested in this Commission by the Civil Rights Act of 1957 as amended, we have appraised allegations that American citizens of Mexican descent in five Southwestern States are being denied equal protection of the law in the administration of justice. We have found, through extensive field investigations during 1967 and 1968, three State Advisory Committee meetings in 1968, and a Commission hearing in 1968, all in that section of the country, that there is widespread evidence that equal protection of the law in the administration of justice is being withheld from Mexican Americans.

Our investigations reveal that Mexican American citizens are subject to unduly harsh treatment by law enforcement officers that they are often arrested on insubstantial grounds, receive physical and verbal abuse,

and penalties which are disproportionately severe. We have found them to be deprived of proper use of bail and of adequate representation by counsel. They are substantially underrepresented on grand and petit juries and excluded from full participation in law enforcement agencies, especially in supervisory positions.

Our research has disclosed that the inability to communicate between Spanish-speaking American citizens and English-speaking officials has complicated the problem of administering justice equitably.

We urge your consideration of the facts presented and of the recommendations for corrective action in order to assure that all citizens enjoy equal protection as guaranteed by the Constitution of the United States.

Respectfully yours,

Rev. THEODORE M. HESBURGH, CSC,  
Chairman.

STEPHEN, HORN,

Vice Chairman.

FRANKIE M. FREEMAN,  
HECTOR P. GARCIA, M.D.,  
MAURICE B. MITCHELL,  
ROBERT S. RANKIN,  
HOWARD A. GLICKSTEIN,

Staff Director.

#### PREFACE

The U.S. Commission on Civil Rights undertook this study against a background of written complaints and allegations at Commission hearings and at meetings of the Commission's State Advisory Committees that Mexican Americans<sup>1</sup> in the Southwest<sup>2</sup> were being subjected to discrimination by agencies of law enforcement and in the administration of justice.<sup>3</sup> The alleged discrimination included physical and verbal abuse and harassment by law enforcement officers; exclusion from grand and petit juries; improper and discriminatory use of bail; lack of and inadequate representation by counsel; and employment of disproportionately low numbers of Mexican Americans in law enforcement agencies—particularly in higher ranking positions.

The objective of this Commission study was to determine what, if any, factual basis existed for these allegations. In the course of the study, Commission staff attorneys conducted field investigations beginning in the latter part of 1967 and continuing in 1968, in which they interviewed approximately 450 persons in Arizona, California, Colorado, New Mexico, and Texas. Persons interviewed included law enforcement officers, probation officers, prosecuting attorneys, judges, public defenders, attorneys in private practice, leaders of Mexican American organizations, and private citizens. Two State Advisory Committee meetings were held in 1968 in New Mexico specifically to gather information for this study. At these meetings 46 persons, including law enforcement officers, attorneys, and private citizens made statements and were questioned by Committee members and staff. A similar State Advisory Committee meeting was held in California in August 1968, at which 21 persons appeared.

At a Commission hearing held in San Antonio, Texas, in December 1968, which dealt exclusively with the problems of Mexican Americans, sworn testimony was received from 17 witnesses, including private citizens, law enforcement officers, and attorneys, concerning the administration of justice.

The resources of the Commission did not permit a comprehensive survey in response to allegations of exclusion of Mexican Americans from juries. The Commission, however, contracted with the California Rural Legal Assistance, Inc. (CRLA), for a study of service by Mexican Americans on grand juries in selected California counties. The CRLA

report, which is printed as an appendix to this report, is summarized in the text.

A questionnaire was mailed to 793 law enforcement agencies in the five States, including nine State agencies, 168 county sheriffs' offices, and 616 municipal police departments seeking information regarding procedures for recruitment and selection of officers, the extent to which Mexican Americans were employed, policies on officer assignment and training, procedures for dealing with complaints against officers, as well as information on police-community relations. The counties selected were those having a minimum of 10 percent Spanish surname population and the municipalities selected were municipalities within these counties having a minimum total population of 3,000. A total of 331 questionnaires was returned to the Commission, of which 280 contained sufficient information for tabulation.

#### INTRODUCTION

##### Some vital statistics

The Mexican Americans living in the five States of Arizona, California, Colorado, New Mexico, and Texas constitute the largest minority group in that part of the United States.<sup>4</sup> In 1960 there were three and one-half million Spanish surname persons in those five States, and the current estimate is four million. The largest concentrations of Mexican Americans are in California and Texas, whose Spanish surname populations in 1960 were 1,426,358 and 1,417,810 respectively. Each of the five States has a substantial Spanish surname population, ranging from 9 percent in Colorado to more than 28 percent in New Mexico.<sup>5</sup>

Mexican Americans share with most other ethnic and racial minorities the twin problems of discrimination and poverty. Although this report concentrates on discrimination based on ethnic origin many of the problems discussed—including equal access to bail and counsel—are closely related to the widespread incidence of poverty among Mexican Americans. More than one-half (52 percent) of the rural Spanish surname families of the Southwest and not quite one-third (31 percent) of Spanish surname families living in urban areas had less than \$3,000 incomes in 1959.<sup>6</sup> Like other low-income groups, Mexican Americans are overrepresented in unskilled occupations<sup>7</sup> and have a high incidence of unemployment.<sup>8</sup> Their educational attainment falls substantially below that of both other whites and nonwhites in the Southwest.<sup>9</sup>

The poverty of Mexican Americans in the Southwest cannot be attributed to their recent immigrant status. About 85 percent of the persons of Spanish surname in the five Southwestern States were born in the United States and more than half were native-born of native parents. The Mexican American population has grown rapidly in recent years and it is a younger group, on the average, than the Anglo population.<sup>10</sup>

Mexican Americans are becoming increasingly urbanized. In 1960, 79 percent of the Spanish surname population lived in cities.<sup>11</sup> Racial discrimination and economic segregation restrict them in large numbers to identifiable neighborhoods, frequently referred to as "barrios", within these cities.<sup>12</sup>

This bare statistical outline suggests the social context in which Mexican Americans encounter the problems in the administration of justice which are discussed in this report.

##### A capsule history

A brief historical background of the Mexican American group is helpful in understanding the basis for its separate ethnic identity within the American "melting pot."<sup>13</sup>

The Spanish heritage of the Southwest is older than the American Union. The culture was Spanish and the land a Spanish colony until Mexico gained independence in 1821. As

early as 1538, the Spanish had set up a printing press in Mexico City. By 1551, they had established a university in Mexico City. By 1609, the Spanish had left a series of missions along the California coast, established Santa Fe, and ranged as far north as Kansas.

There was little cohesion among the Spanish colonies of North America. Royal power was represented by the Viceroy in Mexico City. Spaniards seldom brought wives or families to the New World. In contrast to the British, who usually emigrated as families, or even as communities, the Spaniards married Indian women. Thus they created a fusion of races known as the *mestizo*, the ethnic wellspring of the Mexican American.

Not until the 19th century, and then only in Texas, was there any appreciable settlement by immigrants from the United States in territory under Mexican sovereignty. The newly independent Mexican Government offered grants of farm and grazing land to encourage American settlers. Yet by 1834 the English-speaking population of Texas probably did not exceed 18,000 persons.

The Mexicans encouraged the Anglo-Americans to settle in the Southwest. When the first Anglo arrived, the Mexican taught him to survive in the desert, to irrigate and cultivate the land, to raise cattle, to use the horse, the lariat, and the western saddle. He gave him a new vocabulary—bronco, stampede, arroyo, mesa, savvy, cowboy. He gave him an architecture suited to the climate and the land.

The very immigration of Americans into Texas which the Mexican encouraged was their undoing. As the American population grew, so did problems between the Mexican and American Governments. A new Mexican Constitution of 1835 swept away many local rights; the Americans joined by some Mexicans revolted and proclaimed the Republic of Texas. In 1845, Texas became the 28th State of the United States. Mexico regarded the admission of Texas to the Union as a hostile act and the two Nations went to war. Hostilities ended following the occupation of Mexico City in 1847 with the treaty of Guadalupe-Hidalgo in 1848. Except for the territory later acquired through The Gadsden Purchase of 1853, all Mexican territory north of the Rio Grande was ceded to the United States. This embraced all or parts of the present States of Colorado, Utah, Nevada, New Mexico, Arizona, Texas, and California.

Mexican citizens living in the area were given the choice of returning to Mexico under no penalty or tax, or of remaining and becoming American citizens automatically after 1 year following the ratification of the treaty. Property rights were to be respected and protected during the interim period and all rights of citizenship were conferred upon those who elected to stay.

The majority of Mexicans north of the Rio Grande chose American citizenship, even though Mexico offered resettlement and land grants. Constitutional guarantees of their rights as United States citizens, continuing political instability in Mexico, and a 300-year history of settlement in the territory ceded to the United States by Mexico were factors affecting the decision.

Soon after the Mexican War the people of the United States swept westward to the Pacific. The growth of cattle and cotton empires in Texas and the discovery of gold in California brought Anglo-Saxons into the Southwest at such a rate that the Mexican Americans were soon outnumbered. Only New Mexico maintained a majority of Mexican Americans for years after becoming a United States territory. The slower pace of American settlement in New Mexico has been attributed, in part, to the extraordinary hostility of Indian tribes there and to the fact that New Mexico contained few apparent economic opportunities. The few Anglos who settled in the territory generally stayed in the urban areas in the southern half, intermar-

Footnotes at end of article.



ried at the upper economic levels, and made a pleasant and profitable accommodation with the Mexican Americans.

In Texas, however, hostility toward Mexicans, born of the war for Texas independence and the Mexican War, continued. The entire area between the Nueces and the Rio Grande was the scene of lawlessness and countless border raids by Mexicans, and Texans alike. An imported slave culture influenced Anglo attitudes. Although Mexicans were not considered in as low a category as Negroes, they were regarded as racially inferior to Anglo-Americans.

To California, meantime, came Anglo-Saxon banking, land, and business practices which were foreign to traditional Spanish ways. Ancient land titles dating from the 16th century were difficult to validate, and the American system of land taxation, which was on an assessed value of the land rather than the value of the produce of the land, all but stripped the original Californians of their lands. Drought and the mining industry helped to destroy the great *rancho* cattle empires, and by the 1860's, five-sixths of the land in southern California was reported to be delinquent in tax payments. More than 40 percent of the land owned by the once wealthy and influential Mexican families went for as little as 25 cents an acre. With the decline of economic influence, Mexican American political power waned.

After 1930 more than 750,000 persons emigrated from Mexico to the Southwestern States.<sup>14</sup> Two principal reasons are cited for this movement. One is the political instability of Mexico during the 1910-1920 revolution. During this period, many thousands came over as refugees. The second is the fact that there has never been an immigration quota system for Mexico. As economic opportunity waxed in the United States, or waned in Mexico, traffic would flow across the border. The rise of cotton cultivation in Texas, the growth of mining in Arizona and agriculture in Colorado, and the rapid expansion of the citrus and vegetable industries in California—all these created enormous demands for cheap labor which the Anglo population could not or would not supply.

Manpower shortages in two World Wars redoubled these demands. Mexican immigrant laborers became the principal work force for California agriculture. Essentially migrant, they increasingly returned at season's end to Los Angeles, making it their home base. The same pattern developed in Texas, with El Paso and San Antonio serving as winter homes for migratory workers.

The cotton boom spread into Arizona during World War I, drawing substantial numbers of Mexicans to that State. When the demand dropped after 1918, some of the workers returned to Mexico. But a considerable number stayed to work in copper mines. By 1930, Mexican Americans represented 25 percent of Arizona's population.<sup>15</sup>

The displacement of Anglo tenant farm workers by cheaper Mexican immigrant labor fed prejudices in Texas, Mexican American children often were sent to separate schools and discrimination was widely practiced. Violence against Mexican citizens and Mexican Americans became so widespread that, in 1922, the Secretary of State warned the Governor of Texas that action would have to be taken to protect Mexicans.

The Mexican American population was extremely hard hit by the nationwide depression of the 1930's. Traditionally ill-paid, with little or no financial reserves, a large number were on relief. Some welfare agencies, notably in the Los Angeles area, forcibly repatriated Mexicans to get them off relief rolls. Labor unrest was common and there were several instances of strikes by Mexican American agricultural workers in southern California. The use of violence to break up strikes and inhibit union activity was not uncommon.

The problems of the depression years were not the exclusive burden of the Mexican Americans. Mexican Americans undoubtedly did, to some degree, share in the benefits of the labor and welfare programs of the thirties such as TVA, CCC, and AAA; the Fair Labor Standards Act, Social Security Act, and the Wagner Labor Act; and the major advances in farm and housing legislation.

At the same time, the Mexican Americans were not singled out for special benefits or attention during this period. One reason may have been the absence of political organizations and politically active leaders among the Mexican Americans; another, the almost total concentration of the Mexican American population in the Southwestern States.

As the depression eased, some improvements began to appear. In New Mexico, efforts were made to better schools and health services. On a lesser scale, similar advances were begun in California, Arizona, and Colorado.

Texas lagged behind, however. Educational and health levels for Mexican Americans in Texas were the lowest in the Southwest. As late as 1943, the Mexican Government refused to permit Mexican laborers to work in Texas because of discriminatory practices against Mexican nationals and Americans of Mexican ancestry. This led the Governor to establish a Good Neighbor Commission; the State legislature also adopted a resolution which, without naming Mexican Americans, recognized them as Caucasians and entitled them to enjoyment of "white-only" public accommodations.<sup>16</sup>

Mexican American relations with the majority community were jarred in that same year by the notorious "zoot suit" riots which occurred in June in Los Angeles. Anglo sailors claimed to have been attacked by a gang of Mexican American youths dressed in a foppish style of the time which affected heavily padded shoulders, wide lapels, and pegged pants—so-called "zoot" suits. In retaliation for the alleged attack, about 200 sailors, later joined by other servicemen and by civilians, roamed the streets, attacking Mexican Americans.

On June 13, 1943 a special committee appointed by Governor Earl Warren recommended that all participants be punished, whether zoot suiters or military; that the community be made safe for all, regardless of race; that no group be allowed to act as vigilantes; and that the large number of Mexican American youths arrested created a distorted picture, since juvenile delinquency was lower in that group than any other group in the community. The committee also recommended that racial and ethnic data be deleted from arrest information, that the press show more cooperation, that law enforcement agencies provide special training for officers dealing with minority groups, that recreational facilities in minority areas be increased, and that discrimination in public facilities be abolished.

World War II had a multiple impact on Mexican Americans. Thousands of Mexican American men in military service were exposed to attitudes, mores, and ways of life which differed from those of the Southwest. After the war the G.I. bill offered Mexican American veterans educational training opportunities which they otherwise would not have received.

The period since the end of World War II has also seen the growth of political awareness and participation by Mexican Americans. Such organizations as the Political Association of Spanish Organizations (PASO) in Texas; the Mexican American Political Association (MAPA) in California; and various branches of the National G.I. Forum (Mexican American veterans organization) have successfully promoted the candidacy of Mexican Americans in Texas, California, and New Mexico.

Although these political movements have contributed to progress in obtaining equal

opportunity for Mexican Americans, a number of major issues remain unresolved. Among these is the ever-present problem of Mexican American relations with law enforcement agencies, which constitutes the basis for this report.

#### FOOTNOTES

\*No longer member of the Commission.

<sup>1</sup> The term "Mexican American" refers to persons living in the United States who are themselves of Mexican origin or whose parents or more remote ancestors came to the United States from Mexico or whose antecedents resided in those parts of the Southwestern United States which were once part of the Mexican Nation. This is the most common designation used in the Southwestern States. Others are "Spanish American," "Latin," and "Latin American."

The term "Spanish surname or surname" is used in this report where material is from a secondary source which uses this term or is based on the 1960 Census of Population of the United States which used this term to designate persons with Spanish surnames. In the Southwestern States, the vast bulk of this group is Mexican American.

The term "Anglo" is used in this report, as it is in the Southwest, to refer to white persons who are not Mexican American or members of another Spanish surname group. The term has no derogatory connotations as used in the Southwest or in this report.

<sup>2</sup> Arizona, California, Colorado, New Mexico, and Texas.

<sup>3</sup> Section 104(a)(2) and (3) of the Civil Rights Act of 1957, (71 Stat. 634), as amended, provide:

"Sec. 104. (a) The Commission shall—

"(2) study and collect information concerning legal developments constituting a denial of equal protection of the laws under the Constitution because of race, color, religion, or national origin, or in the administration of justice;

"(3) appraise the laws and policies of the Federal Government with respect to denials of equal protection of the laws under the Constitution because of race, color, religion, or national origin, or in the administration of justice. . . ."

Prior reports of the Commission dealing with the administration of justice include *Justice*, Vol. 5, 1961 Statutory Report; *Civil Rights: Interim Report of the U.S. Commission on Civil Rights* (1963) and *Law Enforcement: A Report on Equal Protection in the South* (1965). Reports of the Commission's State Advisory Committees which deal with this subject include: *Report on California: Police-Minority Group Relations*, 1936; *Police-Community Relations in Peoria, Illinois* (1966); *The Administration of Justice in Starr County, Texas* (1967); *Employment, Administration of Justice, and Health Services in Memphis-Shelby County, Tennessee* (1967); *Civil Rights in Oakland, California* (1967).

<sup>4</sup> In 1960, the combined population of those five States was 11.8 percent Spanish surname and 7.1 percent Negro. U.S. Bureau of the Census, *U.S. Census of Population: 1960. Subject Reports. Persons of Spanish Surname*. Final Report PC(2)-1B (1963) [hereinafter cited as *Persons of Spanish Surname*].

<sup>5</sup> The distribution of Spanish surname persons within the five Southwestern States is shown by the following table:

SPANISH SURNAME POPULATION—5 SOUTHWESTERN STATES 1960

State	Total State population	Spanish surname population	Percent Spanish surname
California.....	15,717,204	1,426,358	9.1
Texas.....	9,579,677	1,417,810	14.8
New Mexico.....	951,023	269,122	28.3
Arizona.....	1,302,161	194,356	14.9
Colorado.....	1,753,947	157,173	9.0

Source: *Persons of Spanish Surname*.

\* U.S. Dept. of Agriculture, Economic Research Service, Agricultural Economic Report No. 112, *Low Income Families in the Spanish Surname Population of the Southwest* p. 10-11 (1967). The average income level of the Spanish surname population in 1959 was higher than that of non-whites in the five Southwestern States. Particularly in New Mexico and Arizona, where there are large

concentrations of Indians, median non-white incomes were considerably below those of persons of Spanish surname. Nevertheless, average incomes for Spanish surname fell appreciably below that of the total white population and this pattern was general throughout the Southwest. The income pattern is illustrated by the following table taken from the U.S. Census of 1960:

PERCENTAGE OF SPANISH SURNAMED, WHITE NONSPANISH AND NONWHITE FAMILIES WITH INCOME LESS THAN \$1,000 AND \$10,000 OR MORE IN 5 SOUTHWESTERN STATES

	Spanish surname		White non-Spanish surname		Nonwhite	
	Under \$1,000	\$10,000 or over	Under \$1,000	\$10,000 or over	Less than \$1,000	\$10,000 and over
Arizona.....	7.2	4.6	3.7	16.9	26.9	2.8
California.....	4.5	10.8	2.9	23.8	6.3	9.7
Colorado.....	6.4	4.8	3.2	15.6	6.3	6.5
New Mexico.....	11.3	5.4	3.6	18.7	28.2	3.4
Texas.....	13.6	2.7	5.2	14.6	18.0	1.5

U.S. Bureau of the Census. U.S. Census of Population: 1960 Supplementary Reports, Series PC(S1)-55. "Population Characteristics of Selected Ethnic Groups in 5 Southwestern States." Table 7.

<sup>7</sup> In 1960, 76 percent of Mexican American males were manual workers, compared to 54 percent of employed white males. Computations from 1960 census data in Heller: *Mexican American Youth: Forgotten Youth at the Crossroads* (1966), p. 12.

<sup>8</sup> In 1960, the unemployment rate for Mexican American urban males was 8.5 compared to 4.5 for Anglo-Americans. Fogel: *Mexican Americans in Southwest Labor Markets*, p. 20 (U.C.L.A. Mexican American Study Project, Advance Report No. 10, 1967).

<sup>9</sup> In 1960, the median number of school years completed was 8.1 years for Mexican Americans over 14 compared to 12.0 years for Anglos and 9.7 for nonwhites in the Southwest. Grebler: *The Schooling Gap: Signs of Progress* (U.C.L.A. Mexican American Study Project Report No. 7, 1967).

<sup>10</sup> The median age of Mexican Americans in the Southwest in 1960 was 20, while the median age of Anglo-Americans was 30, Heller, *supra* at 27.

<sup>11</sup> Agricultural Economic Report No. 112, *supra* n. 3.

<sup>12</sup> See, generally, Moore and Mittelbach: *Residential Segregation in the Urban Southwest* (U.C.L.A. Mexican American Study Project, Advance Report No. 4, 1966). This report shows that although residential segregation of Mexican Americans is less severe than of

Negroes, it is quite prevalent in southwestern cities.

<sup>13</sup> See generally, Maisel: *They All Chose America* 172-184 (1957); Morison and Commager: *The Growth of the American Republic* v. 1, 13-37, 578-597 (1942); McWilliams: *North From Mexico*, 26, 49-50 (1948); McWilliams: *Brothers Under the Skin*, 119-121; Perrigo (rev. ed. 1951) *Our Spanish Southwest*, chs. III & IV (1960).

<sup>14</sup> U.S. Bureau of Census, *Historical Statistics of the United States, Colonial Times To 1957*, Wash., D.C. (1960) Series C88-114.

<sup>15</sup> U.S. Bureau of Census, *Abstract of the Fifteenth Census of the United States*, 84 (1933).

<sup>16</sup> State of Texas House Concurrent Resolution No. 105, approved May 6, 1943.

#### PARTICIPATION BY MEXICAN AMERICANS IN LAW ENFORCEMENT AGENCIES

##### IMPORTANCE OF PARTICIPATION

In the course of this study, the opinion was voiced that fear and distrust of Mexican Americans toward law enforcement agencies could be reduced by increasing the number of Mexican American law enforcement officers. For example, a Mexican American probation officer who had been a policeman in

Phoenix for 6 years, stated that more Mexican American police officers were needed in that city.<sup>1</sup> He thought police teams could operate more effectively in Mexican American neighborhoods if at least one of the members was a Mexican American. The Mexican American officer, he believed, could put Mexican American citizens at ease, serve as an on-the-spot interpreter when necessary, and thus defuse tense police-citizen encounters and avoid miscarriages of justice.

The director of public safety for the city of Las Cruces, New Mexico, a Mexican American, stressed the importance of placing Mexican American law enforcement personnel at many levels of responsibility to secure the trust and confidence of the Mexican American community. He pointed out that in Albuquerque, no Mexican American law enforcement officer held a high ranking or policy-making position. In the same city the Spanish-speaking community continuously complained of police misconduct. By way of contrast he pointed to another large city in New Mexico where Mexican Americans held positions as police lieutenants and captains. Here police-community relations were excellent because the Spanish-speaking community, represented at all levels within the police department, was convinced that it would receive fair treatment from the police.<sup>2</sup>

Extent of participation.—In order to obtain information of the employment of Mexican Americans in law enforcement agencies, the Commission included questions on employment statistics in the questionnaire sent in October 1968 to 793 law enforcement agencies. These included 616 police departments, 168 county sheriffs, and nine State agencies in Texas, Arizona, California, Colorado, and New Mexico. The communities represented by these agencies ranged in size from less than 10,000 population up to and including metropolitan areas of more than 500,000 persons. The larger cities included Phoenix and Tucson, in Arizona; Los Angeles, San Francisco, San Diego, Oakland, and Sacramento, in California; Denver, Colorado Springs, and Pueblo, in Colorado; Albuquerque and Santa Fe, in New Mexico; Dallas, Houston, Ft. Worth, San Antonio, El Paso, and Austin, in Texas. Responses were received from 280 law enforcement agencies—about 35 percent of the recipients. There were 243 responses from police departments, 32 from sheriffs' offices, and six from State law enforcement agencies.

#### POLICE EMPLOYEES—UNIFORMED, PLAINCLOTHES, AND CIVILIAN

Position	Uniformed			Plainclothes			Civilian employees		
	Total	Mexican American	Percent Mexican American	Total	Mexican American	Percent Mexican American	Total	Mexican American	Percent Mexican American
Patrolman.....	17,946	1,001	5.6	1,554	151	9.7	8,375	518	6.11
Detective.....	2,625	132	5.0	396	33	8.3			
Sergeant.....	898	29	3.2	133	11	8.3			
Lieutenant.....	413	25	6.0	95	6	6.3			
Captain.....									
Inspector.....	68	3	4.4	33	None	0			
Chief inspector.....	27	2	7.4	4	None	0			
Deputy chief.....	60	2	3.3	32	2	6.3			
Chief.....	195	12	6.0	52	1	2.0			
Unclassified.....	1,712	41	2.4	99	20	20.0			
Total.....	23,944	1,247	5.2	2,398	224	9.3			
							Total civilian employees.....		8,375
							Total police employees.....		26,342
							Total all employees.....		34,717
							Total MA employees.....		518
							Total Mexican American police employees.....		1,471
							Total MA employees.....		1,989
							Percent MA's overall total.....		5.7

Note: Cumulative statistics obtained from answers to Commission October 1968 questionnaires.

#### POLICE DEPARTMENTS

Total employment in 243 police departments—uniformed, plainclothes, and civilian—was 34,717. Of this number, 1,989 or 5.7 percent, were Mexican American. This contrasts with the Mexican American proportion of the five-State region's popula-

tion—11.8 percent.<sup>3</sup> There were found to be 23,944 uniformed officers, of whom 1,247 or 5.2 percent were Mexican American. Of the uniformed policemen, 10,648, or 45 percent, had never been on duty with a Mexican

Footnotes at end of article.

American officer at any time in their police careers.

Among plainclothes officers, 244 or 9.3 percent were Mexican American out of a total of 2,398. Of the 8,375 civilian employees, Mexican Americans totaled 518, or 6.11 percent.



Significant variations appeared in the extent to which Mexican Americans were employed by police departments. In some cities the Mexican American proportion of the police force approached the Mexican American proportion of the population. For example, in a Texas city with a Mexican American population of about 40 percent, 165 of the 623 uniformed police officers, or 26.5 percent, were Mexican Americans, and 40 of the 131 plainclothesmen [30 percent] were Mexican American. In a large city in New Mexico, with a 28 percent Mexican American population, about 20 percent of the uniformed policemen and 31 percent of the plainclothesmen were Mexican Americans.

Other cities—and these were in the large majority—had significantly poorer records. In a large Texas city which estimated its Mexican American population at 7 percent of the whole, less than 3 percent of the uniformed policemen and only 2 percent of the plainclothesmen were Mexican American. A large Colorado city with an approximate 30 percent Mexican American population had a uniformed police force that was 13.4 percent Mexican American.

Ethnic breakdowns were not received from the police departments of either Los Angeles or San Francisco—the two largest cities in California. The Los Angeles Chief of Police sent a letter to the Commission's Acting Staff Director in October 1968, in which he stated that much of the requested information was unavailable in his office, and that the assembling of what information he did have would require excessive man-hours. He further indicated that if the Commission would send a staff member to Los Angeles, a representative from his community relations office would assist him in gathering some of the information. According to the Los Angeles Human Relations Bureau, total employment in the Los Angeles Police Department for 1968 was 5,937 persons. The bureau was unable to provide any ethnic breakdown of this total, stating that employment statistics by race and ethnic origin were no longer kept by the police department.<sup>4</sup> An official Los Angeles publication for fiscal year 1967-68 indicates that there were 1,844 new appointments to the police department during that year, of whom 153, or 8.3 percent were Mexican Americans.<sup>5</sup> The 1960 census indicates that 10.5 percent of Los Angeles' population is Mexican American.

The Human Rights Commission of San Francisco informed the Commission that as of May 31, 1968, there was a total of 2,240 police department employees in San Francisco, of whom 33—slightly over 1.4 percent—were Spanish surnamed. There were 1,722 uniformed policemen, of whom 22—slightly under 1.3 percent—were Spanish surnamed.<sup>6</sup> Seven percent of San Francisco's population is Mexican American, according to the 1960 census.<sup>7</sup> In May 1967, the Commission held a public hearing in the Bay Area cities of San Francisco and Oakland. A staff report prepared in connection with that hearing concluded that:

"In the Bay Area, Spanish Americans are underrepresented in local governmental employment as well as in Federal employment. . . . Of 1,722 uniformed policemen, only 22 are Spanish-speaking, of whom 19 are policemen-entrants. [There are 1,253 persons in the police-entrants' category.]"<sup>8</sup> According to 1967 figures collected by the Commission for its study of patterns of minority group employment in State and local government, in Oakland, which had a Spanish surnamed population in 1960 of 6.8 percent, only 0.6 percent of the uniformed police were Mexican American.<sup>9</sup>

In another large California city, where Mexicans constituted an estimated 10 percent of the population, only 23 of the 700 uniformed officers, or 3.3 percent, and only

two of the 123 plainclothes officers, or 1.6 percent, were Mexican American. In another large city in California, the Mexican American percentage was 15 percent of the total population. Of this city's 370 uniformed policemen, 14, or 3.8 percent and of its 79 plainclothes investigators, four, or 5 percent, were Mexican American.

A number of inquiries in the questionnaire related to recruitment and selection practices. The first question asked was whether the agencies had established qualifications for appointment. Of the 277 agencies which responded, 274 answered affirmatively. The requirements of only 164 agencies, however, were in printed form and available to the public.

A majority of the responding agencies required that as a condition of employment officers live in the jurisdiction. Of 271 agencies responding to a question regarding minimum educational requirements for initial appointment, 193 required high school graduation. The great majority of agencies stated that applicants were required to take physical, written, and oral examinations.

More than 40 percent of the responses listed failure to pass written examinations as the primary reason for disqualification of Mexican American applicants. Nearly 30 percent listed failure to meet physical requirements,<sup>10</sup> 25 percent reported failure to meet educational requirements, almost 25 percent listed inadequate character references, and about 17 percent mentioned lack of facility with the English language as the primary reason for disqualification.

There were 56 agencies which stated that no Mexican American applicants had applied in the previous 3 years; 157 responded that from 1 to 10 percent of their applicants had been Mexican Americans. These 213 responses constituted almost 80 percent of the 271 responses to this question.<sup>11</sup> The questionnaire asked the agencies for their views as to the reason why relatively few applications had been received from Mexican Americans. Inability to meet the educational requirements was the most frequent response. Of the 271 respondents, 193 indicated that a high school degree was required for police applicants. The second most important factor was the existence of written examinations. The third factor, cited in almost as many responses as the second, was an unfavorable impression of police work by Mexican Americans.

This last factor frequently was cited during the Commission's field investigations. Rev. John Luce and Rev. Charles White stated that Mexican Americans in Los Angeles were reluctant to become policemen for fear of being regarded with disfavor by other Mexican Americans. The main reason for this fear, they said, is that Mexican Americans do not trust the Los Angeles police and are convinced that the police do not trust them. Most of the Mexican American police officers in Los Angeles, they said, are looked upon as "sell-outs" and are often described as having become Anglicized in their attitudes and practices.<sup>12</sup>

Similarly, a Spanish surnamed police officer in Denver, referring to the attitude of the Mexican American community toward any Mexican American police applicant, stated: "He is considered to be a defector."<sup>13</sup> The officer's superior, an Anglo division chief, supported this view, saying: "A stigma attaches to a minority individual when he becomes a member of a police department."<sup>14</sup> According to an official of the community action program in Roswell, New Mexico, Mexican American community leaders there are unwilling to furnish names of potential Mexican American applicants to the police chief because the leaders are apprehensive of subsequent criticism and abuse by the Mexican American community.<sup>15</sup>

Community leaders in each of the five States suggested that special efforts must be

made to attract qualified Mexican Americans into law enforcement work. A majority of the departments, however, have no recruitment program, much less programs designed to attract Mexican American and other minority applicants. Of the 272 agencies responding to the question as to whether the agency had a recruitment program, 162 stated that they had none, and 177 said they had made no special efforts to recruit Mexican American applicants during the past 2 years.

Queried as to which methods the agency utilized to inform the Mexican American community of its desire to receive applications, 56 out of 141 agencies responding, or 40 percent, indicated that they had made announcements which were distributed by Mexican American community organizations. Only nine agencies, however, indicated that they had arranged for the publication of such information in local Spanish language newspapers; only 16 had made arrangements for such announcements to be broadcast over local Spanish language radio and television stations; and only two had printed such announcements in Spanish and had had them distributed in the Mexican American communities.

The larger cities have the poorest records. Of the 141 responses, 17 came from cities with populations of 250,000 to 500,000. Of these 17, only one stated that it had made an announcement in a Spanish language newspaper or on a Spanish language radio or television station.<sup>16</sup>

#### SHERIFFS

Twenty-seven of the 32 responses from county sheriffs furnished statistics concerning their law enforcement personnel by ethnic category. Eleven came from Texas, seven from California, four from New Mexico, three from Colorado, and two from Arizona. In these 27 counties the sheriffs and their deputies and other law enforcement personnel totaled 5,251. Of this number 292, or 5.5 percent, were Mexican American.<sup>17</sup>

In several counties in Texas the Mexican American proportion of the deputies in the sheriff's office equaled or exceeded the Mexican American proportion of the county's population. Thirty-seven out of 39 sheriffs' deputies in Webb County [Laredo] Texas—where Mexican Americans constitute 77 percent of the population—and 36 out of 73 in El Paso County [49 percent Mexican American] were Mexican Americans. In both of these counties, the sheriffs also were Mexican Americans. In Bernalillo County, New Mexico—where Albuquerque is located—15 of the 27 sheriff's deputies were Mexican Americans.

These are exceptions to the rule, however. Commission staff members received information that a relatively low number of Mexican Americans were employed as law enforcement personnel by sheriffs in the majority of areas visited.

For example, in both of the two largest cities in Arizona, the sheriffs had only token numbers of Mexican Americans on their staffs.<sup>18</sup> One Mexican American attorney in Texas pointed out that there were few Mexican American deputy sheriffs in many of the counties located in the Rio Grande Valley, where Mexican Americans constitute a significant portion or even a majority of the population.<sup>19</sup>

A Texas county where the population exceeds 22,000, of which Mexican Americans constitute about 25 percent, had no Mexican American deputies on the sheriff's staff, according to a community leader.<sup>20</sup> The sheriff's response to the questionnaire confirmed this statement. A similar situation existed in Reeves County, Texas [population approximately 14,000], where the population is about 50 percent Mexican American. According to a prominent community leader in Pecos, the county seat of Reeves County, there had not been a Mexican American deputy sheriff for many years.<sup>21</sup> Similarly in Culberson County,

Footnotes at end of table.

Texas, where 45 percent of the population is Mexican American, the sheriff had no Mexican Americans on his staff.<sup>22</sup>

#### STATE LAW ENFORCEMENT AGENCIES

Six State law enforcement agencies responded to the Commission questionnaire—two from California and one from each of the States of Arizona, Colorado, New Mexico, and Texas. The response of the Texas Department of Public Safety indicated that 28 of its 1,740 uniformed and plainclothes officers were Mexican Americans—1.6 percent of the total officer force—in sharp contrast to the Mexican American proportion of the State's population [14.8 percent].

Testifying at the Commission's San Antonio hearing, Col. Wilson Speir, director of the Texas Department of Public Safety, reported that there were no Mexican Americans among the 62 Texas Rangers in his department. He said that there were 38 Mexican American patrolmen and two Mexican Americans on the intelligence staff.<sup>23</sup> In response to the Commission's questionnaire, the total number of patrolmen was given as 1,432, of whom only 26 were Mexican Americans—1.8 percent. At the hearing, in response to Commissioner Hector Garcia's questioning, Colonel Speir admitted that he arrived at the figure 38 by classifying uniformed officers serving in the drivers' license service and the motor vehicle inspection service as "patrolmen."

At the hearing Speir testified: "We have had in past year a captain of the Texas Rangers that was a Mexican American, Captain Gonzales, one of the most famous of all Ranger captains, who is now retired after 30 years of service."<sup>24</sup> In response to a question by Commissioner Garcia, himself a Texan, about the spelling of this former Ranger's last name, Speir responded "G-o-n-z-a-u-l-l-e-s." When Commissioner Garcia expressed the view that this man was never considered to be a Mexican American by the statewide Mexican American community, Speir responded that he was considered to be a Mexican American by the Texas Department of Public Safety.<sup>25</sup>

The name of the former Ranger captain actually was spelled "G-o-n-z-a-u-l-l-a-s."<sup>26</sup> In a newspaper account of an interview with Gonzales, [which took place the day after the hearing], who had retired in 1951 after 30 years' service with the Texas Rangers, he is reported to have stated that his father was of Spanish-Portuguese descent, that his mother was of German descent, and that he considered himself to be an American. He also was reported to have said that he could never recall a Mexican American holding a high rank in the Texas Rangers during his 30 years service although he did know of one regular Mexican American Ranger.<sup>27</sup>

The California Highway Patrol listed an overall total of 5,010 uniformed officers, including 4,364 State traffic officers. It failed to indicate whether any of these uniformed personnel were Mexican American. Its covering letter accompanying its response stated in part:

"Under State law, race, descent, or ethnic group affiliation has no bearing on securing employment with this Department". Similarly, the California Department of Justice, which returned the Commission's questionnaire unanswered, stated in a letter that it had two law enforcement bureaus within the department—the bureau of criminal identification and investigation with 33 special agents, and the bureau of narcotics enforcement with approximately 100 peace officers. It did not indicate how many were Mexican American, stating only that there were a "substantial number" of Mexican Americans in each of these bureaus.

The Colorado State Patrol response indicated that it had 418 uniformed officers of whom 350 were patrolmen. All of the 12 Mex-

ican Americans were patrolmen and they constituted slightly more than 2.8 percent of the total 418.

The New Mexico State Police response showed 248 law enforcement personnel. Sixty-one of the 229 uniformed officers and 13 of the 19 plainclothesmen were Mexican American. Thus, Mexican Americans constituted 74 of the 248 personnel—or nearly 30 percent of the law enforcement officers in the agency. The statistics from this one agency compare favorably with the 1960 Population Census for New Mexico which indicates that Mexican Americans were patrolmen and they 28.3 percent of its total population is Mexican American.

#### SUMMARY

Public officials and private citizens, including judges, lawyers, probation officers, all expressed the belief that the fear and distrust which many Mexican Americans feel toward law enforcement agencies could be significantly dispelled by increasing the number of Mexican American law enforcement officers at all levels of authority.

The majority of the law enforcement agencies responding to a Commission questionnaire stated that they had made no special efforts to recruit Mexican American applicants in the past 2 years. Many of these agencies indicated that the prerequisite of a high school degree, the existence of written tests, and the high physical fitness requirements were major deterrents against application by Mexican Americans and the reason why many of those who did apply failed to qualify. While this may, in part, account for the low number of Mexican American applicants, the failure to establish specially designed minority recruitment programs and to utilize Spanish language advertising media such as newspapers, radio, and television to publicize such programs undoubtedly contributes significantly to the fact that so few Mexican Americans apply for police jobs.

#### PARTICIPATION

##### Recommendation 1—Affirmative recruitment program

The Commission recommends that State and local law enforcement agencies establish:

- (a) affirmative recruitment programs specially designed to increase the number of Mexican American law enforcement personnel;
- (b) training programs to increase the ability of Mexican Americans and other minority persons employed by law enforcement agencies to obtain promotions to supervisory positions.

#### Justification

Additional Mexican American officers can contribute significantly in reducing the present feeling of apprehension and distrust which generally pervades the Mexican American community toward law enforcement agencies. Such officers often can serve as on-the-spot interpreters and thus ease tense situations even, in some instances, preventing miscarriages of justice which result from misunderstandings.

In the report of the Kerner Commission a reference is made to the Crime Commission Police Task Force's finding that Negro policemen help provide insight into ghetto problems; often can provide advance information in anticipation of tensions and grievances that might lead to disorders; and are particularly effective in bringing disorders under control once they do break out.<sup>28</sup> The Kerner Commission's report continued by pointing out that more Negro police officers were needed at all levels and ranks, and recommended that police departments intensify their efforts to recruit more Negroes, review their promotion policies to ensure that Negro officers are afforded equitable promotion opportunities, and ascertain that Negro officers are assigned on a fully integrated basis visible to the Negro community.<sup>29</sup> These finding and recommendations by the Kerner Commission support the Commission's recommendation

for efforts to increase the number of Mexican American law enforcement officers at all levels of authority. In its recent report on State and local employment, the Commission discussed in detail the component elements of a successful affirmative action program. That discussion may be useful to agencies seeking to implement this recommendation.<sup>30</sup>

We recognize that in some cases police departments will have difficulty recruiting members of minority groups. The recent report of the Commission on equal employment opportunity in State and local government, indicated that . . . "The tension, suspicion, and hostility which exists between the Negro community and the police department are obstacles to the recruitment of black policemen."<sup>31</sup>

Nevertheless, those departments that have made an effort to reverse their image in the minority communities and who have used special recruiting efforts designed to attract minority communities and who have used success.<sup>32</sup> The Commission believes that similar efforts especially designed to attract Mexican American applicants will have a similar effect in increasing the number of Mexican American law enforcement personnel.

Recruitment of more Mexican Americans by law enforcement agencies would not affect the agencies' policies unless Mexican Americans also have opportunities to be promoted to supervisory positions. If they are not qualified for promotion because of lack of education or training, agencies should provide them with opportunities to make up for such deficiencies. Such programs should offer training both to recruits and to present law enforcement officers desirous of advancing to supervisory positions. Federal funds under LEAA are available for this purpose.<sup>33</sup>

#### Recommendation 2—Qualifications

Law enforcement agencies should review their qualifications for appointment and eliminate those which may not be job-related and which may tend to discriminate against Mexican American applicants.

#### Justification

Both Federal and private industry officials have informed the Commission in the past that many job requirements have little or no relationship to the actual work to be performed. For example, many private companies have abolished some of their application requirements, since they have determined that they had little or no bearing on actual job requirements of new employees was readily attainable through on-the-job training. If such techniques can be utilized to train semi-skilled and skilled technicians, the Commission believes that similar techniques can be developed and employed to properly train Mexican American law enforcement applicants.

In its report *For All the People*, the Commission on Civil Rights has pointed out the difficulty that many police applicants encounter in taking lengthy written intelligence tests. Furthermore, the validity of such tests has not been proven and at least one police department in a major city—Detroit—is now using a general intelligence test, which takes only 12 minutes to complete, in contrast to the former 2½ hour intelligence test.<sup>34</sup>

Age, weight, height and vision requirements are invariably more stringent for police applicants than elsewhere in State or local government employment. However, when police departments have made special efforts to recruit minorities they have seen fit to make many of these requirements more flexible. For example, in an effort to recruit more Negro officers, Detroit has recently liberalized its age, height, and vision requirements.<sup>35</sup> Other large cities have reduced their height requirement from 5'9" to 5'7", in response to pressure from their Spanish-speaking communities.<sup>36</sup>

The elimination of lengthy written tests

Footnotes at end of article.



and the substitution of shorter, more meaningful job-related tests, together with the relaxation of certain physical qualifications, can result in the ultimate hiring of greater numbers of Mexican American applicants.

#### Recommendation 3—Judges

The President of the United States and the Governors of the five Southwestern States of Arizona, California, Colorado, New Mexico, and Texas should use their powers to appoint qualified Mexican American attorneys to the Federal and State courts.

#### Justification

The Commission is aware that, with the exception of Colorado, virtually all of the State judges and justices are elected. However, deaths, resignations, and retirements do afford Governors some opportunity for judicial appointments, and the Commission urges them to use their appointive powers to increase the number of Mexican American judges.

#### Recommendation 4—Department of Justice

The Department of Justice, including the Federal Bureau of Investigation, should take affirmative action under its continuing equal employment opportunity program both to hire additional Mexican Americans in the Southwest and particularly to train and promote their present Southwestern Mexican American employees into supervisory and professional level positions. The Civil Service Commission should review and evaluate the equal employment opportunity of the Department of Justice to ensure that this program will:

... provide the maximum feasible opportunity to employees to enhance their skills so they may perform at their highest potential and advance in accordance with their abilities; ...<sup>17</sup>

#### Justification

The employment statistics furnished the Commission on Civil Rights by the Department of Justice clearly show the disparity that exists in the middle and higher grades categories, which include supervisors, lawyers, and other professional personnel. Virtually no Spanish surnamed employees are found in any of these categories.

Robert E. Hampton, Chairman of the United States Civil Service Commission, stated on August 8, 1969:

Despite significant gains in overall employment of minority group persons in the Federal service, too many of our minority employees are concentrated at the lower grade levels, victims of inadequate education and discrimination. ...

On this same date, August 8, 1969, President Nixon issued Executive Order 11478, which restated the long standing Federal Government policy of equal employment opportunity, pointing out that each department and agency had the duty and responsibility of establishing and maintaining affirmative action programs designed to achieve the goals of equal employment opportunity. In this same Executive order, the President ordered the Civil Service Commission to provide leadership and guidance in the operations of such programs, and to review and evaluate such programs periodically to determine their effectiveness.

#### FOOTNOTES

<sup>1</sup> Staff interview.

<sup>2</sup> Albuquerque T. at 193-94.

<sup>3</sup> See introduction, p. x.

<sup>4</sup> Telephone interview with Charles Sierra, Advisor to the Director, Los Angeles Human Relations Bureau, June 4, 1969.

<sup>5</sup> Los Angeles City Personnel Department—Fair Employment Practices Survey, 1967-68.

<sup>6</sup> Telephone interview with Jack Casford, Human Relations Analyst, San Francisco Human Rights Commission, June 4, 1969.

<sup>7</sup> San Francisco has a number of Filipinos and persons from Central and South America the majority of whom have Spanish surnames. *Id.*

<sup>8</sup> *Hearing before the U.S. Commission on Civil Rights, San Francisco, Calif., May 1-3, 1967, and Oakland, Calif., May 4-6, 1967, at 823.*

<sup>9</sup> U.S. Commission on Civil Rights. *For ALL the People . . . By ALL the People, A Report on Equal Opportunity in State and Local Government Employment.* (1969) [hereinafter cited as *For ALL the People*] at 25.

<sup>10</sup> On Aug. 17, 1968, the Commission's California State Advisory Committee held a meeting on administration of justice problems in Los Angeles. One of the Committee members, Daniel L. Fernandez, questioned city councilman Thomas Bradley about the physical requirements for police recruits and what could be done to make them less restrictive. Councilman Bradley responded:

"The Civil Service Commission establishes the standards, but they take directions from the police department. For a long time Chief Parker was unwilling to drop the minimum height from five-ten down to five-nine, and finally down to five-eight. This was a long and agonizing fight that went on. Now, I have not seen that the officers . . . were handicapped by the fact that their height was reduced. There was a time when they have—I've forgotten the exact number of teeth, but the question was asked one time, 'What are they going to do, bite people?'"

Councilman Bradley further pointed out that at one time the police department required that a recruit have a four-inch chest expansion, and that one almost had to be a good athlete to meet this standard. He concluded his comments on physical requirements by observing, "I think the reduction in the height from five-eight to five-seven would not impair the ability of the officer to do his job. They don't need muscle and massiveness so much as they need tact." *Los Angeles T.* at 106-08.

<sup>11</sup> Twenty-four responses showed applications from Mexican Americans amounted to between 11 to 25 percent of the total; 12 responses indicated that Mexican American applicants constituted between 26 to 50 percent of the total; 10 responses indicated that the Mexican American applicants constituted between 51 to 75 percent of the total; and 12 responses indicated that more than 75 percent of their applicants were Mexican Americans.

<sup>12</sup> Los Angeles T. at 39. Arthur Garcia of the Police Malpractice Complaint Center of the Los Angeles American Civil Liberties Union, stated that Mexican American police officers are often more brutal than Anglo officers in their treatment of Mexican Americans. Both Luce and White expressed the belief that this is one way in which the Mexican American officer tries to show Anglo officers that he thinks as they do and is not prejudiced in favor of his own people. *Id.* at 61, 71-72.

<sup>13</sup> Staff interview.

<sup>14</sup> Staff interview.

<sup>15</sup> Roswell T. at 157-58.

<sup>16</sup> Sixteen of the 141 responses came from cities in the 100,000 to 250,000 population category. Only one response indicated that an announcement had been made in a Spanish newspaper and only three indicated that Spanish radio and television stations had been utilized. Cities in the category of 50,000 to 100,000 population accounted for 18 of the responses; of the 18 agencies only two had made announcements in the local Spanish language newspapers, and only one had used the local Spanish language radio and TV stations.

<sup>17</sup> Unlike police departments, which use the merit system for appointment and promotion, many deputy sheriffs are hired on the

basis of political patronage with merit and qualifications considered to be of secondary importance.

<sup>18</sup> Staff interviews with representatives of sheriffs' offices.

<sup>19</sup> Staff interview.

<sup>20</sup> Staff interview.

<sup>21</sup> Staff interview.

<sup>22</sup> Staff interview.

<sup>23</sup> San Antonio Hearing at 717, 726.

<sup>24</sup> *Id.* at 719.

<sup>25</sup> *Id.* at 728.

<sup>26</sup> San Antonio Express & News, Dec. 15, 1968 at 3-A.

<sup>27</sup> *Id.*

<sup>28</sup> Report of the Advisory Commission on Civil Disorders at 165.

<sup>29</sup> *Id.* at 166.

<sup>30</sup> *For ALL the People* at 121-23.

<sup>31</sup> *Id.* at 72.

<sup>32</sup> *Id.* at 72-73.

<sup>33</sup> Section 301(b) and 406(b) of the Omnibus Crime Control and Safe Streets Act of 1968.

<sup>34</sup> *For ALL the People* at 74.

<sup>35</sup> *Id.* at 75.

<sup>36</sup> *Id.* at 76.

<sup>37</sup> Sec. 2, E.O. 11478, Aug. 8, 1969.

#### EXHIBIT 2

#### SPECIAL ANALYSES OF THE U.S. GOVERNMENT, FISCAL YEAR 1973

In 1973, Federal aid to State and local governments will total \$43.8 billion. This amount will be \$4.4 billion more than in 1972—a 12% increase in 1 year, and five times the amount in 1963. Since 1968, major progress has been made in restructuring Federal aid programs to increase their flexibility and effectiveness. Proposals in the President's 1973 legislative program call for even greater changes:

Sharing Federal revenues with State and local governments in the form of unrestricted General Revenue Sharing, and six broad purpose special revenue sharing programs without matching requirements.

Reforming the welfare system to provide national eligibility standards, improved work incentives, broaden coverage to the working poor, and eventual fiscal relief to the State.

Strengthening the grant-in-aid delivery system through the Federal Assistance Review program (FAR), including: decentralizing decisionmaking to Federal field offices; and expanding the Integrated Grant Administration program from four to 24 major projects, thus enabling State and local governments to apply for several related grants through a single application.

The fastest growing major Federal aid programs in 1973, as in each of the years since 1969, are those related to law enforcement, income support, services for the poor, and environmental protection.

#### HISTORICAL PERSPECTIVES

Federal aid to State and local governments has been a part of the American federal system since the country's earliest days. Under the Articles of Confederation, Congress provided grants of Federal land in 1785 to support education in the Northwest Territory.

Although Federal grants have a long history, the major growth in the number of grant programs and amounts of money provided has occurred only in the past two decades. The composition of the total grant program has changed significantly since 1960, as shown in table P-1. The functions comprising human resource programs—education and manpower, health, and income security—show a rapid growth during the 1960-73 period, rising from 47% of Federal aid in 1960 to an expected 55% in 1973. On the other hand, commerce and transportation programs declined from 43% of the total in 1960 to 14% in 1973.

TABLE P-1.—PERCENTAGE DISTRIBUTION OF FEDERAL AIDS TO STATE AND LOCAL GOVERNMENTS BY FUNCTION

Function	Actual					1973 estimate
	1950	1955	1960	1965	1970	
Agriculture and rural development.....	5	8	4	5	3	2
Natural resources and environment.....	2	3	2	2	3	4
Commerce and transportation.....	21	19	43	40	21	14
Community development and housing.....	(1)	3	3	5	11	10
Education and manpower.....	11	14	10	10	18	17
Health.....	5	4	4	7	15	11
Income security.....	55	47	33	29	26	27
General revenue sharing.....						11
Other.....	1	2	1	2	3	4
Total.....	100	100	100	100	100	100

<sup>1</sup> Less than 0.5%.

While Federal grants have been growing, State and local governments presently raise from their own sources about four times the amount of aid they receive from the Federal Government.

TABLE P-2.—STATE AND LOCAL GOVERNMENT FINANCES, CALENDAR YEARS 1951 AND 1971

[Dollars in billions]			
Source	1951	1971	Average annual percentage increase
Revenue:			
Own revenue.....	\$18.8	\$114.8	9.5
Federal aid.....	2.3	26.9	13.1
Total.....	21.1	141.7	10.0
Expenditures.....	22.3	141.7	9.7

Note: This table is based on the National Income Accounts to permit comparison between levels of government, and differs slightly from the measure of aid used in other parts of this analysis. For a more complete discussion of different measures of aid, see the section on definitions in this analysis.

#### STATE AND LOCAL FISCAL PROBLEMS

State and local governments have been faced with critical financial problems in recent years. An imbalance has existed between the need for higher levels of public services and funds available to finance these services. State and local government receipts from their own sources (excluding Federal grants) rose from a war-time low of 4.8% of GNP in 1944 to 11% in 1971, but the need for expanded services and the cost of providing these services rose even faster.

State and local governments rely principally on consumer and property taxes, which have not grown at a rate sufficient to keep up with the growth in demand for public services. Thus, States have been forced to raise tax rates frequently—instituting new taxes or raising tax rates in more than 514 instances since 1959, and 64 instances in 1971 alone. These latter actions will augment tax receipts by about \$5 billion. This is significantly larger than the \$1.3 billion and \$2.5 billion added to State tax receipts in 1965 and 1967, and the record \$4 billion in 1969. It was only through drastic budget cutting, and tax increases, that State and local governments achieved an estimated surplus of \$25 million in 1971.

The response of the Federal Government to the fiscal problems of State and local governments has been to increase Federal grants from 71 programs and \$2 billion in 1950 to 530 programs and \$24 billion in 1970. The results have been that while Federal grants

have paid for several services previously paid for from State and local revenues, such as a highway network, this rapid growth has been accompanied by many problems, including: Overlapping programs at the State and local level;

Program delays and uncertainty caused by unnecessarily detailed and costly application requirements;

Unnecessary limitations on the authority and responsibilities of Governors, mayors, county executives, and city managers;

The creation of competitive State and local governmental institutions; and

Rigid funding arrangements which are unable to adjust to changes in priorities over time, such as matching fund requirements.

While Federal grant programs were aimed at problems deemed by their sponsors to be of national interest, they often ignored their impact on the strength and ability of the State and local governments to carry out their own particular responsibilities.

#### REFORM OF THE GRANT SYSTEM

In recognition of these problems, the administration has proposed basic reforms in Federal Government programs and institutions, and in the structure of Federal aid to State and local governments. These changes embrace three basic concepts: sorting out appropriate governmental roles, improving the basic programs, and modernizing management.

Basic reform is being undertaken in such major functional areas as welfare, pollution control, unemployment insurance, and mass transit. The proposed welfare reform should help to alleviate the financial pressures on State and local governments after it is enacted and should provide substantial savings in the long run. It will also be a major step toward reducing poverty in America. An Environmental Financing Authority has been proposed which will assist financing expanded pollution control facilities for those communities which are unable to borrow for this purpose at reasonable interest rates. The administration has also designed the first fundamental reform of the unemployment compensation system since the 1930's.

A long-needed overhaul of management processes in Federal aid and other programs is being carried out. The regional boundaries of the major domestic departments of the Federal Government have been modified so that their headquarters cities and the regions that they cover conform. This facilitates cooperation between Federal agencies and makes it easier for grant recipients since the agencies' regional offices are in the same cities. A new Office of Intergovernmental Relations was created in the Office of the Vice President. In order to foster better decision-making on the whole range of domestic programs, the administration has established a Domestic Council, which provides a forum for considering all of the various Federal activities and functions that affect the States and their subdivisions, and reorganized the Bureau of the Budget into the Office of Management and Budget.

Government operations are being simplified and decentralized in several ways—through revised grant program procedures, through a proposed overhaul of the manpower training programs, and most importantly, through the introduction of revenue sharing. In the grant area, the administration has also recommended legislation that would:

Authorize the President to consolidate closely related programs;

Simplify funding of those grant programs that are closely related and in the same agency;

Authorize joint funding of projects across agency lines; and

Offer assistance to Governors and mayors in improving their policy planning and im-

plementation capacity in social welfare programs.

#### REVENUE SHARING

One of the most innovative and far-reaching reforms of the federal system is the proposal for a program of sharing Federal revenue with State and local governments. In describing the revenue sharing program, the President stated: "The time has come for a new partnership between the Federal Government and the States and localities—a partnership in which we entrust the States and localities with a larger share of the Nation's responsibilities, and in which we share our Federal revenues with them so that they can meet those responsibilities."

The major characteristics of the administration's revenue sharing plan are:

A new program of General Revenue Sharing with State and local governments without any program or project restrictions with the amount granted to grow each year as the personal income tax base of the Federal Government grows;

Six special revenue sharing programs for State and local governments in special broadly defined areas of national concern, without any requirement of matching funds or Federal approval of project plans; and

Maintenance of those existing grant programs for which there is a clear, continuing national requirement.

The major features of the General Revenue Sharing proposal are:

**Predictability.**—The amounts to be shared will be based on 1.3% of the personal income tax base.

**Expanding scale.**—Because of the natural growth in the base, the absolute amounts are proposed to rise from a budget authority of \$5.3 billion and outlays of \$5 billion in 1973 to an estimated \$10 billion in outlays for 1980.

**Unconditional.**—Revenue sharing funds will not be tied to specific programs because the funds are for use by State and local governments in accordance with their program priorities. The allocation of funds will be based on formulas prescribed by law and linked to data prepared on a regular basis by the Census Bureau. No costly, time-consuming applications will be required.

**Distribution by need and effort.**—The amount to be shared with any given State will be based on State population, adjusted for combined State and local revenue effort. States with greater relative revenue effort will get more than they would otherwise.

**Guaranteed funds for cities and counties.**—To place a minimum guarantee on the share of funds that cities, counties, and townships will receive, the administration's bill stipulates that States must "pass through" to each such local jurisdiction its appropriate share.

**Special revenue sharing** will consist of six broad-purpose programs providing State and local governments with funds for use in the functional area for which they are designated—transportation, education, urban and rural community development, manpower training, and law enforcement. The proposed effective dates for two of these programs—education and urban community development is July 1, 1972. These funds will be distributed on the basis of formulas appropriate for each broad program area. Funds for special revenue sharing will come from the conversion of a set of narrower categorical grants into the new program, and from additional funds requested by the President.

Characteristically, the programs recommended for conversion to special revenue sharing deal with high priority national problems which require State and local solutions. In these areas, State and local governments are in a better position to design and implement responsive and effective programs. Eliminating Federal administration of these



programs will relieve State and local governments of many Federal requirements—including the elimination of matching requirements on the categorical grants converted to special revenue sharing. Federal civil rights requirements will be retained.

TABLE P-3.—REVENUE SHARING, BUDGET AUTHORITY, 1ST FULL YEAR

Description	Billions
General revenue sharing.....	\$5.3
Special revenue sharing:	
Urban community development.....	2.3
Rural community development.....	1.1
Education.....	3.2
Manpower training.....	2.0
Law enforcement.....	.9
Transportation.....	2.8
Total.....	17.6

## SIGNIFICANT FEATURES OF FEDERAL AID IN 1973

Federal aid expenditures for grants and shared revenues will grow from \$29.8 billion in 1971 to \$43.5 billion in 1973. In addition, there will be an estimated \$1.9 billion in loan disbursements resulting in \$309 million of net lending to State and local governments. This does not include the lending activity that is being encouraged in the non-Federal sector with Federal interest subsidies and guarantees.

In total, Federal aid programs provided about 18% of State and local revenues in 1971, and will provide an even greater percentage in 1972 and 1973. The largest portion of direct Federal aid is administered by the Department of Health, Education, and Welfare. Due to extreme fiscal pressures on State and local governments, in 1972 the department will make an advance payment to those governments of about \$1 billion for welfare payments and services.

## SPECIAL ANALYSES

TABLE P-4.—FEDERAL-AID EXPENDITURES BY AGENCY

[In millions of dollars]

Agency	1971 actual	1972 estimate	1973 estimate
Funds appropriated to the			
President.....	1,468.2	1,286.4	1,064.3
Department of Agriculture.....	3,198.3	3,916.0	4,223.2
Department of Commerce.....	184.9	174.6	206.1
Department of Defense—			
Military.....	34.2	36.2	45.6
Department of Defense—			
Civil.....	6.9	5.0	3.0
Department of Health, Education, and Welfare.....	14,650.9	18,511.6	17,665.4
Department of Housing and Urban Development.....	2,140.2	2,573.7	3,502.4
Department of the Interior.....	296.7	405.8	441.8
Department of Justice.....	195.8	361.5	501.7
Department of Labor.....	1,866.1	2,918.8	3,465.4
Department of State.....	5.4	5.7	7.8
Department of Transportation.....	4,882.5	5,143.5	5,524.3
Department of the Treasury.....	143.2	2,409.9	5,169.8
Environmental Protection Agency.....	520.0	964.6	1,178.7
Veterans Administration.....	19.0	21.2	24.4
District of Columbia.....	139.0	180.0	202.0
Other.....	94.0	165.0	253.0
Total outlays for Federal aid.....	29,844.0	39,079.8	43,478.9

Note: Detail may not add to totals due to rounding.

Apart from direct Federal aid, many other Federal activities that are not included in this analysis affect the finances of State and local governments. For example, the exemption of interest on State and local bonds from Federal income taxes reduced interest costs to State and local governments by \$2.0 billion in 1971. This exemption results in about \$3.0 billion in "lost" revenues to the

U.S. Treasury. Similarly, since taxpayers may deduct State and local taxes from Federal taxable income, a portion of State and local taxes is offset by a reduction in the taxpayers' Federal liability. In 1971, the value of this deduction in terms of tax savings to individuals was approximately \$8.5 billion. In addition, in 1971 the Federal Government donated an estimated \$405 million in excess property to State and local governments for civil defense, public health, and educational purposes. The Federal Government has also donated Federal land for State and local recreation uses, such as for parks and beaches. It is estimated that between 1971 and 1973 the Federal Government will have donated 40,000 acres, worth over \$56 million, to State and local governments.

TABLE P-5.—FEDERAL-AID OUTLAYS IN RELATION TO TOTAL FEDERAL OUTLAYS AND TO STATE-LOCAL REVENUE

Fiscal year	Federal aid			
	As a percent of—			
	Amount (millions)	Total Federal outlays	Domestic Federal outlays <sup>1</sup>	State-local revenue
1959.....	\$6,669	7.2	15.9	12.3
1960.....	7,040	7.6	16.4	11.6
1961.....	7,112	7.3	15.4	11.0
1962.....	7,893	7.4	15.8	11.3
1963.....	8,634	7.8	16.5	11.6
1964.....	10,141	8.6	17.9	12.4
1965.....	10,904	9.2	18.4	12.4
1966.....	12,960	9.7	19.2	13.2
1967.....	15,240	9.6	19.5	14.2
1968.....	18,599	10.4	20.9	15.8
1969.....	10,255	11.0	21.3	15.3
1970.....	23,954	12.2	21.9	15.9
1971.....	29,844	14.1	23.5	17.9
1972 estimate.....	39,080	16.5	25.8	21.1
1973 estimate.....	43,749	17.6	27.0	21.1

<sup>1</sup> Excluding outlays for defense, space, and international programs.<sup>2</sup> "Governmental Finances in 1969-70." Bureau of the Census.

## THE IMPACT OF FEDERAL AID

The rapid increase in Federal aid has become an increasingly important factor in the finances of all levels of government. Federal aid has risen from 7.8% of total Federal outlays in 1963 to an estimated 17.6% in 1973. In terms of civilian domestic programs, 27.0% of Federal outlays will take the form of aids to State and local governments in 1973. Because State and local revenues from their own sources have increased at a much more rapid rate than Federal outlays, the impact of the relative increase in Federal aid has not been quite as marked on their budgets as it has been on the Federal budget. Nevertheless, Federal aid has risen as a proportion of State and local revenues, from 12% in 1960 to an estimated 18% in 1971.

The pattern of State and local spending has been influenced by those Federal grants that require the recipient government to match Federal aid funds with its own resources. In 1966, State and local governments provided an estimated \$5.5 billion of their own funds to match the \$13 billion of Federal grants spent in that year. In the last few years, State and local government matching funds have accounted for about 10% of general expenditures out of their own revenue sources. This could amount to an estimated \$11 to \$13 billion in 1971, and an estimated \$13 to \$16 billion in 1973. The elimination of matching requirements for the programs absorbed by special revenue sharing will save State and local governments about \$4.2 billion and allow them greater freedom in the use of their resources.

In 1970, the distribution of Federal aids on a regional basis ranged from a high of more than \$5 billion in the Southeast and Mid-

east, to a low of \$0.77 billion in the Rocky Mountain area. On a per capita basis, however, the Rocky Mountain area ranked highest with grant payments of \$154 per capita, while the Great Lakes with \$82 and Plains region with \$104 per capita were lowest. Population density and per capita income are the two major factors that accounted for this wide variation. Generally, the level of per capita aid is inversely related to population density primarily because of aid for highway construction and shared revenues to thinly populated Western States. The population density of the Rocky Mountain area is the lowest of the regions, the holdings of Federal lands are extensive and per capita aid is the highest. At the other end of the scale, per capita aid is lower in the regions where population density is greatest, and Federal land holdings are small.

TABLE P-6.—REGIONAL DISTRIBUTION OF FEDERAL AID, FISCAL 1970

Region	Total (millions)	Per capita	Percent of State and local government revenue
New England.....	\$1,406	\$118.65	18.4
Midwest.....	5,180	122.22	16.7
Great Lakes.....	3,329	82.70	13.5
Plains.....	1,707	104.55	17.1
Southeast.....	5,299	120.96	23.8
Southwest.....	2,013	121.68	22.1
Rocky Mountain.....	770	153.92	23.1
Far West.....	4,013	148.55	17.3
United States.....	23,954	117.89	18.6

Sources: "Federal Aid to States—Fiscal year 1970." Department of the Treasury, and "Governmental Finances in 1969-70." Bureau of the Census. These reports provide additional information concerning State distribution of Federal grants.

Per capita aid is also inversely related to per capita income. There are two reasons for this relationship. Some grant programs require lower matching ratios for the relatively poorer States. Other programs such as those for public assistance and elementary and secondary education, are designed as aids to the disadvantaged and tend to flow to States having proportionately more individuals with lower incomes. This reflects the growing impact of fiscal equalization provisions characteristic of a number of the more recent grant programs. For a State-by-State, program-by-program accounting of Federal grants, see the forthcoming Treasury Department publication "Federal Aid to States—Fiscal Year 1971".

Within the rising total of Federal assistance to State and local governments, another important qualitative shift is taking place—the increasing emphasis on urban areas. Between 1960 and 1970, the major population growth in America occurred in the metropolitan complexes. Today, about 70% of the population lives in 268 metropolitan areas. In 1973, approximately \$31.5 billion of the \$43.5 billion of total Federal grants will be spent in, or directly affect, standard metropolitan statistical areas (SMSA's). This is an increase of about \$27 billion, or nearly 700% over the amount of aid provided to these urban areas in 1961, and \$17.4 billion in the last 4 years. The major increases in Federal grants for urban areas occurred in law enforcement and public assistance.

SMSA areas include the bulk of that urban population which places heavy pressure on public service requirements—areas where population growth and population density are high. The amounts shown in table P-7 are estimates based on the best information available.

TABLE P-7. FEDERAL-AID OUTLAYS IN SMSA AREAS

Function and program	1961 actual	1964 actual	1969 actual	1973 estimate	Function and program	1961 actual	1964 actual	1969 actual	1973 estimate
National defense.....	10	28	30	38	Education and manpower—Continued				
Agriculture and rural development:					Vocational education.....	28	29	179	480
Donation of surplus commodities.....	128	231	313	446	Employment security.....	303	344	449	745
Other.....	27	40	104	115	Emergency employment assistance.....				1,082
Natural resources and environment:					Manpower activities.....		64	530	1,115
Environmental protection.....	24	8	79	884	Other.....	3	7	77	879
Other.....	30	10	101	200	Health: <sup>1</sup>				
Commerce and transportation:					Health services and planning.....	48	66	109	252
Economic development.....		158	104	152	Health services delivery.....	47	82	219	437
Highways.....	1,398	1,948	2,225	2,842	Mental health.....	4	8	77	254
Airports.....	36	36	83	160	Preventive health services.....				35
Urban mass transportation.....			122	351	Medical assistance.....		140	1,731	2,104
Other.....	1	5	5		Health manpower.....			107	256
Community development and housing:					Other.....		4	54	
Urban community development revenue sharing.....				1,450	Income security:				
Community action and related programs.....			432	531	Vocational rehabilitation.....	37	61	247	521
Urban renewal.....	106	559	786	750	Public assistance.....	1,170	1,450	3,022	5,985
Public housing.....	105	136	257	770	Child nutrition, special milk and food stamps.....	131	168	482	1,983
Water and sewer facilities.....		36	52	98	Other.....	3	16	148	77
Model Cities.....			8	590	General government:				
Other.....	2	17	75	567	Law enforcement.....			17	440
Education and manpower:					National Capital region.....	25	38	85	202
Education revenue sharing.....				177	Other.....		9	27	216
Head Start and Follow Through.....			256	270	Other functions.....		2		14
Elementary and secondary.....	222	264	1,262	1,520	General Revenue Sharing.....				3,500
Higher education.....	5	14	210	81	Total, aids to urban areas.....	3,893	5,588	14,045	31,468

<sup>1</sup> Tentative estimate; excludes outlays in 1973 from programs planned for conversion to special revenue sharing.

<sup>2</sup> See footnote 5 to table P-9.

<sup>3</sup> Tentative estimated impact calculated on the basis of population includes both direct pass-through and discretionary State allocations.

## TYPES OF GRANTS

Federal aid to State and local governments, as reflected in budget outlays, take several forms: grants; shared revenues, usually counted as grants; and loans. Shared revenues (not to be confused with the President's revenue sharing programs) are payments of a share of Federal revenues from a particular source—such as receipts from timber sales—which are paid to State and local governments. These payments are frequently in lieu of taxes which would be paid if the Federal land were privately held. Grants are nonrepayable resources provided by the Federal Government in support of a State or local program of service to the public.

In practice, there are two types of grants—those with "strings" attached, or conditional grants, and those with "no strings" attached, or unconditional grants. Only the former type is presently in use in the United States, but the President's revenue sharing proposal is designed to change this.

Conditional grants may be divided into project grants and formula grants. Project

grants are a relatively recent development in the United States and are designed to meet specific problems. That is, a project grant is given for a specific program need, such as demonstration grants for education. The recipient must take the initiative in applying for the grant, and it is up to the discretion of the granting agency whether or not the particular project merits funding. Project grants accounted for an estimated \$9.4 billion in 1969 and \$11.7 billion in 1970 of total Federal aid.

In contrast, formula grants are allocated to all eligible jurisdictions for selected functions on the basis of some formula. The formula criteria may include the fiscal capacity of the recipient government, total or relevant population in the area, such as the number of poor people, or both. Hospital construction grants, and special revenue sharing programs are examples of formula grants.

Matching requirements on Federal grants specify the portion of the project or program cost that the recipient is required to provide in order to receive the Federal grant. Matching requirements vary widely depend-

ing on the program. For some programs, the matching rates are uniform for recipient governments. In other cases, differential rates have been established so that governments with lower fiscal capacity are required to meet lower matching requirements than those with higher fiscal capacity.

Revenue sharing, a third type of grant, has been discussed in another part of this analysis.

Three different statistical series showing Federal aid to State and local governments are produced by the Federal Government. Table P-8 shows the principal differences between these three series over a 6-year period.

As the table indicates, there is a growing divergence between the series shown in this analysis and the other series. The principal cause of this divergence over these years was the treatment of payments by the Office of Economic Opportunity, research payments, and the distribution of surplus agricultural commodities. Although these payments will be relatively stable in the years 1970-72, the continued growth of food stamps will continue to widen this gap.

TABLE P-8.—3 MEASURES OF FEDERAL AID TO STATE AND LOCAL GOVERNMENTS 1965-70

(In billions of dollars)

	1965	1966	1967	1968	1969	1970		1965	1966	1967	1968	1969	1970
Budget (Special Analysis P).....	10.9	13.0	15.2	18.6	20.3	24.0	Federal payments (Census).....	11.1	13.1	15.0	18.1	19.4	23.3
Principal exclusions:							Exclude low-rent public housing.....	-2	-2	-2	-3	-3	-4
Agricultural commodities.....	-5	-3	-3	-5	-7	-5	All other (net).....	(1)	-2	(1)	-1	.3	-4
Food stamps.....	(1)	-1	-1	-2	-2	-6							
Certain OEO payments.....	(1)	-2	-5	-8	-8	-8	Grants-in-aid (National Income Accounts).....	10.9	12.7	14.8	17.8	19.4	22.5
Add payments for research.....	.9	.9	1.0	1.1	1.1	1.2							
All other (net).....	-2	-2	-3	-1	-3	(1)							

<sup>1</sup> Less than \$50,000,000.

(See: Special Analysis A.)

The series used in this analysis is focused on showing Federal aid for programs either operated directly by State or local governments or coordinated through or approved by State agencies. It includes outlays whether cash payments or in-kind, and includes aid to Governments of Puerto Rico and the Virgin Islands. The basic focus is on programs aimed to serve the public but not directly administered by the Federal Government. Therefore, it excludes payments for purchases of services to the Federal Government, such as research conducted by public universities.

Both the census and the national income accounts (NIA) definitions of grants are

designed to match their other definitions for data encompassing the entire economy. They exclude payments to private, nonprofit agencies even if coordinated under a State plan, since this money is reported in the private sector. The principal example of this is OEO, where a considerable amount of money the budget includes as grants goes to private nonprofit entities.

Both the census and the NIA definitions exclude payments in-kind from grants—such as commodities donated under the school lunch program—and also exclude payments to territories or possessions. However, they focus on cash payments, so payments for research conducted by public universities

are included in their data, as the universities are included as part of the State/local sector in their various tabulations. These payments are not considered grants in this analysis.

There are various other—relatively minor—differences between the three series. The one major outlay included in the budget and census series but excluded from the NIA series is payments for low-rent public housing, which the NIA counts as purchases by the Federal Government rather than grants.

Further information on the NIA series may be found in Special Analysis A.



TABLE P-9.—FEDERAL AID TO STATE AND LOCAL GOVERNMENTS <sup>1</sup>

[Expenditures in millions of dollars]

Agency and program	Functional code	1971 actual	1972 estimate	1973 estimate	Agency and program	Functional code	1971 actual	1972 estimate	1973 estimate
<b>National defense:</b>					<b>Commerce and transportation—Continued</b>				
Department of Defense—Military:					Department of Transportation:				
Civil defense shelters and financial assistance	051	25.7	29.9	37.3	Forest and public lands highways	503	22.4	32.8	37.4
Construction of Army National Guard centers	051	8.4	6.2	8.3	Highway beautification	503	9.4	28.9	38.7
Atomic Energy Commission	058	7.6	4.8	4.7	Highway safety	503	68.9	85.0	84.0
Total, national defense		41.7	40.9	50.3	Federal-aid highways (trust fund)	503	4,562.8	4,595.5	4,801.3
<b>International affairs and finance:</b>					Urban mass transportation facilities	503	154.1	261.3	352.7
Department of State:					Federal aid for airports and airways <sup>2</sup>	501	61.5	131.0	200.0
East-West Cultural and Technical Interchange Center	153	5.4	5.7	7.1	Other	503	3.6	7.4	4.0
International Center, Washington, D.C.	151			.7	Total, commerce and transportation		5,299.3	5,604.8	6,016.6
Total, international affairs and finance		5.4	5.7	7.8	<b>Community development and housing:</b>				
<b>Agriculture and rural development:</b>					Funds appropriated to the President:				
Department of Agriculture:					Office of Economic Opportunity:				
Commodity Credit Corporation and Consumer and Marketing Service: Removal of surplus agricultural commodities and value of commodities donated	351	387.4	638.2	714.9	Community action programs	551	714.7	655.9	656.9
Rural water and waste disposal facilities	352	35.9	53.2	48.8	Department of Housing and Urban Development:				
Mutual and self-help housing	352	.1	2.5	3.0	Model city grants	551	320.3	439.2	622.0
Rural housing for domestic farm labor	352	3.5	4.0	3.0	Urban renewal	551	1,025.9	1,000.0	1,000.0
Resource conservation and development	354	11.7	15.7	19.7	Open space land and urban beautification	551	38.8	69.4	79.9
Consumer protective programs	355	28.9	20.6	32.6	New community assistance	551		2.0	3.7
Cooperative agricultural extension service	355	133.6	149.7	154.6	Grants for basic water and sewer facilities	551	120.6	130.0	150.0
Water Bank Act Program	354		1.9	2.9	Grants for neighborhood facilities	551	22.5	35.0	35.0
Agricultural Research Service	355	1.3	1.4	1.4	Urban planning grants	551	49.5	49.5	91.3
Cooperative State Research Service	355	67.3	74.8	79.9	Community development training programs	551	2.8	3.0	3.0
Total, agriculture and rural development		659.7	972.0	1,060.9	Low-rent public housing programs	555	558.6	844.9	1,026.4
<b>Natural resources:</b>					Urban community development revenue sharing	552			* 490.0
Department of Agriculture:					Total, community development housing		2,853.8	3,228.9	4,158.4
Watershed protection and flood prevention	401	73.7	87.3	96.2	<b>Education and manpower:</b>				
Grants for forest protection, utilization, and basic scientific research	402	20.8	27.2	25.7	Funds appropriated to the President:				
National forest and grassland funds: payments to States and counties (shared revenue)	402	72.2	57.5	86.8	Office of Economic Opportunity <sup>4</sup>	601	401.5	202.7	25.1
Assistance to States for tree planting	402	.7	.8	.8	Department of Health, Education, and Welfare:				
Department of Defense—Civil: Corps of Engineers:					Elementary and secondary education	601	1,797.9	1,872.4	1,868.1
Flood control	401	4.2	2.2		Education revenue sharing	604			* 110.0
Payments to States, Flood Control Act of 1954 (shared revenue)	401	2.7	2.8	3.0	Assistance to schools in federally affected areas	601	492.6	473.1	432.7
Department of the Interior:					Education of the handicapped	601	29.0	40.2	37.2
Payments to States and counties (shared revenue)	402	85.1	90.7	97.9	Civil rights education	601	6.9	9.1	8.8
Bureau of Reclamation	401		.8	.9	Higher education activities (Portion to private institutions)	602	308.7	223.2	125.0
Mine drainage and solid waste disposal	403	(*)	.2	.3	Vocational education	603	(86.3)	(53.3)	(27.3)
Fish and wildlife restoration and management	405	44.9	62.3	62.1	Libraries and community services	605	409.9	507.8	545.0
Outdoor recreational areas (Land and Water Conservation Fund)	405	62.0	110.0	129.0	Educational renewal	605	71.4	77.4	90.8
Preservation of historic properties	405	1.3	6.2	7.7	National Foundation for Higher Education	602	112.0	128.0	143.1
Office of Water Resources Research	401	8.3	8.5	8.7	Work incentive activities	607		1.0	30.0
Federal Power Commission: Payments to States (shared revenue)	401	(*)	(*)	.2	Emergency school assistance	601	122.8	186.7	261.6
Tennessee Valley Authority: Payments in lieu of taxes (shared revenue)	401	20.0	25.7	29.0	Department of Labor:				
Water Resources Council	401	3.5	3.6	3.4	Manpower development and training activities	607	51.4	89.6	313.4
Environmental Protection Agency	401	520.0	964.6	1,179.0	Grants to States for administration of employment security programs (trust fund)	607	1,107.1	1,428.8	1,495.8
Total, natural resources		920.4	1,450.4	1,731.7	Emergency employment assistance	607	759.0	831.7	887.0
<b>Commerce and transportation:</b>					Department of Interior: Bureau of Indian Affairs:				
Funds appropriated to the President:					Education and welfare services	601	21.4	22.7	24.4
Public works acceleration	507	.4	1.7		National Foundation on the Arts and the Humanities	608	4.9	6.4	6.9
Appalachian development	507	229.3	279.4	285.6	Corporation for Public Broadcasting	605	23.0	35.0	45.0
Department of Commerce:					Equal Employment Opportunities Commission	609	1.1	1.3	2.5
State marine schools	502	.5	.5	.5	Other		1.5	9.6	2.7
Regional development	507	2.0	6.6	20.4	Total, education and manpower		5,721.9	6,797.5	7,537.8
Promotion of tourism	506		.6	1.4	<b>Health:</b> <sup>5</sup>				
National Bureau of Standards	506	2.2	.5		Mental health:				
National Oceanic and Atmospheric Administration	506	4.5	4.5	4.5	Development of health resources	651	105.4	115.0	110.4
Economic development assistance	507	175.6	166.5	183.8	Prevention and control of health problems	652	60.1	109.4	211.1
Department of the Interior: Resources management	507	2.0	2.6	2.3	Health services planning and development (Portion to private, nonprofit institutions)	651	341.5	317.3	327.9
							(156.2)	(133.2)	(107.9)
					Health services delivery	652	330.1	469.1	496.6
					Preventive health services	653	5.1	7.1	49.4
					Health manpower	651	262.5	253.2	298.4
					Medical assistance	652	3,362.3	4,400.9	3,432.5
					Total, health		4,467.0	5,672.0	4,926.3

Footnotes at end of table.

TABLE P-9.—FEDERAL AID TO STATE AND LOCAL GOVERNMENTS<sup>1</sup>—Continued

[Expenditures in millions of dollars]

Agency and program	Functional code	1971 actual	1972 estimate	1973 estimate	Agency and program	Functional code	1971 actual	1972 estimate	1973 estimate
Income security:					General government:				
Funds appropriated to the President:					Department of the Interior:				
Disaster relief.....	703	122.3	146.8	96.6	Grants to territories.....	909	59.5	85.9	88.8
Department of Health, Education, and Welfare:					Internal revenue collections, Virgin Islands (shared revenue).....	909	13.2	15.6	16.7
Income maintenance payments.....	702	5,527.5	7,196.9	6,884.9	Department of Justice: Law enforcement assistance.....	908	195.8	361.9	501.7
Social services for welfare recipients.....	703	743.9	1,439.5	1,192.3	Treasury Department: Tax collections for Puerto Rico (shared revenue).....	909	84.9	90.0	95.0
Vocational rehabilitation.....	703	507.5	587.6	694.3	National Capital region:				
Department of Agriculture:					Federal payment to District of Columbia.....	909	139.0	180.0	202.0
Food stamp.....	702	1,536.5	2,022.1	2,274.8	Washington Metropolitan Transit Agency.....		34.8	89.4	163.7
Child nutrition program and special milk.....	702	831.7	749.1	679.1	Other.....		58.3	69.9	74.8
Social Security Administration:					Total, general government.....		585.5	892.8	1,142.7
Special benefits for miners.....	701	.9	1.7		General revenue sharing.....	940		2,250.0	5,000.0
Total, income security.....		9,270.3	12,143.7	11,822.0	Total, grants and shared revenues.....		29,844.0	39,079.8	43,478.9
Veterans benefits and services:									
Veterans' Administration:									
Aid to State homes.....	804	15.5	16.6	18.5					
Grants for construction of State nursing homes.....	804	2.9	4.0	5.3					
Administrative expenses.....	804	.6	.6	.6					
Total, veterans benefits and services.....		19.0	21.2	24.4					

<sup>1</sup> Grants-in-aid unless otherwise specified. Excludes loans which are shown separately in table P-10.<sup>2</sup> Federal funds in 1970; trust funds in 1971 and 1972.<sup>3</sup> Amounts added to categorical programs folded into special revenue sharing.<sup>4</sup> Manpower programs transferred to Labor Department.<sup>5</sup> Health services planning and development incorporates health services research and development, regional medical programs, and medical facilities construction. Health services delivery incorporates comprehensive health planning and services, maternal and child health, and patient care and special health services.<sup>6</sup> Less than \$100,000.

TABLE P-10.—FEDERAL LOANS TO STATE AND LOCAL GOVERNMENTS

Agency and program	Disbursements			Net outlays			Agency and program	Disbursements			Net outlays		
	1971 actual	1972 estimate	1973 estimate	1971 actual	1972 estimate	1973 estimate		1971 actual	1972 estimate	1973 estimate	1971 actual	1972 estimate	1973 estimate
Natural resources:							Education and manpower:						
Department of the Interior:							Department of Health, Education, and Welfare: Higher education activities.....	17.7	11.6	4.1	15.5	9.8	4.5
Reclamation loans.....	6.5	15.7	17.0	5.0	14.0	15.2	Department of Housing and Urban Development: College housing.....	79.7	55.8	49.5	48.3	23.2	15.9
Total, natural resources.....	6.5	15.7	17.0	5.0	14.0	15.2	Total, education and manpower.....	97.4	67.4	53.6	63.8	32.0	20.4
Commerce and transportation:							General government:						
Department of Commerce:							Department of Defense—Civil.....				-.4	-.4	-.4
Economic development assistance.....	16.6	20.7	16.6	13.2	15.7	12.3	Department of the Interior:						
Department of Transportation:							Administration of territories.....	2.5	7.0	5.0	2.2	6.5	4.3
Mass transportation facilities.....				-.2	-.2	-.2	General Services Administration: General activities.....	91.9	217.8	217.8	-8.3	-1.1	-1.2
Right-of-way revolving fund.....	32.9	51.0	55.0	32.9	51.0	55.0	District of Columbia.....	91.9	217.8	217.8	57.5	167.3	166.0
Total commerce and transportation.....	49.5	71.7	71.6	45.9	66.5	67.1	Total, general government.....	94.4	224.8	222.8	51.0	172.3	168.7
Community development and housing:							Total.....	1,535.9	1,818.2	1,921.8	177.2	332.8	309.3
Department of Housing and Urban Development:													
Low-rent public housing fund.....	710.2	825.0	900.0	-.1	10.0	10.0							
Housing management:													
Revolving fund.....	1.5			1.5	-1.0	-7.2							
Community development.....	576.4	613.6	656.8	10.1	39.0	35.1							
Total, community development and housing.....	1,288.1	1,438.6	1,556.8	11.5	48.0	37.9							

## EXHIBIT 3

## STATES WITH ANTI-DISCRIMINATION STATUTES COVERING STATE EMPLOYMENT (33 STATES INCLUDING DISTRICT OF COLUMBIA)

Arizona, California, Colorado, Connecticut, Delaware, Florida, Illinois, and Idaho.  
 Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, and Minnesota.

Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York<sup>1</sup>, Ohio, and Oklahoma.

Oregon, Pennsylvania, Utah, Washington, West Virginia, Wisconsin,\* Wyoming, and District of Columbia.

<sup>1</sup> By interpretation.

## SUMMARY OF COVERAGE

## Number of States covered

Specifically covered by legislation.....	31
Covered by interpretation of legislation.....	2
Total.....	3
[Not Covered by Legislation]	
Covered by Governor's Code.....	2
Not mentioned in Act of code.....	5
No Statute or code.....	11
Total.....	18

Grand Total.....<sup>2</sup> 51

## Other information—Age

States with specific statutory coverage of State employment with regard to age discrimination.....	5
States with specific exclusion.....	0

<sup>2</sup> Louisiana and North Dakota have age discrimination laws which make no mention of the State as an employer. Both have no other fair employment coverage. For this report they are included among those states with no act or code.

<sup>3</sup> Total of 51 States includes the District of Columbia.

## COVERED

I. States specifically covering state employment under the terms of their fair em-



ployment practice legislation: (total of 27).  
1. Arizona—Arizona Civil Rights Act (effective 7/20/65).

(a) "employer" means . . . the term shall include the state and any political subdivision thereof. (Sec. 41-1461. Definitions.)

2. California—California Fair Employment Practice Act (effective 11/8/67).

Sec. 1413(d) "employer", except as hereinafter provided, includes . . . the State or any political or civil subdivision thereof and cities. (California FEPA)

3. Colorado—Colorado Anti-Discrimination Act of 1957, as amended (effective 5/6/65).

(2) "Person" shall mean the State of Colorado and all political subdivisions and agencies thereof . . . (5) "employer" shall mean the State of Colorado or any political subdivision or board, commission, department, institution or school district thereof . . . (Colorado Anti-Discrimination Act of 1957 Sec. 80-21-2. Definitions)

4. Connecticut—Connecticut Fair Employment Practice Act (effective 5/19/67), amended 6/29/67).

(b) "Person" shall mean the state and all political subdivisions and agencies thereof . . . (f) "employer" includes the state and political subdivisions thereof . . . (Conn. FEPA, Sec. 31-122. Definitions)

5. Idaho—Idaho Fair Employment Practices Act (effective 5/2/61).

(a) "every person" shall be construed to include this state and its political subdivisions, boards and commissioners, engaged in or exercising control over the operation of any place of public resort, accommodations, assemblage or amusement. (Sec. 2, Chap. 309, Laws of Idaho 1961).

6. Illinois—Illinois Fair Employment Practices Act (approved 7/21/61. Last amendment effective 7/21/68).

(d) "employer" includes and means . . . (ii) the state and any political subdivisions, municipal corporation or other governmental unit or agency thereof, without regard to the number of employees . . . (Sec. 2(d) (ii) Illinois FEPA)

7. Indiana—Indiana Civil Rights Act (last amendment approved 3/11/67).

The term "employer" includes the state, or any political or civil subdivision thereof, and any person employing six or more persons within the state . . . (last amendment approved 3/11/67)

8. Iowa—Iowa Civil Rights Act of 1965 (effective 5/7/65).

(1), (2) "person" means . . . and the State of Iowa and all political subdivisions and agencies thereof.

(5) "employer" means the State of Iowa or any political subdivision, board, commission, department, institution, or school district thereof . . . (Sec. 2 ICRA).

9. Kansas—Kansas Act Against Discrimination (approved 4/13/61).

(b) the term "employer" includes . . . and the State of Kansas and all political and municipal subdivisions thereof . . . (Sec. 44-1002).

10. Kentucky—Kentucky Civil Rights Act (effective 7/1/66).

(a) "Person includes" . . . the State, any of its political or civil subdivisions or agencies . . . (Sec. 201).

11. Massachusetts—Massachusetts Fair Employment Practices Act (effective 7/27/67).

(1) the term "person" includes . . . the commonwealth and all political subdivisions, boards and commissioners thereof . . . (Sec. 1).

(5) the term "employer" . . . shall include the commonwealth and all political subdivision, boards, departments, and commissions thereof.

12. Michigan—Michigan Fair Employment Practices Act (approved 6/29/55).

(b) the term "employer" includes the State

or any political civil or subdivision thereof, (Sec. 423.302 definitions).

13. Minnesota—Minnesota State Act Against Discrimination (effective 7/1/5).

"Person" includes . . . and the State and its departments, agencies, and political subdivisions . . . (Subd. 7, AAD).

14. Missouri—Missouri Fair Employment Practices Act of 1961 (effective 10/13/61).

(3) "employer" includes the state, or any political or civil subdivision thereof. (Sec. 296.010 FEPA).

15. Montana—Montana Fair Employment Practices Act (approved 3/6/65).

(a) "Every person" shall be construed to include any owner, lessee, proprietor, manager, agent or employee whether one or more natural persons, partnerships, associations, organizations, corporations, cooperatives, legal representatives, trustees, receivers, of this state and its political subdivisions, boards and commissions, engaged in or exercising control over the operation of any place of public resort, accommodation, assemblage or amusement.

16. Nebraska—Nebraska Fair Employment Practices Act (effective, as amended, October 23, 1967).

(Copy of the most recent Nebraska amendment not available at the time of this writing. Amendment covers the State and its political subdivisions, as confirmed by a telephone call to Emmett Dennis, Executive, Director, Nebraska Equal Employment Opportunity Commission on March 5, 1968.)

17. Nevada—Nevada Fair Employment Practices Act (effective 7/1/67).

(4) "person" includes . . . the State of Nevada or any of its political subdivisions, as well as a natural person.

18. New Hampshire—New Hampshire Law Against Discrimination (effective 9/5/65).

(1) the term "person" includes . . . and the State and all political subdivisions, boards and commissions thereof . . . (5) term "employer" does not include . . . but shall include the State and all political subdivisions, boards, departments and commissions thereof. (Sec. 354-A:3, L.A.D.).

19. New Mexico—New Mexico Equal Employment Opportunity Act (effective 6/10/49).

(b) the term "employer" includes the State, or any political subdivision thereof . . . (Sec. 59-4-3 EEO Act).

20. Ohio—Ohio Fair Employment Practices Act (effective 12/9/67).

(b) "employer" includes the state or any political or civil subdivision thereof. (Sec. 4112.01 FEP).

21. Oklahoma—Fair Employment Practices Act (effective 6/27/63).

It is hereby prohibited for any department or agency of the State of Oklahoma, or any official employees of the same for or on behalf of the State of Oklahoma.

The Oklahoma FEP Act provides that complaints may be filed with the State Personnel Board which is empowered to make investigations and hold hearings. The Human Rights Commission may file a complaint with the Board and appear before it also.

Oklahoma—Civil Rights Act (effective 5/17/69) Sec. 201(5) "person" includes . . . the state or any governmental entity or agency.

22. Pennsylvania—Pennsylvania Human Relations Act (effective 1/26/68).

(b) the term "employer" includes the commonwealth or any political subdivision or board, department, commission or school district thereof . . .

23. Utah—Utah Discrimination Act of 1965 (effective 5/11/65).

(2) "Person" shall mean the State of Utah and political subdivisions and agencies thereof . . .

(5) "employer" shall mean the State of Utah or any political subdivision, board, commission, department, institution or

school district thereof . . . (Sec. 34-17-2. Definitions, Anti-Discrimination).

24. Washington—Washington Law Against Discrimination in Employment (approved 3/19/49).

"Person" includes any political subdivisions of the state and any agency or instrumentality of the state or of any political subdivision thereof . . . (Sec. 49.60.040 L.A.D.).

25. West Virginia—West Virginia Human Rights Act (effective 7/1/67).

(d) the term "employer" means the state, or any political subdivision thereof, (Sec. 5-11-3 HRA).

26. Wyoming—Wyoming Fair Employment Practice Act of 1965.

(2) "employer" shall mean the State of Wyoming or any political subdivision or board, commission, department, institution or school district thereof, (sec. 2, FEP).

27. District of Columbia—District Police Regulations (Order No. 61-846, 5/9/61).

28. Delaware—Fair Employment Practices Act amendments (approved by Governor 7/15/71).

"Employer includes the State or any political subdivision or board, department, commission or school district thereof and any person employing four or more persons within the State . . ."

29. Oregon—Fair Employment Practice Act as amended (effective 8/23/69).

(6) "Employer" means any person, including state agencies, political subdivisions and municipalities, who in this state, directly or through an agent, engages or utilized the personal service of one or more employees."

II. States with laws not mentioning the state as an employer which includes such coverage by interpretation

1. New York (a)—Law Against Discrimination (effective as amended, 6/1/67).

2. Wisconsin (b)—Fair Employment Practices Act (effective as amended, 12/21/67).

(a) Confirmed by an Attorney General's Opinion issued February 14, 1946.

(b) Commission interpretation confirmed by telephone call to Steve Reilly, Executive Secretary, March 5, 1968.

III. States which cover statement employment only by Governor's Code

1. Alaska (except age discrimination, which is covered specifically by statute)—Governor's Code of Fair Practices for State Agencies (Article I, Para. I).

2. New Jersey—Governor's Code of Fair Practices (Article I).

IV. States which include reference to state government, with limitations on enforcement

1. Maryland—Maryland Anti-Discrimination Act (effective 6/1/67).

18(b) "the term "employer" means a person engaged in an industry or business who has twenty-five or more employees . . . and any agency of such a person; such term does include the State of Maryland to the extent as may be provided in this Article. . . ."

11B. "No officer or employee of a State agency, department or board shall discriminate in the hiring, firing or discriminate in any other manner against any person because of race, creed, color, sex, age or national origin; provided however, that no employment practice not unlawful under Sections 17, 18, and 19 of this Article shall be deemed as unlawful employment practice by the State.

If the Commission has received reliable information from any individual or individuals, and after a proper investigation by the Commission, it shall be determined by the Commission that an officer or employee of a State agency . . . has engaged in discrimination . . . against any person . . . and if the Commission is unsuccessful in resolving the complaint, then the Commission shall

report such act to the Governor, and he shall review the case and findings of the Commission. If the Governor is satisfied that an act of discrimination has taken place, he shall remove or suspend said officer or employee or take such action as he deems appropriate under the circumstances. Provided, however, that any removal, suspension, or other action affecting any officer or employee who is covered by the State Merit System shall be subject to all rules and regulations pertaining thereto. The authority of the Commission relating to discrimination in State agencies, boards or departments shall be limited to investigation, conciliation, mediation and reporting to the Governor as provided in this Sec. 11B.

2. Florida—Fair Employment Practices, amended (effective 6/26/69).

Bars discrimination against State and municipal employees, and says that a complaint of discrimination should be filed with the offending governmental agency for an

administrative hearing, and judicial review, as provided in the State Administrative Procedure Act.

V. The following states have FEP statutes or codes but no mention is made in them of the state:

1. Hawaii.
2. Maine.
3. Rhode Island (covered in Age Law).
4. Tennessee.
5. Vermont.

VI. The following states have no FEP statute or codes covering state employment practices:

1. Alabama.
2. Arkansas.
3. Georgia.
4. Louisiana.
5. Mississippi.
6. North Carolina.
7. North Dakota.
8. South Carolina.

9. South Dakota.
10. Virginia.
11. Texas.

#### OTHER INFORMATION—AGE

VII. States which have specific statutory coverage of state employment with respect to age discrimination:

1. Alaska—has separate age discrimination provisions which became effective 6/5/63. Regular FEP statute does not mention the state.
2. Rhode Island—has separate age discrimination provisions which became effective 4/17/62. Regular FEP statute does not mention the state.
3. Texas—has exclusive age discrimination provisions. No regular FEP statute whatever.
4. Delaware—FEP statute specifically covers age in state employment.
5. Oregon—FEP statute specifically covers age in state employment.

#### U.S. DEPARTMENT OF COMMERCE, BUREAU OF CENSUS

##### PUBLIC EMPLOYMENT IN 1969

TABLE 5.—NUMBER OF PUBLIC EMPLOYEES, BY LEVEL OF GOVERNMENT AND BY STATE: OCTOBER

State	All employees (full-time and part-time)					Full-time equivalent employment of State and local governments					
	State and local governments					Number			Number per 10,000 population <sup>2</sup>		
	All governments	Federal (civilian) <sup>1</sup>	Total	State	Local	Total	State	Local	Total	State	Local
U.S., total	12,553,911	2,837,827	9,716,084	2,613,645	7,102,439	8,159,735	2,179,227	5,980,508	404.1	107.9	296.1
Alabama	205,432	58,092	147,340	44,284	103,056	128,258	37,777	90,491	363.2	106.9	256.2
Alaska	31,996	15,350	16,646	8,837	7,809	14,780	7,962	8,818	524.1	282.3	241.7
Arizona	113,374	27,644	85,730	26,083	59,647	72,195	19,935	52,260	426.4	117.7	308.6
Arkansas	100,545	17,494	83,051	28,005	55,046	70,238	23,113	47,125	352.0	115.8	236.2
California	1,364,131	326,338	1,037,793	230,139	807,654	863,388	191,591	671,797	444.0	98.5	345.5
Colorado	168,397	44,143	124,254	39,951	84,303	100,359	30,605	69,754	477.8	145.7	332.1
Connecticut	144,063	20,065	123,998	41,459	82,539	109,722	37,264	72,458	365.7	124.2	241.5
Delaware	30,282	4,712	25,570	11,343	14,227	23,409	10,666	12,743	433.4	197.5	235.9
District of Columbia	269,982	220,966	49,016		49,016	44,884		44,884	562.4		562.4
Florida	380,216	72,488	307,728	72,420	235,308	275,130	66,597	208,533	433.0	104.8	328.1
Georgia	284,570	79,655	204,915	53,157	151,758	181,359	47,424	133,935	390.7	102.1	288.5
Hawaii	69,472	29,213	40,259	30,305	9,954	35,039	25,389	9,650	441.2	319.7	121.5
Idaho	48,252	8,428	39,824	12,782	27,042	30,701	9,796	10,905	427.5	136.4	291.1
Illinois	621,978	118,339	503,639	122,215	381,424	410,136	97,987	312,149	371.2	88.7	282.5
Indiana	275,179	44,931	230,248	67,331	162,917	188,510	50,540	137,970	368.3	98.7	269.5
Iowa	169,419	18,588	150,831	41,215	109,616	117,857	32,612	85,245	423.7	117.2	306.5
Kansas	154,738	23,988	130,750	39,433	91,317	101,485	29,834	71,651	437.2	128.5	308.7
Kentucky	172,005	38,647	133,358	41,771	91,587	112,695	37,172	75,523	348.6	115.0	233.6
Louisiana	214,036	29,869	184,167	67,507	116,660	158,281	54,001	104,280	422.6	144.1	278.4
Maine	66,919	16,931	49,988	16,543	33,445	39,360	15,312	24,048	402.4	156.5	245.8
Maryland	296,686	124,551	172,135	46,506	125,629	158,791	44,116	114,675	421.7	117.1	304.5
Massachusetts	316,092	68,048	248,044	57,754	190,290	219,675	54,620	165,055	401.8	99.9	301.9
Michigan	494,629	55,275	439,354	115,287	324,067	349,844	88,118	261,726	399.0	100.5	298.5
Minnesota	229,064	29,914	199,150	54,998	144,152	152,939	42,019	110,920	413.3	113.5	299.7
Mississippi	125,660	21,194	104,466	30,295	74,171	88,964	25,742	63,222	376.9	109.0	267.8
Missouri	276,933	68,620	208,313	62,845	145,468	174,248	50,732	123,516	374.6	109.0	265.5
Montana	50,146	10,878	39,268	15,844	23,424	31,302	12,261	19,041	451.0	176.6	274.3
Nebraska	105,901	16,296	89,605	24,968	64,637	71,474	20,588	50,886	493.2	142.0	351.1
Nevada	36,454	9,027	27,427	7,426	20,001	23,930	6,493	17,437	523.6	142.0	381.5
New Hampshire	41,768	5,188	36,580	12,170	24,410	25,498	9,714	15,784	355.6	135.4	220.1
New Jersey	365,724	70,460	295,264	60,364	234,900	253,458	53,263	200,195	354.5	74.5	280.0
New Mexico	83,320	26,974	56,346	22,812	33,534	47,102	18,202	28,900	473.8	183.1	290.7
New York	1,203,820	187,767	1,016,053	192,443	823,610	895,688	177,316	718,372	488.8	96.7	392.1
North Carolina	251,623	38,874	212,749	64,918	147,831	183,043	56,462	126,581	351.6	108.4	243.1
North Dakota	54,005	7,942	46,063	14,139	31,924	27,568	10,264	17,304	448.2	166.8	281.3
Ohio	573,588	105,793	467,795	103,730	364,065	378,955	83,088	295,867	352.8	77.8	275.4
Oklahoma	183,710	57,718	125,992	47,179	78,813	103,075	35,741	67,334	401.3	139.1	262.2
Oregon	139,813	24,936	114,877	40,360	74,517	92,012	30,585	61,427	452.8	150.5	302.2
Pennsylvania	618,041	149,183	468,858	128,488	340,370	403,966	114,458	289,508	342.2	96.9	245.2
Rhode Island	55,131	16,143	38,988	15,747	23,241	33,799	13,466	20,333	371.0	147.8	223.1
South Carolina	144,290	31,314	112,976	34,991	77,985	94,503	30,645	63,858	351.0	113.8	237.2
South Dakota	55,738	9,979	45,759	13,217	32,542	32,217	10,002	22,215	488.8	151.7	337.1
Tennessee	217,312	42,686	174,626	50,893	123,733	157,828	44,474	113,354	396.0	111.6	284.4
Texas	631,514	153,409	478,105	123,161	354,944	421,809	101,124	320,685	377.0	90.3	286.6
Utah	100,968	41,247	59,721	23,022	36,699	44,722	16,410	28,312	427.9	157.0	270.9
Vermont	26,192	8,811	17,381	8,774	8,607	16,818	7,580	9,238	383.0	172.6	210.4
Virginia	348,267	140,798	207,469	74,966	132,503	180,751	64,009	116,742	387.1	137.0	250.0
Washington	248,313	58,100	190,213	64,953	125,260	154,040	51,947	102,093	452.7	152.6	300.0
West Virginia	94,529	13,706	80,823	34,749	46,074	68,265	28,976	39,289	375.2	159.2	215.9
Wisconsin	270,880	26,701	244,179	63,822	180,357	176,529	44,801	131,728	417.0	105.8	311.1
Wyoming	28,814	5,414	23,400	8,134	15,266	19,126	6,434	12,692	597.6	201.0	396.6

<sup>1</sup> Federal civilian employees with the United States as of June 1969. Total accordingly differs from Federal data reported on table 1, which pertain to October 1969 and include employees working outside the United States.

<sup>2</sup> See table 10.

Note: Statistics for local governments are subject to sampling variation; see text. Because of rounding, detail may not add to totals.



HARTFORD, CONN.,  
January 30, 1972.

Senator HARRISON A. WILLIAMS, Jr.,  
Chairman, Committee on Labor and Public  
Welfare, U.S. Senate, Washington, D.C.:

Whereas, the membership of the Association of Official Human Rights Agencies is composed of official state, city and county agencies charged with the responsibility for improving relations between various groups in our society and, particularly, for the elimination of discrimination in, among other areas of national concern the vital field of employment; and

Whereas, many of the member agencies of the aforementioned association have specific responsibility for the elimination of discrimination in employment; and

Whereas, said agencies have come to the realization that their attempts to eliminate such discrimination in employment are substantially more effective where they possess adequate enforcement powers to obtain compliance with laws prohibiting such discrimination; and

Whereas, title VII of the Civil Rights Act of 1964 established the Federal Equal Employment Opportunity Commission and designated it as the Federal agency with responsibility for the elimination of discrimination in employment nationwide; and

Whereas, title VII of the Civil Rights Act of 1964 failed to give the Federal Equal Employment Opportunity Commission adequate enforcement powers to implement this important national mandate of eliminating discrimination in employment; and

Whereas, the international association of official human rights agencies and its member agencies are desirous of establishing a more effective mechanism for the elimination of discrimination in employment,

Be it hereby resolved:

1. The Association of Official Human Rights Agencies supports enforcement with cease and desist power for the Equal Employment Opportunity Commission under title VII of the Civil Rights Act of 1964; and

2. The association supports Senate Bill 2515 of the 92nd Congress, first session, as reported by the Senate Committee on Labor and Public Welfare on October 28, 1971; and

3. The association specifically supports legislation which would give the Federal Equal Employment Opportunity Commission the power to seek direct enforcement of that statute through the conduct of hearings and the issuance of cease and desist orders; and

4. The association specifically opposes weakening amendments to that legislation which would curtail the rights of an individual charging party to file a suit in court if the Equal Employment Opportunity Commission fails to bring enforcement activities; or which would limit the back pay relief available as part of a remedy; or which would circumscribe the rights of EEOC and the Federal courts to provide a remedy eliminating discrimination for an entire class aggrieved by discrimination; or which would provide that any particular proceeding is exclusive for dealing with employment discrimination; or which would limit the right of the Equal Employment Opportunity Commission to control its own litigation in court; or which would circumscribe the right of the Federal Equal Employment Opportunity Commission to initiate a commissioners charge on its own motion; and

5. Specifically, the association supports retention in title VII of the Civil Rights Act of 1964 of the provisions in section 706(b) and (c) thereof which provide that State administrative agencies administering enforceable State legislation prohibiting discrimination in employment shall have a first opportunity to process any charge alleging discrimination in employment; and

6. Directs that this resolution be communicated to the chairman of the Senate Committee on Labor and Public Welfare, the

chairman of the House Committee on Education and Labor and to such other members of Congress as shall be appropriate.

ARTHUR GREEN,  
Chairman,

International Association of Official  
Human Rights Agencies.

MARYLAND V. WIRTZ. SYLLABUS. MARYLAND ET AL. V. WIRTZ, SECRETARY OF LABOR, ET AL.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MARYLAND

No. 742. Argued April 23, 1968.—Decided June 10, 1968.

The Fair Labor Standards Act, as enacted in 1938, required every employer to pay each of his employees "engaged in commerce or in the production of goods for commerce" certain minimum wages and overtime pay. The definition of employer excluded States and their political subdivisions. In 1961 the Act's coverage was extended beyond employees individually connected to interstate commerce to include all employees of certain "enterprises" engaged in commerce or production for commerce. In 1966 the Act was amended to cover certain hospitals, institutions, and schools, and to modify the definition of employer to remove the exemption of the States and their subdivisions with respect to employees of hospitals, institutions, and schools. Appellants, 28 States and a school district, sought to enjoin enforcement of the Act as it applies to schools and hospitals operated by the States or their subdivisions. They argued that the "enterprise concept" of coverage and the inclusion of state-operated hospitals and schools were beyond Congress' power under the Commerce Clause, that the remedial provisions of the Act, if applied to the States, would conflict with the Eleventh Amendment, and that school and hospital enterprises do not have the statutorily required relationship to interstate commerce. A three-judge district court declined to issue a declaratory judgment or an injunction, and concluded that the adoption of the "enterprise concept" and the extension of coverage to state institutions do not, on the face of the Act, exceed Congress' commerce power. That court declined to consider the Eleventh Amendment and statutory relationship contentions.

Held:

1. The "enterprise concept" of coverage is clearly within the power of Congress under the Commerce Clause. Pp. 188-193.

(a) A rational basis for Congress' finding the scheme necessary to the protection of commerce was the logical inference that the pay and hours of employees of an interstate business who are not production workers, as well as those who are, affect an employer's competition with companies elsewhere. *United States v. Darby*, 312 U.S. 100, followed. Pp. 188-191.

(b) Another rational basis is the promotion of labor peace by the regulation of wages and hours, subjects of frequent labor disputes. Pp. 191-192.

(c) The class of employers subject to the Act, approved in *Darby*, *supra*, was not enlarged by the addition of the "enterprise concept." P. 193.

2. The commerce power provides a constitutional basis for extension of the Act to state-operated schools and hospitals. Pp. 193-199.

(a) Congress has "interfered with" state functions only to the extent that it subjects a State to the same minimum wage and overtime pay limitations as other employers whose activities affect commerce. Pp. 193-194.

(b) Labor conditions in schools and hospitals can affect commerce and are within the reach of the commerce power. Pp. 194-195.

(c) Where a State is engaging in economic activities that are validly regulated by the Federal Government when engaged in by pri-

vate persons, the State may be forced to conform its activities to federal regulation. *United States v. California*, 297 U.S. 175. Pp. 195-199.

3. Questions concerning the States' sovereign immunity from suit and whether particular state-operated institutions have employees handling goods in commerce are reserved for appropriate concrete cases. Pp. 199-201.

269 F. Supp. 826, affirmed.

Alan M. Wilner, Assistant Attorney General of Maryland, and Charles Alan Wright argued the cause for appellants. With Mr. Wilner on the brief for appellant the State of Maryland et al. were the Attorneys General for their respective States as follows: Francis B. Burch of Maryland, Crawford C. Martin of Texas, MacDonald Gallion of Alabama, Darrell F. Smith of Arizona, Joe Purcell of Arkansas, Duke W. Dunbar of Colorado, David Buckson of Delaware, Earl Faircloth of Florida, Bert T. Kobayashi of Hawaii, William G. Clark of Illinois, Richard C. Turner of Iowa, Robert C. Londerholm of Kansas, James S. Erwin of Maine, Elliot L. Richardson of Massachusetts, Joe T. Patterson of Mississippi, Norman H. Anderson of Missouri, Clarence A. H. Meyer of Nebraska, Arthur J. Sills of New Jersey, Boston E. Witt of New Mexico, T. Wade Bruton of North Carolina, Heigl Johanneson of North Dakota, William B. Saxbe of Ohio, G. T. Blankenship of Oklahoma, Daniel R. McLeod of South Carolina, Frank L. Farrar of South Dakota, James L. Oakes of Vermont, Robert Y. Button of Virginia, and James E. Barrett of Wyoming; and A. J. Carubbi, Jr., Executive Assistant Attorney General of Texas, Hawthorne Phillips, Assistant Attorney General of Texas, and James V. Noble, Assistant Attorney General of New Mexico. With Mr. Wright on the brief for appellant the State of Texas were Messrs. Martin, Carubbi, and Phillips, and Nola White, First Assistant Attorney General. Cecil A. Morgan filed a brief for appellant Fort Worth Independent School District.

Solicitor General Griswold argued the cause for appellees. With him on the brief were Assistant Attorney General Welsl, Louis F. Claiborne, John S. Martin, Jr., and Morton Hollander.

Briefs of amici curiae, urging affirmance, were filed by J. Albert Woll, Laurence Gold, and Thomas E. Harris for the American Federation of Labor and Congress of Industrial Organizations, and by Henry Kaiser and Ronald Rosenberg for the American Federation of State, County, and Municipal Employees, AFL-CIO.

Mr. JUSTICE HARLAN delivered the opinion of the Court.

As originally enacted,<sup>1</sup> the Fair Labor Standards Act of 1938 required every employer to pay each of his employees "engaged in commerce or in the production of goods for commerce"<sup>2</sup> a certain minimum hourly wage, and to pay at a higher rate for work in excess of a certain maximum number of hours per week. The Act defined the term "employer" so as to exclude "the United States or any State or political subdivision of a State . . ."<sup>3</sup> This case involves the constitutionality of two sets of amendments to the original enactment.

In 1961, Congress changed the basis of employee coverage: instead of extending protection to employees individually connected to interstate commerce, the Act now covers all employees of any "enterprise" engaged in commerce or production for commerce, provided the enterprise also falls within certain listed categories.<sup>4</sup> In 1966, Congress added to the list of categories the following:

"(4) is engaged in the operation of a hospital, an institution primarily engaged in the care of the sick, the aged, the mentally ill or defective who reside on the premises of such

Footnotes at end of article.

institution, a school for the mentally or physically handicapped or gifted children, an elementary or secondary school, or an institution of higher education (regardless of whether or not such hospital, institution, or school is public or private or operated for profit or not for profit)."

At the same time, Congress modified the definition of "employer" so as to remove the exemption of the States and their political subdivisions with respect to employees of hospitals, institutions, and schools.<sup>6</sup>

The State of Maryland, since joined by 27 other States and one school district, brought this action against the Secretary of Labor to enjoin enforcement of the Act insofar as it now applies to schools and hospitals operated by the States or their subdivisions. The plaintiffs made four contentions. They argued that the expansion of coverage through the "enterprise concept" was beyond the power of Congress under the Commerce Clause. They contended that coverage of state-operated hospitals and schools was also beyond the commerce power. They asserted that the remedial provisions of the Act,<sup>7</sup> if applied to the States, would conflict with the Eleventh Amendment. Finally, they urged that even if their constitutional arguments were rejected, the court should declare that schools and hospitals, as enterprises, do not have the statutorily required relationship to interstate commerce.

A three-judge district court, convened pursuant to 28 U.S.C. § 2282, declined to issue a declaratory judgment or an injunction.<sup>8</sup> Three opinions were written. Judges Winter and Thomsen, constituting the majority, concluded for different reasons that the adoption of the "enterprise concept" of coverage and the extension of coverage to state institutions could not be said, on the face of the Act, to exceed Congress' power under the Commerce Clause. Both declined to consider the Eleventh Amendment and statutory contentions. Judge Northrop dissented, concluding that the amendments exceeded the commerce power because they transgressed the sovereignty of the States.

We noted probable jurisdiction of the plaintiffs' appeal, 389 U.S. 1031. For reasons to follow, we affirm the judgment of the District Court.

# I

We turn first to the adoption in 1961 of the "enterprise concept." Whereas the Act originally extended to every employee "who is engaged in commerce or in the production of goods for commerce," it now protects every employee who "is employed in an enterprise engaged in commerce or in the production of goods for commerce."<sup>9</sup> Such an enterprise is defined as one which, along with other qualifications, "has employees engaged in commerce or in the production of goods for commerce . . . ." <sup>10</sup> Thus the effect of the 1961 change was to extend protection to the fellow employees of any employee who would have been protected by the original Act, but not to enlarge the class of employers subject to the Act.

In *United States v. Darby*, 312 U.S. 100, this Court found the original Act a legitimate exercise of congressional power to regulate commerce among the States. Appellants accepted the *Darby* decision, but contend that the extension of protection to fellow employees of those originally covered exceeds the commerce power. We conclude, to the contrary, that the constitutionality of the "enterprise concept" is settled by the reasoning of *Darby* itself and is independently established by principles stated in other cases.

*Darby* involved employees who were engaged in producing goods for commerce. Their employer contended that since manufacturing is itself an intrastate activity, Congress had no power to regulate the wages and

hours of manufacturing employees. The first step in the Court's answer was clear: "[Congress may] by appropriate legislation regulate intrastate activities where they have a substantial effect on interstate commerce."<sup>11</sup>

The next step was to discover whether such a "substantial effect" existed. Congress had found that substandard wages and excessive hours, when imposed on employees of a company shipping goods into other States, gave the exporting company an advantage over companies in the importing States. Having so found, Congress decided as a matter of policy that such an advantage in interstate competition was an "unfair" one, and one that had the additional undesirable effect of driving down labor conditions in the importing States.<sup>12</sup> This Court was of course concerned only with the finding of a substantial effect on interstate competition, and not with the consequent policy decisions. In accepting the congressional finding, the Court followed principles of judicial review only recently rearticulated in *Katzbach v. McClung*, 379 U.S. 294, 303-304:

"Of course, the mere fact that Congress has said when particular activity shall be deemed to affect commerce does not preclude further examination by this Court. But where we find that the legislators . . . have a rational basis for finding a chosen regulatory scheme necessary to the protection of commerce, our investigation is at an end."<sup>13</sup>

There was obviously a "rational basis" for the logical inference that the pay and hours of production employees affect a company's competitive position.

The logical inference does not stop with production employees. When a company does an interstate business, its competition with companies elsewhere is affected by all its significant labor costs, not merely by the wages and hours of those employees who have physical contact with the goods in question. Consequently, it is not surprising that this Court has already explicitly recognized that Congress' original choice to extend the Act only to certain employees of interstate enterprises was not constitutionally compelled; rather, Congress decided, at that time, "not to enter areas which it might have occupied [under the commerce power]." *Kirschbaum Co. v. Walling*, 316 U.S. 517, 522.

The "enterprise concept" is also supported by a wholly different line of analysis. In the original Act, Congress stated its finding that substandard labor conditions tended to lead to labor disputes and strikes, and that when such strife disrupted businesses involved in interstate commerce, the flow of goods in commerce was itself affected.<sup>14</sup> Congress therefore chose to promote labor peace by regulation of subject matter, wages, and hours, out of which disputes frequently arise. This objective is particularly relevant where, as here,<sup>15</sup> the enterprises in question are significant importers of goods from other States.

Although the Court did not examine this second objective in *Darby*, other cases have found a "rational basis" for statutes regulating labor conditions in order to protect interstate commerce from labor strife. The National Labor Relations Act<sup>16</sup> had been passed because "[t]he denial by employers of the right of employees to organize and the refusal by employers to accept the procedure of collective bargaining lead to strikes and other forms of industrial strife or unrest, which have the intent or the necessary effect of burdening or obstructing commerce . . . ." <sup>17</sup>

In *Labor Board v. Jones & Laughlin*, 301 U.S. 1, this Court held that the National Labor Relations Act (NLRA) was within the commerce power. The essence of the decision was contained in two propositions: "the stoppage of those [respondent's] operations by industrial strife would have a most serious

effect upon interstate commerce," *id.*, at 41; and "[e]xperience has abundantly demonstrated that the recognition of the right of employees to self-organization and to have representatives of their own choosing for the purpose of collective bargaining is often an essential condition of industrial peace." *Id.*, at 42.

The Fair Labor Standards Act, including the present "enterprise" definition of coverage, may also be supported by two propositions. One is identical with the first proposition supporting the NLRA: strife disrupting an enterprise involved in commerce may disrupt commerce. The other is parallel to the second proposition supporting the NLRA: there is a basis in logic and experience for the conclusion that substandard labor conditions among any group of employees, whether or not they are personally engaged in commerce or production, may lead to strife disrupting an entire enterprise.

Whether the "enterprise concept" is defended on the "competition" theory or on the "labor dispute" theory, it is true that labor conditions in businesses having only a few employees engaged in commerce or production may not affect commerce very much or very often. Appellants therefore contend that defining covered enterprises in terms of their employees is sometimes to permit "the tail to wag the dog." However, while Congress has in some instances left to the courts or to administrative agencies the task of determining whether commerce is affected in a particular instance, *Darby* itself recognized the power of Congress instead to declare that an entire class of activities affects commerce.<sup>18</sup> The only question for the courts is then whether the class is "within the reach of the federal power."<sup>19</sup> The contention that in Commerce Clause cases the courts have power to excise, as trivial, individual instances falling within a rationally defined class of activities has been put entirely to rest. *Wickard v. Filburn*, 317 U.S. 111, 127-128; *Polish Alliance v. Labor Board*, 322 U.S. 643, 648; *Katzbach v. McClung*, *supra*, at 301. The class of employers subject to the Act was not enlarged by the addition of the enterprise concept. The definition of that class is as rational now as it was when *Darby* was decided.

# II

Appellants' second contention is that the commerce power does not afford a constitutional basis for extension of the Act to schools and hospitals operated by the States or their subdivisions. Since the argument is made in terms of interference with "sovereign state functions," it is important to note exactly what the Act does. Although it applies to "employees," the Act specifically exempts any "employee employed in a bona fide executive, administrative, or professional capacity (including any employee employed in the capacity of academic administrative personnel or teacher in elementary or secondary schools)." . . . <sup>20</sup> We assume, as did the District Court,<sup>21</sup> that medical personnel are likewise excluded from coverage under the general language.

The Act establishes only a minimum wage and a maximum limit of hours unless overtime wages are paid, and does not otherwise affect the way in which school and hospital duties are performed. Thus appellants' characterization of the question in this case as whether Congress may, under the guise of the commerce power, tell the States how to perform medical and educational functions is not factually accurate. Congress has "interfered with" these state functions only to the extent of providing that when a State employs people in performing such functions it is subject to the same restrictions as a wide range of other employers whose activities affect commerce, including privately operated schools and hospitals.<sup>22</sup>

It is clear that labor conditions in schools and hospitals can affect commerce. The facts

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stipulated in this case indicate that such institutions are major users of goods imported from other States. For example:

"In the current fiscal year an estimated \$38.3 billion will be spent by State and local public educational institutions in the United States. In the fiscal year 1965, these same authorities spent \$3.9 billion operating public hospitals. . . .

"For Maryland, which was stipulated to be typical of the plaintiff States, 87% of the \$8 million spent for supplies and equipment by its public school system during the fiscal year 1965 represented direct interstate purchases. Over 55% of the \$576,000 spent for drugs, X-ray supplies and equipment and hospital beds by the University of Maryland Hospital and seven other state hospitals were out-of-state purchases." 23

Similar figures were supplied for other States.<sup>24</sup> Strikes and work stoppages involving employees of schools and hospitals, events which unfortunately are not infrequent,<sup>25</sup> obviously interrupt and burden this flow of goods across state lines. It is therefore clear that a "rational basis" exists for congressional action prescribing minimum labor standards for schools and hospitals, as for other importing enterprises.<sup>26</sup>

Indeed, appellants do not content that labor conditions in all schools and hospitals are without the reach of the commerce power, but only that the Act may not be constitutionally applied to state-operated institutions because that power must yield to state sovereignty in the performance of governmental functions. This argument simply is not tenable. There is no general "doctrine implied in the Federal Constitution that the two governments, national and state, are each to exercise its powers so as not to interfere with the free and full exercise of the powers of the other." *Case v. Bowles*, 327 U.S. 92, 101.

In the first place, it is clear that the Federal Government, when acting within a delegated power, may override countervailing state interests whether these be described as "governmental" or "proprietary" in character. As long ago as *Sanitary District v. United States*, 266 U.S. 405, the Court put to rest the contention that state concerns might constitutionally "outweigh" the importance of an otherwise valid federal statute regulating commerce. Congress had imposed statutory limits on the diversion of water from Lake Michigan. A unanimous Court, speaking through Mr. Justice Holmes, declared that the sanitary district's alleged need for more water than federal law allowed was "irrelevant" because federal power over commerce is "superior to that of the States to provide for the welfare or necessities of their inhabitants." *Id.*, at 426. See *Oklahoma v. Atkinson Co.*, 313 U.S. 508.

There remains, of course, the question whether any particular statute is an "otherwise valid regulation of commerce." This Court has always recognized that the power to regulate commerce, though broad indeed, has limits. Mr. Chief Justice Marshall paused to recognize those limits in the course of the opinion that first staked out the vast expanse of federal authority over the economic life of the new Nation. *Gibbons v. Ogden*, 9 Wheat. 1, 194-195. Mr. Chief Justice Hughes, speaking only one Term after he delivered the opinion for the Court in *Jones & Laughlin*, *supra*, put the matter thus:

"The subject of federal power is still 'commerce,' and not all commerce but commerce with foreign nations and among the several States. The expansion of enterprise has vastly increased the interests of interstate commerce but the constitutional differentiation still obtains." *Santa Cruz Co. v. Labor Board*, 303 U.S. 453, 466.

The Court has ample power to prevent what the appellants purport to fear, "the

utter destruction of the State as a sovereign political entity." 27

But while the commerce power has limits, valid general regulations of commerce do not cease to be regulations of commerce because a State is involved. If a State is engaging in economic activities that are validly regulated by the Federal Government when engaged in by private persons, the State too may be forced to conform its activities to federal regulation.

This was settled by the unanimous decision in *United States v. California*, 297 U.S. 175. The question was whether a railroad, operated by the State, and entirely within the State, as a nonprofit venture for the purpose of facilitating transportation at a port, was nevertheless subject, like other railroads, to the Safety Appliance Act. The Court first held that although the railroad operated only between points in California, it was within the reach of federal regulation of interstate rail transportation, 297 U.S., at 181-183. The Court then proceeded to consider the claim that the State "is not subject to the federal Safety Appliance Act," and reasoned as follows:

"[W]e think it unimportant to say whether the state conducts its railroad in its 'sovereign' or in its 'private' capacity. That in operating its railroad it is acting within a power reserved to the states cannot be doubted. The only question we need consider is whether the exercise of that power, in whatever capacity, must be in subordination to the power to regulate interstate commerce, which has been granted specifically to the national government. The sovereign power of the states is necessarily diminished to the extent of the grants of power to the federal government in the Constitution.

"[W]e look to the activities in which the states have traditionally engaged as marking the boundary of the restriction upon the federal taxing power. But there is no such limitation upon the plenary power to regulate commerce. The state can no more deny the power if its exercise has been authorized by Congress than can an individual." 297 U.S., at 183-185 (citations omitted).

See also *Board of Trustees v. United States*, 289 U.S. 48, where the Court rejected a claim of "state sovereignty" and held that a state university that imported scientific apparatus from abroad could be made to pay import duties imposed pursuant to the power over foreign commerce.

The principle of *United States v. California* is controlling here. Appellants' argument that the statute involved there was somewhat more directly and obviously a regulation of "commerce," and that the state activity involved there was less central to state sovereignty, misses the mark. This Court has examined and will continue to examine federal statutes to determine whether there is a rational basis for regarding them as regulations of commerce among the States. But it will not carve up the commerce power to protect enterprises indistinguishable in their effect on commerce from private businesses simply because those enterprises happen to be run by the States for the benefit of their citizens.<sup>28</sup>

### III

Appellants raise two further issues, both of which the District Court found it inappropriate to explore fully in a declaratory judgment proceeding. We agree. In each case we conclude that no showing has been made that warrants declaratory or injunctive relief. In neither instance, however, do we mean to preclude future consideration on the facts of individual cases.

The first question is whether the Act violates the States' sovereign immunity from suit guaranteed by the Eleventh Amendment.<sup>29</sup> The Act provides as follows:

"Any employer who violates the provisions

of section 206 [wages] or section 207 [hours] of this title shall be liable to the employee or employees affected in the amount of their unpaid minimum wages, or their unpaid overtime compensation as the case may be, and in an additional equal amount as liquidated damages. Action to recover such liability may be maintained in any court of competent jurisdiction. . . ." 29 U.S.C. § 216 (b).

The Act also provides for suits by the Secretary of Labor to recover unpaid minimum wages or overtime compensation, 29 U.S.C. § 216(c) and for injunctive relief against violations, 29 U.S.C. § 217.

Percolating through each of these provisions for relief are interests of the United States and problems of immunity, agency, and consent to suit. Cf. *Parden v. Terminal R. Co.*, 377 U.S. 184. The constitutionality of applying the substantive requirements of the Act to the States is not, in our view, affected by the possibility that one or more of the remedies the Act provides might not be available when a State is the employer-defendant. Particularly in light of the Act's "separability" provision, 29 U.S.C. § 219, we see no reason to strike down otherwise valid portions of the Act simply because other portions might not be constitutional as applied to hypothetical future cases. At the same time, we decline to be drawn into an abstract discussion of the numerous complex issues that might arise in connection with the Act's various remedial provisions. They are almost impossible and most unnecessary to resolve in advance of particular facts, stated claims, and identified plaintiffs and defendants. Questions of state immunity are therefore reserved for appropriate future cases.

Appellants' remaining contention presents similar problems. In order to be covered by the Act, an employer hospital or school must in fact have "employees engaged in commerce or in the production of goods for commerce, including employees handling, selling, or otherwise working on goods that have been moved in or produced for commerce by any person . . ." 29 U.S.C. § 203 (s) (1964 ed., Supp. II).

Appellants ask us to declare that hospitals and schools simply have no such employees. The word "goods" is elsewhere defined to exclude "goods after their delivery into the actual physical possession of the ultimate consumer thereof other than a producer, manufacturer, or processor thereof." 29 U.S.C. § 203(i). Appellants contend that hospitals and schools are the ultimate consumers of the out-of-state products they buy, and hence none of their employees handles "goods" in the statutory sense.

We think the District Court was correct in declining to decide, in the abstract and in general, whether schools and hospitals have employees engaged in commerce or production. Such institutions, as a whole, obviously purchase a vast range of out-of-state commodities. These are put to a wide variety of uses, presumably ranging from physical incorporation of building materials into hospital and school structures, to over-the-counter sale for cash to patients, visitors, students, and teachers. Whether particular institutions have employees handling goods in commerce, cf. *Walling v. Jacksonville Paper Co.*, 317 U.S. 564, may be considered as occasion requires.

The judgment of the District Court is Affirmed.

MR. JUSTICE MARSHALL took no part in the consideration or decision of this case.

MR. JUSTICE DOUGLAS, with whom MR. JUSTICE STEWART concurs, dissenting.

The Court's opinion skillfully brings employees of state-owned enterprises within the reach of the Commerce Clause; and as an exercise in semantics it is unexceptionable if congressional federalism is the standard. But what is done here is nonetheless such a serious invasion of state sovereignty protected

by the Tenth Amendment that it is in my view not consistent with our constitutional federalism.

The case has some of the echoes of *New York v. United States*, 326 U.S. 572, where a divided Court held that the Federal Government could tax the sale of mineral waters owned and marketed by New York. My dissent was in essence that the decision made the States pay the Federal Government "for privilege of exercising the powers of sovereignty guaranteed them by the Constitution." 326 U.S., at 596.

The present federal law takes a much more serious bite. The 1966 amendments to the Fair Labor Standards Act require the States to pay school and hospital employees a minimum wage escalating to \$1.60 per hour in 1971.<sup>30</sup> As a general rule, the amendments make the States pay their employees who work over 40 hours a week overtime compensation of 1½ times their regular wage.<sup>31</sup> There are civil sanctions against the State and its political subdivisions,<sup>32</sup> and state officials may apparently be subjected to criminal penalties.<sup>33</sup> The impact is pervasive, striking at all levels of state government. As Judge Northrop said in his dissent below, 269 F. Supp. 826, 852:

"By this Act Congress is forcing, under threat of civil liability and criminal penalties, the state legislature or the responsible political subdivision of the state

"1. to increase taxes (an impossibility in some of the political subdivisions without a state constitutional amendment); or

"2. to curtail the extent and calibre of services in the public hospitals and educational and related institutions of the state; or

"3. to reduce indispensable services in other governmental activities to meet the budgets of those activities favored by the United States Congress; or

"4. to refrain from entering new fields of governmental activity necessitated by changing social conditions."

There can be no doubt but that the 1966 amendments to the Fair Labor Standards Act disrupt the fiscal policy of the States and threaten their autonomy in the regulation of health and education. Yet, the Court considers it irrelevant that these federal regulations are to be enforced against sovereign States and limits its consideration to "whether there is a rational basis for regarding them as regulations of commerce among the States."

The States are not totally immune from federal regulation under the commerce power of Congress. *Parden v. Terminal R. Co.*, 377 U.S. 184, and *United States v. California*, 297 U.S. 175, subjected state-owned railroads to the Federal Employers' Liability Act, 45 U.S.C. § 51 *et seq.*, and the Safety Appliance Act, 45 U.S.C. § 1 *et seq.*; *Board of Trustees v. United States*, 289 U.S. 48, required a state university to pay federal customs duties on educational equipment it imported. In *Oklahoma v. Atkinson Co.*, 313 U.S. 508, the Federal Government was permitted to condemn 100,000 acres of state land for a reservoir to control commerce-paralyzing floods. In *Sanitary District v. United States*, 266 U.S. 405, a State was prohibited from diverting water from the Great Lakes necessary to ensure navigability, a phase of commerce.

In none of these cases, however, did the federal regulation overwhelm state fiscal policy. It is one thing to force a State to purchase safety equipment for its railroad and another to force it either to spend several million more dollars on hospitals and schools or substantially reduce services in these areas. The commerce power cases the Court relies on are simply not appropos.

In the area of taxation, on the other hand, the Court has recognized that the constitutional scheme of federalism imposes limits on the power of the National Government to tax the States. *E. g.*, *New York v. United States*,

326 U.S. 572. The Court will not permit the Federal Government to utilize the taxing power to snuff out state sovereignty, *Metcalfe & Eddy v. Mitchell*, 269 U.S. 514, recognizing that the power to tax is the power to destroy. *McCulloch v. Maryland*, 4 Wheat. 316, 431. The exercise of the commerce power may also destroy state sovereignty. All activities affecting commerce, even in the minutest degree, *Wickard v. Filburn*, 317 U.S. 111, may be regulated and controlled by Congress.

Commercial activity of every stripe may in some way interfere "with the [interstate] flow of merchandise" or interstate travel. *Katzenbach v. McClung*, 379 U.S. 294, 299-300. The immense scope of this constitutional power is demonstrated by the Court's approval in this case of regulation on the basis of the "enterprise concept"—which is entirely proper when the regulated "businesses" are not essential functions being carried on by the States.

Yet state government itself is an "enterprise" with a very substantial effect on interstate commerce, for the States spend billions of dollars each year on programs that purchase goods from interstate commerce, hire employees whose labor strife could disrupt interstate commerce, and act on such commerce in countless subtle ways. If constitutional principles of federalism raise no limits to the commerce power where regulation of state activities are concerned, could Congress compel the States to build superhighways crisscrossing their territory in order to accommodate interstate vehicles, to provide inns and eating places for interstate travelers, to quadruple their police forces in order to prevent commerce-crippling riots, etc.? Could the Congress virtually draw up each State's budget to avoid "disruptive effect[s]" . . . on commercial intercourse? *Atlanta Motel v. United States*, 379 U.S. 241, 257.

If all this can be done, then the National Government could devour the essentials of state sovereignty, though that sovereignty is attested by the Tenth Amendment. The principles which should guide us in this case are set forth in the several opinions in *New York v. United States*, *supra*. As Mr. Chief Justice Stone said there, the National Government may not "interfere unduly with the State's performance of its sovereign functions of government." 326 U.S., at 587. It may not "impair the State's functions of government," *id.*, at 594 (dissenting opinion of Mr. Justice Douglas, joined by Mr. Justice Black). As Mr. Justice Frankfurter observed, "[t]here are, of course, State activities . . . that partake of uniqueness from the point of view of intergovernmental relations." *Id.*, at 582.

Whether, in a given case, a particular commerce power regulation by Congress of state activity is permissible depends on the facts. The Court must draw the "constitutional line between the State as government and the State as trader . . ." *New York v. United States*, *supra*, at 579 (opinion of Mr. Justice Frankfurter). In this case the State as a sovereign power is being seriously tampered with, potentially crippled.

I would reverse the judgment below.

#### FOOTNOTES

<sup>1</sup> 52 Stat. 1060.

<sup>2</sup> §§ 6(a), 7(a), 52 Stat. 1062, 1063.

<sup>3</sup> § 3(d), 52 Stat. 1060.

<sup>4</sup> The minimum wage requirement, 29 U.S.C. § 206 (1964 ed., Supp. II), now reads as follows: "(a) Every employer shall pay to each of his employees who in any workweek is engaged in commerce or in the production of goods for commerce, or is employed in an enterprise engaged in commerce or in the production of goods for commerce, wages at the following rates . . ." The maximum hours requirement, 29 U.S.C. § 207 (1964 ed., Supp. II), now contains a similar definition of covered employees. The term "enterprise engaged in commerce or in the production of goods for commerce" is defined by 29 U.S.C.

§ 203(s) (1964 ed., Supp. II) to mean "an enterprise which has employees engaged in commerce or in the production of goods for commerce, including employees handling, selling, or otherwise working on goods that have been moved in or produced for commerce by any person, and which—[falls in any one of four listed categories] . . ."

<sup>5</sup> 80 Stat. 832, 29 U.S.C. § 203(s) (4) (1964 ed., Supp. II).

<sup>6</sup> 80 Stat. 831, 29 U.S.C. § 203(d) (1964 ed., Supp. II).

<sup>7</sup> 29 U.S.C. §§ 216(b), 216(c), 217.

<sup>8</sup> 269 F. Supp. 826.

<sup>9</sup> U.S.C. §§ 206(a), 207(a) (1964 ed., Supp. II).

<sup>10</sup> 29 U.S.C. § 203(s) (1964 ed., Supp. II).

<sup>11</sup> 312 U.S., at 119. The Act prohibited both the interstate transportation of goods produced under substandard labor conditions, and the maintenance of such conditions themselves. The first prohibition, a restraint on commerce itself, was upheld against the contention that its real motive or purpose was to regulate manufacturing. The language quoted in the text answered a challenge to the second prohibition.

<sup>12</sup> Section 2 of the Act, 52 Stat. 1060, 29 U.S.C. § 202, reads in part as follows:

"The Congress hereby finds that the existence, in industries engaged in commerce or in the production of goods for commerce, of labor conditions detrimental to the maintenance of the minimum standard of living necessary for health, efficiency, and general well-being of workers (1) causes commerce and the channels and instrumentalities of commerce to be used to spread and perpetuate such labor conditions among the workers of the several States; (2) burdens commerce and the free flow of goods in commerce; (3) constitutes an unfair method of competition in commerce. . . ."

<sup>13</sup> In *Katzenbach v. McClung*, it appeared that Congress had undertaken extensive investigation of the commercial need for the statute there involved. A major contention of the appellants in the present case is that the legislative history of the amendments now before us lays no factual predicate for extensions of the original Act. To the extent that this is true, it is quite irrelevant. The original Act stated Congress' findings and purposes as of 1938. Subsequent extensions of coverage were presumably based on similar findings and purposes with respect to the areas newly covered. We are not concerned with the manner in which Congress reached its factual conclusions.

<sup>14</sup> Section 2, 29 U.S.C. § 202, declares in part that the existence of substandard labor conditions "leads to labor disputes burdening and obstructing commerce and the free flow of goods in commerce."

<sup>15</sup> See *infra*, at 194-195.

<sup>16</sup> 49 Stat. 449, as amended, 29 U.S.C. § 151 *et seq.*

<sup>17</sup> § 1, 49 Stat. 449.

<sup>18</sup> 312 U.S., at 120-121.

<sup>19</sup> *Ibid.*

<sup>20</sup> 29 U.S.C. § 213(1) (1964 ed., Supp. II).

<sup>21</sup> See 269 F. Supp., at 832 (opinion of Judge Winter).

<sup>22</sup> In the court below, Judge Thomsen was troubled by the application of the overtime provisions to school and hospital personnel, who may have different arrangements for hours of work than employees of other enterprises. 269 F. Supp., at 851. Congress indicated its attention to this problem in 29 U.S.C. § 207 (1964 ed., Supp. II), which provides special means of computing hospital overtime. That this provision may seem to some inadequate, and that no similar provision was made in the case of schools, are matters outside judicial cognizance. The Act's overtime provisions apply to a wide range of enterprises, with differing patterns of work-time; they were intended to change some of those patterns. It is not for the courts to decide that such changes as may be required



are beneficial in the case of some industries and harmful in others.

<sup>23</sup> 269 F. Supp., at 833 (opinion of Judge Winter).

<sup>24</sup> See *ibid.*

<sup>25</sup> See U.S. Department of Labor, Summary Release, Work Stoppages Involving Government Employees, 1966.

<sup>26</sup> Both under the present Act and the National Labor Relations Act, numerous cases have held that the engagement of an enterprise in interstate commerce may consist of importation. *E. g. Wirtz v. Hardin & Co.*, 253 F. Supp. 579, affd. 359 F. 2d 792 (FLSA); *N. L. R. B. v. Baker Hotel*, 311 F. 2d 528 (NLRA).

<sup>27</sup> The dissent suggests that by use of an "enterprise concept" such as that we have upheld here, Congress could under today's decision declare a whole State an "enterprise" affecting commerce and take over its budgeting activities. This reflects, we think, a misreading of the Act, of *Wickard v. Filburn*, *supra*, and of our decision. The Act's definition of "enterprise" reads in part as follows:

"Enterprise" means the related activities performed (either through unified operation or common control) by any person or persons for a common business purpose . . . but shall not include the related activities performed for such enterprise by an independent contractor. . . ." 29 U. S. C. § 203(r).

We uphold the enterprise concept on the explicit premise that an "enterprise" is a set of operations whose activities in commerce would all be expected to be affected by the wages and hours of any group of employees, which is what Congress obviously intended. So defined, the term is quite cognizant of limitations on the commerce power. Neither here nor in *Wickard* has the Court declared that Congress may use a relatively trivial impact on commerce as an excuse for broad general regulation of state or private activities. The Court has said only that where a general regulatory statute bears a substantial relation to commerce, the *de minimis* character of individual instances arising under that statute is of no consequence.

<sup>28</sup> Nor is it relevant that Congress originally chose to exempt all state enterprises and later partially removed that exemption. Congress was as free to include state activities within the general regulation at a later date as it would have been to omit the exemption in the first place.

<sup>29</sup> "The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State."

<sup>30</sup> 29 U.S.C. §§ 203(d), 206(b) (1964 ed., Supp. II).

<sup>31</sup> 29 U.S.C. § 207(b) (1964 ed., Supp. II). Special rules are applicable to hospitals under § 207(j) based on an 80-hour, 14-day work period. No special rules apply to school employees. See discussion of the overtime pay provisions by Chief Judge Thomsen, 269 F. Supp., at 851-852.

<sup>32</sup> 29 U.S.C. §§ 203(d), 216(b).

<sup>33</sup> 29 U.S.C. §§ 203(a), 215, 216(a).

Mr. WILLIAMS. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. TAFT. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. WILLIAMS. Mr. President, I yield to the Senator from Ohio such time as he may require.

Mr. TAFT. Mr. President, I associate myself with the remarks of the distinguished Senator from New Jersey. I feel very strongly that there is another issue involved that he touched upon, one that, it seems to me, is more important to this amendment, perhaps, than perhaps any other issue that is raised, and that is the exemplary nature of the amendment. In other words, how can we expect patterns of discrimination in private employment to be changed to promote full and equal employment of all Americans if Government itself does not set an example in this regard. It seems clear to me that that example should be set. In fact, I feel very strongly that if any truly effective progress is to be made in this area, it will be made more as a matter of volition, more as a matter of example, than by means of compulsion, even though compulsion, or at least legal endorsement of the principle, may be necessary to effect progress.

What I should like to mention particularly in this regard is that in the committee, with regard to the employing of personnel by State and local governments, there were a good many comments and a great deal of discussion as to whether or not constitutional problems that might occur from the Federal Government's attempting to regulate State and local governments might be serious and might result in some vindictive aspects in the bill itself.

As the Senator from New Jersey has stated, there are already court holdings on this subject. However, we went further than that in our discussions.

The Senator from Missouri offered an amendment, and I and other members of the committee on the minority side, as well, questioned the mechanics under which the Federal Commission might issue orders to a State or a local government. We felt that in order to avoid any problem in that respect, we should establish separate procedures, and this is indicated in the language of the report, page 25, from which I should like to read:

This enforcement scheme provides the necessary power to achieve results without the needless friction that might be created by a Federal executive agency issuing orders to sovereign States and their localities. In short, the committee believes that the objective of equal employment opportunity can best be achieved by providing this particular means of enforcement where State or local governmental units fail to comply with the law.

We required that there be direct access or direct referral to U.S. district court in these cases, rather than to go through the procedures of the commission.

I feel that with that practical problem, whether or not it will be a constitutional problem, having been resolved, the provisions of the bill are desirable and necessary and will achieve, in a measure of time, the exemplary nature of open and equal employment opportunity in State and local governments, an opportunity that is so necessary to the success of this program, overall, and throughout our society.

For that reason, I feel I must oppose

the amendment offered by the distinguished Senator from North Carolina (Mr. ERVIN).

Mr. JAVITS. Mr. President, will the Senator yield?

Mr. TAFT. I yield.

Mr. JAVITS. Mr. President, one thing that interests me greatly, whatever may be our differences with the administration on the question of cease and desist, is that it is a fact that the President's state of the Union message says:

I also support legislation to strengthen the enforcement powers of the EEOC by providing the Commission with authority to seek court enforcement of its decisions and by giving it jurisdiction over the hiring practices of State and local governments.

So I think it is important to point out that the administration itself has this feeling about this particular proposition; and we have findings of fact, which I am sure the Senator from Ohio has discussed, not only of the U.S. Civil Rights Commission, but from our own hearing record, as well, which indicate that this remedial power is needed, so far as actual serious discrimination is concerned, which is of a kind inhibited by the Constitution and statute in respect of State and local employment, since we are dealing with an enormous number of employees—10 million. So it is really a very necessary part of the bill.

I am very grateful that we have support of our position by the Senator from Ohio.

Mr. TAFT. I thank the Senator from New York and certainly concur in his remarks.

Supplementing those remarks, I might read briefly at this point in the same connection from the summary of the Report of the U.S. Commission on Civil Rights, on page 2, under:

#### PATTERNS OF MINORITY GROUP EMPLOYMENT IN STATE AND LOCAL GOVERNMENT

The basic finding of this study is that State and local governments have failed to fulfill their obligation to assure equal job opportunity. In many localities, minority group members are denied access to responsible government jobs and often are totally excluded from employment except in the most menial capacities. In many areas of government, minority group members are excluded almost entirely from decisionmaking positions, and, even in those instances where they hold jobs carrying higher status, these jobs usually involve work only with the problems of minority groups and tend to limit contact largely to other minority group members. Examples include managerial and professional positions in human relations commissions or in welfare agencies.

Mr. ERVIN. Mr. President, will the Senator yield?

Mr. TAFT. I yield.

Mr. ERVIN. The Senator from Ohio, as I understand, was a member of the committee which phrased this bill.

Mr. TAFT. The Senator is correct.

Mr. ERVIN. The Senator from North Carolina has read the bill very carefully and has found that there is no express limitation whatever on the employees of States and political subdivisions of States that are subjected to the jurisdiction of Federal courts under the bill. Can the Senator from Ohio tell me whether there is any implied limit upon the jurisdiction

of Federal courts to ultimately control the employment practices in respect to any State employees or employees of political subdivisions of States?

Mr. TAFT. As far as I know, there is no such limitation. I understand the Senator from North Carolina has an amendment which is pending which would go into the subject further, and I have studied that amendment, and, with certain changes in the amendment, I might well be inclined to go along with the Senator from North Carolina to work out some practical alternatives, but I will not agree to taking out the guts of the particular provision he is attempting to eliminate.

Mr. ERVIN. Is the Senator from North Carolina correct in inferring from the statement just made by the distinguished Senator from Ohio that the bill in its present form would give Federal district courts the ultimate power to compel States and subdivisions of States to yield to their decrees with respect to the employment of persons who exercise the legislative, executive, and judicial powers of the States and political subdivisions of States?

Mr. TAFT. As to elected officers, we certainly think not, under the Constitution of the United States. I think as to elected officers that would not be true. As to any other positions, I believe it would be true.

Mr. ERVIN. Why would it not be true with respect to elected officers, because elected officers are undoubtedly employees of the States, and elected officers of counties are undoubtedly employees of the State and the counties?

Mr. TAFT. The selection process there is by the voters of the State. I do not believe there is any inference in the legislation proposed which would include elected officers. As I have indicated to the Senator from North Carolina, I would be quite willing to go considerably further and perhaps to cover other personnel as well, and to cover those at the top decisionmaking levels in the executive and judicial branch as well.

Mr. ERVIN. Does the Senator from Ohio take the position that an officer of the State is not an employee of that State?

Mr. TAFT. No, I do not take that position. I say there is an inference in the bill that it does not transcend what I think would be the constitutional limitations involved.

Mr. ERVIN. Is it not a fact that constitutional legislation by Congress supersedes the State constitutions and the laws of the States?

Mr. TAFT. It might supersede it if not prescribed in the State constitution. In this case, I believe the State constitution would be the limiting factor that would be involved.

Mr. ERVIN. The U.S. Constitution authorizes the Congress to enact legislation in the form in which this bill is at present, giving Federal courts the ultimate power to determine the employment practices of States with respect to all State employees and the Governors of the States and the supreme court justices of the States and members of the State legislatures, who are employees of the

States, as I understand the Senator has admitted.

Mr. TAFT. I think the Senator from North Carolina well knows, with his tremendous knowledge of the Constitution—and I respect his knowledge of that document more than almost anyone in this body—that the Federal Constitution does guarantee to the States a republican form of government—with the little “r”—this, it seems to me, implying the fact that elected officers can be elected only by the people of the State involved, under its constitution.

Mr. ERVIN. The Constitution of the United States also says that the Constitution and the acts of Congress enacted pursuant thereto will be the supreme law of the land, and, as the supreme law of the land, will supersede all State constitutions and all State laws. If this were a constitutional enactment, then the Federal courts would be given jurisdiction to control the ultimate decision as to who is to be the Governor of a State or the members of the supreme court of the State or the legislators of the State. I think that conclusion is inescapable.

Mr. TAFT. With all due respect to the legal ability and experience of the Senator from North Carolina, I respectfully disagree with that conclusion. I believe the Federal Constitution would be clear on that. In addition, under its interpretation, no court would make a decision that under this bill a Federal commission could require a State to elect a certain individual, because it would deprive that individual or his rights and privileges and immunities, as well as that of all citizens.

Mr. ERVIN. Perhaps the Senator from Ohio will agree with the Senator from North Carolina on one thing: That if the Federal Government is to take the jurisdiction of exercising the ultimate power to determine who the officers and employees of the States are to be, the old statement of Chief Justice Salmon Chase, in *Texas against White*, that the Constitution and all its provisions look to an indestructible Union composed of indestructible States, has ceased to have validity. Is that not correct?

Mr. TAFT. I would not say that. I think the Senator from North Carolina may not have been on the floor when I quoted from a section of the committee report earlier, but there is another section to which I particularly call his attention. I think the question of legislative intent of the committee would control in any event, but I call the Senator's attention to page 11 of the committee report in which it states:

A question as raised in the Committee concerning the application of Title VII in the case of a Governor whose cabinet appointees and close personal aides are drawn from one political party. The Committee's intention is that nothing in this bill should be interpreted to prohibit such appointments unless they are based on discrimination because of race, color, religion, sex or national origin. That intention is reflected in sections 703(h) and 706(w) of the law.

While it goes to the State elective office, I think it does infer that when we are talking about people appointed as personal aides of those individuals, it

certainly was not intended to cover the officers themselves.

Mr. ERVIN. Unfortunately, however, there is nothing to that effect in the bill, and where there is a conflict between a piece of legislation and a committee report, the piece of legislation controls and the committee report's effect becomes null and void.

Mr. TAFT. Well, of course, I am not saying, and the Senator I am sure will recognize that I am not saying, that the language of the bill in any way is in conflict with the committee report. In fact, I think quite the contrary is true. I think that the bill, within the Constitution, makes it perfectly clear, although there is no specific language to that effect, as to whether there is any intent to cover them, that there is in fact no intent to cover elected officials.

Mr. ERVIN. The bill in its amended form says that political subdivisions and States are employers, and then it says that an employee is anyone who is employed by an employer. The Senator from Ohio admits that the Governor of a State is employed by the State, and that the assistants to the Governor are employed by the State, and they are clearly covered by the provisions of the bill, and cannot be excluded from the provisions of the bill by any notions which may have been expressed by a committee member in the committee report.

Mr. TAFT. Well, I suspect that discussion of the subject has been pretty well extended. I cannot agree with the Senator's interpretation of the Constitution. I think it is a point which we ought to discuss when we get to a later amendment. I may not agree with the Senator on the exact language of that amendment, but if he would like to offer an amendment to make the language of the bill consistent with the committee report, I would be happy to go along with him to achieve that purpose.

Mr. ERVIN. The committee report says, in effect, that we do not intend to cover members of a Governor's cabinet who are appointed on the basis of politics. I have difficulty knowing just exactly what man in a State is appointed on the basis of politics. I do not take too much consolation out of the reference of the Senator from Ohio to the clause of the Constitution which guarantees to every State a republican form of government. My Constitution says that all powers not granted by the Constitution to the Federal Government are reserved to the States, or to the people.

Mr. TAFT. Well, of course, the powers—

Mr. ERVIN. Perhaps that no longer means anything.

Mr. TAFT. The powers intended to be exercised are already exercised, as a matter of fact, I think, under the Equal Employment Opportunity Act. We have already resolved that question; the courts have resolved and are resolving the question as to whether that power is exercised in accordance with the Federal Constitution. If the question is not fully resolved, the remedy lies in the courts.

Mr. ERVIN. I suppose that logically



we might just as well repose all the powers with the Federal Government.

As to the Senator's reference about the Constitution guaranteeing to each State a republican form of government, having lived in a State which has long had a democratic form of government, I have difficulty understanding what such a constitutional provision guaranteeing a republican form of government would mean.

Mr. TAFT. I believe the Supreme Court would be glad to help the Senator out, if we pass this provision.

Mr. ERVIN. I have read the previous decisions on this point, and they have left me in a state of total unenlightenment.

Mr. TAFT. I thank the Senator from North Carolina for his remarks.

Mr. STENNIS. Mr. President, will the manager of the bill yield me a few minutes? I wish to speak in favor of the amendment.

Mr. WILLIAMS. Yes, Mr. President, under the situation existing, since the opponents have no time remaining, and since we do have time, I am happy to yield 3 or 4 minutes to the Senator from Mississippi.

Mr. STENNIS. Mr. President, I hope that this amendment can be adopted by a majority vote of this body. Otherwise we are going to have all the counties in this Nation, large and small, all the villages and towns large and small, the cities large and small, and the States, even the drainage districts and the little township governments that still exist in some places, the school districts, and every other subdivision of our various States, subject to the control and the regulations of this bill.

I make my remarks on this basis, Mr. President. I am ashamed to admit it, but as I see things, the quality of work that is being performed by a great many people, a great many employees today, is not living up to the standards that it did a few years ago. I think pride in work is either deteriorating or totally lacking. We do not have the sense of responsibility—I am not trying to paint a bad picture, but as I see it and feel it, there is not that sense of responsibility in the minds and attitudes of a great number of employees, public and private, that this great country used to have. The sense of gratitude as I used to see it manifested is lacking now, and this trend is nationwide.

I think one of the reasons for that is that there is so much government regulation and so much direction to employers as to what they are required to do that so many of the employees feel so independent, as I say, that they are lacking in gratitude, and they are lacking in the sense of responsibility that we used to try to instill and could instill in almost everyone.

I believe that this measure is just another step in that direction. I have been doing recently some reading about the Constitutional Convention. I do not believe it would be possible to have a provision of law that would be further from the intent of all the delegates. They disagreed on many points, but this bill, in many of its points, is just the reverse

of the intent of the original founders, and I do not think there has been any amendment on this subject that has become a part of the Constitution since then.

So I believe, if we are going to go on with these trends, if in the little county, the little village or town, if there is nothing left there for their officials to do or to control because of being harassed at every turn about whom they will employ, we will be unable to get people to run for those offices.

I think they are doing a fairly good job, by and large. They feel a responsibility to the electorate. The people have a way of getting out of office a man who does not have the right attitude toward humanitarian problems, who does not have some compassion. Such an official does not last long. It just seems to me we are piling problem on top of problem for those little officials and boards. We are taking away the basis for pride and gratitude and the things that go to make quality in our people, and that have been the distinct American strength, in my opinion, for almost 200 years.

On top of all this, the people themselves are being taxed to death with taxes, taxes, and more taxes, and they are being regulated at every turn. I think this bill goes a long way—a long way—in accentuating those evils that are causing the deterioration in the attitudes of a great many of our people; and I lament that.

I am not just bringing up troubles, but we have got to meet those troubles, in my view.

Mr. ERVIN. Mr. President, will the Senator yield?

Mr. STENNIS. I am happy to yield to the Senator from North Carolina, if I have time.

Mr. ERVIN. Does not the Senator from Mississippi agree with the Senator from North Carolina that Woodrow Wilson was the most knowledgeable student of the American Government who has ever occupied the White House?

Mr. STENNIS. I believe the Senator is correct. I noticed his picture in the White House the other day, in the Cabinet Room.

Mr. ERVIN. Woodrow Wilson once stated this:

Liberty has never come from government. Liberty has always come from the subjects of government. . . . The history of liberty is a history of the limitations of governmental power, not the increase of it.

When we resist . . . concentration of power, we are resisting the powers of death, because concentration of power is what always precedes the destruction of human liberties.

Does not the Senator from Mississippi agree with the Senator from North Carolina that the passage of this bill would do more to destroy human liberties than any piece of legislation that has come before Congress throughout its history?

Mr. STENNIS. The Senator from North Carolina has stated the case well. I agree wholeheartedly. In fact, I shudder to think of this bill being enacted into a law that is enforceable. With all deference, I believe it is invalid on its face.

Mr. President, in addition to these matters, people do not know where to turn.

People are afraid of their own Government, and they have not committed any crime. There are so many regulations that they are afraid to go into a little business, because they hear people already in business talking about the difficulties, the obstacles, and the regulations.

I think that we absolutely must make a turn in going in the other direction. This entire bill tends to accentuate the very evils to which I have referred.

Let us leave people in the little villages, townships, districts, towns, and States, and subdivisions thereof—most of whom are chosen by the people and are up for reelection in a very short time—some responsibility. Let us leave them some obligation, and let us leave a little control of these affairs in the hands of the people. Otherwise, what will be the reason for even registering to vote or to go to the trouble to get involved in these elections? Let us do all these things by adopting this amendment.

I thank the Senator from New York for the time he has given me.

Mr. WILLIAMS. Mr. President, I yield whatever time he requires to the Senator from New York.

Mr. JAVITS. Mr. President, it is very important, as we are about to vote on this amendment, that we recognize that of all the provisions in this bill, this has the most solemn congressional sanction, because it is based not on the commerce clause, which relates to the relationships between individuals as well as with governments, but is based on the 14th amendment. This is a paramount right which is created for all Americans.

The 14th amendment has been held applicable to just employment discrimination by the States. Also, in Maryland against Wirtz, in 1968, the Court upheld the application of the Fair Labor Standards Act to certain classes of public employees as a legitimate exercise of congressional regulatory authority under the commerce clause.

Mr. President, this is critically important, because of all the people who were just referred to as having the right to feel they would be protected in terms of any inquisitorial denial of equal opportunity, it certainly is the employees of units of Government elected by them but which often do not operate in such a way as to serve them—all of them—including minorities.

This is no fanciful thing. This involves an enormous block of employees—10 million—of whom almost 3 million are dealing with education. As recently as 1969, this was the subject of special consideration by the U.S. Commission on Civil Rights, as a factfinder, which held flatly—and I read from page 10 of the committee's report:

State and local governments have failed to fulfill their obligation to assure equal job opportunity.

The States, themselves, have recognized this; and 33 of the 34 States which have fair employment practices statutes have made those statutes applicable to State and local employees; and indeed they must, in the most common and obvious equity.

So the Constitution is imperative not only in respect of employment but also in respect of all other matters dealing with the equal protection of the laws by all citizens of States and their political subdivisions. The Supreme Court has reinforced this directive in a whole host of cases. One could go through a list of citations that would take 3 days, as to the cases in which the 14th amendment has been applied to the relationships between the citizen and his State. What more sacred or more important relationship is there in terms of the life of the individual than the extent to which he shall have a fair and even break in respect of employment?

Not only is this applicable to minorities; it is also applicable on the ground of sex. The committee report reflects that very clearly in terms of the differentiation not only between members of minorities and others in respect of income, and so forth, and having opportunities in the higher levels of employment by States and their local subdivisions, but also, it applies to women where, based upon overall figures, it is obvious that something is not right in terms of the way in which the alleged concept of equal opportunity is being administered now.

It is for that reason, Mr. President, that one of the greatest reforms in this bill is its applicability to those who are engaged in State and local employment—I repeat, 10 million employees, the largest single block in any one calling of all the employees, as there are now about 80 million in the entire American work force. If anybody, as a matter of morality, is entitled to equal employment opportunity, it certainly is those people; and the only way they can get it, because the authority so far as they are concerned is the State, is at the hands of the United States, under the 14th amendment. Section 5 of the 14th amendment, giving the power to Congress to enforce by appropriate legislation the provisions of this article, it seems to me, makes it mandatory, not discretionary, in terms of the highest morality, that we act affirmatively on this aspect of this bill.

For all those reasons, with the highest respect for the State and local governments—because in this case there is no cease and desist power, but there is simply the power to litigate—that is the very least we can give the individual—the aid of the Attorney General in litigating a case through the courts, insofar as the paramount rights under the 14th amendment are concerned. I think this is the very least we can do. To me, it is one of the most unchallengeable parts of this bill.

For those reasons, I hope very much that the Senate will reject this amendment.

Mr. COOPER. Mr. President, will the Senator yield for a question?

Mr. JAVITS. I yield.

Mr. COOPER. I have listened to part of the Senator's argument, and I understand its reasoning and rationale. I ask the Senator this question: I think it is evident that there is discrimination in employment by a State when there is a

clearcut case of State action. Is it not possible, following another course and a very simple remedy, for the courts to proceed against the State to require compliance with the 14th amendment?

Mr. JAVITS. That is entirely right, and the thrust of this bill is consistent with that approach. In other words, we feel that where the individual who is being denied equal opportunity under the 14th amendment faces the power of his own State, of which he is an employee, he is entitled to have the aid of the United States in order to assert a right which the United States gives him—a constitutional right. The Senator is perfectly right. There is a legal right and a legal remedy, except that the legal remedy is not affected in the absence of this kind of backing which this particular statute gives it.

Mr. COOPER. It would seem to me that a court decision against a State requiring the termination if there is discrimination in employment would be one of the clearest and simplest remedies which could be used and which could be enforced by the courts.

Mr. JAVITS. When the individual is an employee of a State, he is being asked to take on a very tough assignment if he is asked to proceed against that State; hence, the high desirability of the interposition of the United States in the process to protect these rights.

Mr. WILLIAMS. Mr. President, a parliamentary inquiry—how much time remains?

The PRESIDING OFFICER (Mr. CRANSTON). All time has now expired. The yeas and nays have not been ordered.

Mr. JAVITS. Mr. President, I ask for the yeas and nays on the amendment.

The yeas and nays were ordered.

The PRESIDING OFFICER. Pursuant to the previous order, the hour of 2 o'clock having arrived, the Senate will now proceed to vote on the pending amendment.

On this question the yeas and nays have been ordered, and the clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. FULBRIGHT (when his name was called). On this vote I have a pair with the Senator from Missouri (Mr. EAGLETON). If he were present and voting, he would vote "nay"; if I were at liberty to vote, I would vote "yea." I withhold my vote.

Mr. HOLLINGS (when his name was called). On this vote I have a pair with the Senator from Maine (Mr. MUSKIE). If he were present and voting, he would vote "nay"; if I were at liberty to vote, I would vote "yea." I withhold my vote.

Mr. GRIFFIN (after having voted in the negative). On this vote I have a pair with the Senator from Texas (Mr. TOWER). If he were present and voting, he would vote "yea"; if I were at liberty to vote, I would vote "nay." I withdraw my vote.

Mr. BYRD of West Virginia. I announce that the Senator from Texas (Mr. BENTSEN), the Senator from Missouri (Mr. EAGLETON), the Senator from Alaska (Mr. GRAVEL), the Senator from

Oklahoma (Mr. HARRIS), the Senator from Indiana (Mr. HARTKE), the Senator from Minnesota (Mr. HUMPHREY), the Senator from Washington (Mr. JACKSON), the Senator from Washington (Mr. MAGNUSON), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Maine (Mr. MUSKIE), the Senator from Alabama (Mr. SPARKMAN), the Senator from Illinois (Mr. STEVENSON), and the Senator from California (Mr. TUNNEY) are necessarily absent.

On this vote, the Senator from South Dakota (Mr. MCGOVERN) is paired with the Senator from Arizona (Mr. FANNIN). If present and voting, the Senator from South Dakota would vote "nay" and the Senator from Arizona would vote "yea."

I further announce that, if present and voting, the Senator from Alaska (Mr. GRAVEL), the Senator from Oklahoma (Mr. HARRIS), the Senator from Indiana (Mr. HARTKE), the Senator from Washington (Mr. JACKSON), the Senator from Washington (Mr. MAGNUSON), the Senator from California (Mr. TUNNEY), the Senator from Minnesota (Mr. HUMPHREY), and the Senator from Illinois (Mr. STEVENSON), would each vote "nay."

Mr. GRIFFIN. I announce that the Senator from Tennessee (Mr. BAKER), the Senator from New Hampshire (Mr. COTTON), the Senator from Arizona (Mr. FANNIN), the Senator from Texas (Mr. TOWER), and the Senator from North Dakota (Mr. YOUNG) are necessarily absent.

The Senator from Tennessee (Mr. BROCK), the Senator from Wyoming (Mr. HANSEN), and the Senator from Maryland (Mr. MATHIAS) are absent on official business.

The Senator from South Dakota (Mr. MUNDT) is absent because of illness.

On this vote, the Senator from Arizona (Mr. FANNIN) is paired with the Senator from South Dakota (Mr. MCGOVERN). If present and voting, the Senator from Arizona would vote "yea" and the Senator from South Dakota would vote "nay."

The pair of the Senator from Texas (Mr. TOWER) has been previously announced by me.

The result was announced—yeas 16, nays 59, as follows:

[No. 20 Leg.]

YEAS—16

Allen	Ellender	McClellan
Bennett	Ervin	Stennis
Buckley	Gurney	Talmadge
Byrd, Va.	Hruska	Thurmond
Curtis	Jordan, N.C.	
Eastland	Long	

NAYS—59

Alken	Fong	Pastore
Allott	Gambrell	Pearson
Anderson	Goldwater	Pell
Bayh	Hart	Percy
Beall	Hatfield	Proxmire
Bellmon	Hughes	Randolph
Bible	Inouye	Ribicoff
Boggs	Javits	Roth
Brooke	Jordan, Idaho	Saxbe
Burdick	Kennedy	Schweiker
Byrd, W. Va.	Mansfield	Scott
Cannon	McGee	Smith
Case	McIntyre	Spong
Chiles	Metcalf	Stafford
Church	Miller	Stevens
Cook	Mondale	Symington
Cooper	Montoya	Taft
Cranston	Moss	Welcker
Dole	Nelson	Williams
Dominick	Packwood	



PRESENT AND GIVING LIVE PAIRS, AS  
PREVIOUSLY RECORDED—3

Fulbright, for.  
Griffin, against.  
Hollings, for.

## NOT VOTING—22

Baker	Harris	Muskie
Bentsen	Hartke	Sparkman
Brock	Humphrey	Stevenson
Cotton	Jackson	Tower
Eagleton	Magnuson	Tunney
Fannin	Mathias	Young
Gravel	McGovern	
Hansen	Mundt	

So Mr. ERVIN's amendment (No. 812) was rejected.

Mr. JAVITS. Mr. President, I move to reconsider the vote by which the amendment was rejected.

Mr. BYRD of West Virginia. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

## MESSAGES FROM THE PRESIDENT

Messages in writing from the President of the United States, submitting nominations, were communicated to the Senate by Mr. Leonard, one of his secretaries.

## EXECUTIVE MESSAGES REFERRED

As in executive session, the Presiding Officer (Mr. GAMBRELL) laid before the Senate messages from the President of the United States submitting sundry nominations, which were referred to the appropriate committees.

(The nominations received today are printed at the end of Senate proceedings.)

## EQUAL EMPLOYMENT OPPORTUNITIES ENFORCEMENT ACT OF 1971

The Senate continued with the consideration of the bill (S. 2515) to further promote equal employment opportunities for American workers.

## AMENDMENT NO. 833

Mr. GAMBRELL. Mr. President, I call up my amendment No. 833.

The PRESIDING OFFICER (Mr. WEICKER). The clerk will report the amendment.

The assistant legislative clerk read as follows:

On page 50, line 19, add the following new section:

(e) Subsection (w) of section 706 of such Act, as redesignated by this section is amended to read as follows:

"(w) In any action or proceeding under this title the Commission or court, as the case may be, may allow the prevailing party, other than the Commission or the United States, a reasonable attorney's fee as part of the costs. Any respondent that is an employer of less than twenty-five employees or a labor organization of less than twenty-five members shall, upon application to the Commission, be indemnified by the United States for the cost of his defense against the charge in an amount not to exceed \$5,000, including all reasonable expenses and attorney's fees incurred after the serving of notice on him of the charge.

"Any respondent that is an employer of twenty-five to one hundred employees whose average income from such employment is less than \$7,500, or a labor organization with twenty-five to one hundred members, shall,

upon application to the Commission, be indemnified by the United States for one-half of the cost of his defense against the charge not to exceed \$2,500, including all reasonable expenses and attorney's fees incurred after the serving of notice on him of the charge. The costs evidenced by respondent's vouchers of his expenses and attorney's fees shall be deemed reasonable so long as they are comparable to the total amount of the expenses and attorney's fees incurred by the Commission in investigating and prosecuting the charge. Disallowance of any part of such request shall be made a part of the Commission's order in such proceedings. Any United States court before which a proceeding under this title shall be brought may upon request by the respondent make the determination provided for in this subsection.

"The Commission and the United States shall be liable for costs as provided for in this section the same as a private person. No enforcement procedure under this title may be initiated against a respondent employer or union until the costs provided for herein shall have been paid in full. No such costs shall be paid in the event that the Commission or court having jurisdiction of such proceeding shall determine that a respondent has conducted his defense in a manner inconsistent with the achievement of the purposes of this title."

Mr. GAMBRELL. Mr. President, the amendment I have offered at this time extends relief to small businesses under the pending bill. That is to say, it provides for an allowance for attorneys' fees for certain prescribed small businesses against whom enforcement proceedings are brought under this act.

I have under discussion with the committee the possibility of a time limitation on the amendment. I am agreeable to limiting the time. As soon as the committee members have conferred, perhaps we could get together on that matter. I would say that if any Senator is interested in supporting the amendment and would like to speak on it, I would appreciate it if he would let me know before a time limitation is agreed to.

Mr. President, the amendment I have offered is a revision of an amendment which I filed on January 21. At that time I made a statement in the RECORD describing the amendment and my reason for offering it. I would not at this time repeat at great length my thinking on that subject as expressed at that time other than to say that I contemplate as we go into the situation, particularly with respect to cease-and-desist procedures, that more and more businesses, and particularly those smaller businesses, will be imposed upon, not in an effort to destroy them but with that effect, by the court proceedings under this act.

I think that Senators will recognize that it is not uncommon for all the businesses under Federal investigation under various pieces of legislation to find themselves in a position from an economic point of view of being unable to compete with the tremendous and overwhelming resources available to the Federal Government with such enforcement procedures.

As a result, rather than to fight it out and determine the issues of a particular investigation or enforcement and to submit proof to make a comparison—which I think is an un-American type of proceeding—with a large corporation

against whom proceedings are brought, a corporation which is able to set aside a certain amount of money for the purpose of defending itself to wear the Government out, if that be possible, in order to fight the impact of the legislation, the imbalance of ability to defend against the Government means that small businesses are imposed upon in the enforcement of various types of Federal legislation.

There is no question that this imbalance of relative strength denies small businesses a fair opportunity for self-defense against Government regulations.

In specific terms, the amendment provides that a business or a union which has 25 or fewer employees or members will get its entire expense and attorney's fee reimbursed by the Federal Government through the EEOC in any proceeding against it.

Under the act, businesses and unions having from 25 up to 100 members or employees would be reimbursed up to \$2,500. But in each case, the Commission or the court before which a proceeding is pending would have to determine, before the amount could be paid, that the defenses made by small businesses were put on for purposes inconsistent with the purposes of the act itself. That is to say, the court or the EEOC would have an opportunity to determine whether the union or the small business was defending itself in bad faith. If so, the payment of fees and expenses could be denied.

The amendment also provides that this compensation would have to be paid prior to any enforcement proceedings being brought against the small business or the small union. In other words, after the investigation, or after the Commission proceedings, the Commission would determine the amount of award of a fee, and that fee would have to be paid in cash before the Commission could go to court to get a restraining order.

It seems to me that this is only fair, in order to give small business or small unions an opportunity to say, "Well, up to at least \$2,500 or \$25,000, I can fight the matter equally with the Federal Government. I am the first, the fourth, the seventh, the 10th, or the 100th person being proceeded against under the act. I have some genuine questions of fact or question of law that I want to litigate. I have a competent attorney who advises me that I am not obligated to do what the Government says I am supposed to do, and I should like to have that question determined.

Of course, I would prefer to have the case determined in court, but under the law I have got to go through the Commission. In any event, I do have an opportunity, within those limits, to defend myself in good faith against the overwhelming economic power at the command of the Federal Government.

Mr. President, the Civil Rights and Equal Employment Opportunity Acts themselves, which are being amended under the pending legislation, already provide discretionary authority for the Commission to pay costs and attorney fees to a prevailing party in such a case. In other words, if I am proceeded against, and I win, the Commission can

say, "We are sorry about the harassment we have caused, and we will pay your costs and attorney fees."

We make this change or this addition: We leave the amendment without change except that we provide for discretionary authority in the case of the prevailing party. We say that any respondent—that is, a labor union or an employer—who qualifies as a small business or a small union can be compensated for his expenses, or expenses and fees, even if he loses or even if he is found at fault, so long as it is not determined that he conducted his defense in a manner inconsistent with the achievement of the purposes of the act.

Our thought in offering the amendment is simple. We feel that if a small business or a small union in good faith wishes to test some of the questions that are raised, it should have a right to do so without bankrupting itself. It should not have to depend upon its ultimately prevailing, because it could be wrong in good faith about the law, or it could be wrong in good faith about the facts. It seems to me that certainly in the early stages of enforcement under the act these questions should be subject to exploration by small businesses in the same manner as they would be by large businesses.

It has been demonstrated time and again that what we fear will come to pass. I should like to give some examples of the type of thing that concerns me.

I think the Senate is aware that northwest Georgia is the tufted carpet capital of the world. More tufted carpet is manufactured in that area than in any other single area of the world. In the fall of last year, a second march through Georgia took place—in this case, not by General Sherman, but by the Federal Trade Commission, under the Flammable Fabrics Act. Virtually all of the manufacturers in this fine industry undertook to comply with the standards applied by the Federal Trade Commission, under this act, for reducing the flammability of textile materials. The smaller manufacturers had a little more trouble complying with the standards than the larger ones. All of a sudden, the Federal Trade Commission announced that it was going to initiate enforcement proceedings and in that connection were going to require those who had not complied to invite their customers to return their carpeting in the manner we are all familiar with in connection with the automobile industry.

We immediately began to receive calls of concern, stating, "Well, we are trying our best to comply with this and we would like to go through this procedure, but if we make a public announcement that some or part of our carpet does not comply, we might as well go into bankruptcy, because we would not be able to tell the carpet while it is under this shadow."

There was a lot of going back and forth and filling and reevaluating with the Trade Commission. We finally developed a concept from the Commission: It felt they could not give any exception to smaller businesses because it would interrupt the consistency of their law enforcement procedures. They say they

have to apply the uniform, regular standards to small businesses that they apply to large businesses, and if it bankrupts a few along the way, that is their problem, and not ours.

I would not charge the Trade Commission people in that instance with undertaking to act unfairly or insensitively. They thought it was consistent with good enforcement practices that they should apply the same standards to everyone. But it seems to me—and I think it is obvious—that small businesses cannot meet the changing standards of Government regulation as quickly and as completely and to the satisfaction of the regulatory authorities as large businesses can, and I think it is very important that the law make a distinction between large and small businesses if the purpose is—and in fact I think the purpose and intent of our laws relating to small businesses is—to make such a distinction.

In this connection, I should like to bring to the Senate's attention some comments of the Senator from Nevada (Mr. BIBLE), as reported in the hearings before the Subcommittee on Small Business of the Committee on Banking, Housing and Urban Affairs on April 21, 1971. The Senator from Nevada said:

Small businesses, which constitute 95 percent of every line of commerce, have played an indispensable part in the growth of the country. As we come further into the period of multiplying environmental and consumer concerns, however, it is natural that the role of small business would require some redefinition at this point, and continuing evaluation in the future.

I shall not read the quotation in its entirety at this point, but I ask unanimous consent that the statement, which appears on page 38 of the report, be incorporated at this point in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

[Reprinted From the CONGRESSIONAL RECORD, Dec. 17, 1970]

#### THE 91ST CONGRESS ACTION GIVES HISTORIC RECOGNITION TO SMALL BUSINESS IN ENVIRONMENTAL AND CONSUMER ERA

Mr. BIBLE. Mr. President, as chairman of the Senate Small Business Committee, it is gratifying to be able to report that the 91st Congress has distinguished itself by granting what I feel should be considered an historic recognition of the role of small business in this era of increasing environmental and consumer concerns.

Small businesses, which constitute 95 percent of every line of commerce, have played an indispensable part in the growth of the country. As we come further into the period of multiplying environmental and consumer concerns, however, it is natural that the role of small business would require some redefinition at this point, and continuing evaluation in the future.

Those who work with small business are aware of its valuable place in the new economic circle if we want to make our daily life more livable and pleasant. We know that small businesses make merchandise and amenities widely and conveniently available in every part of our cities and small towns. We have seen that they can combat inflation by competing to keep prices lower and quality higher. They give services which tend to be more personal and reliable; they maintain community control and local flavor and variety in our commercial life. New and small firms are a natural outlet for young people

and the energetic and imaginative of all ages with better ideas. In short, we need more and stronger small businesses to improve the quality of life in America.

However, the long list of worthy consumer, health, safety, pollution, and sanitary standards which Congress has placed on the statute books during the past 5 years has had the unintended and unfortunate side effect of imperiling the very existence of entire segments of the small business community.

Deadline dates were imposed, and Government administrators were given the power to permanently shut down noncomplying firms without compensation. As a result literally thousands of firms—about 7,000 in the meat packing industry alone—in the small business community felt threatened, and actually were threatened, at many points by our citizens who sincerely wished to upgrade our common life through the avenue of legislating higher environmental and consumer standards.

Accordingly these two groups appeared to be in direct conflict. This situation was aggravated when businessmen setting out to comply with the new standards ran into record high-interest rates and tight money at their banks, coupled with a sharp cutback of Small Business Administration loans. As compliance deadlines approached inexorably interest rates touched peaks not seen since the Civil War. Loan funds for the required new plants and equipment were virtually unavailable in some parts of the country. As firms struggled under these conditions, we found an increasing atmosphere of desperation among small business.

#### SACRIFICE OF SMALL BUSINESS WOULD BE A TRAGEDY

It was my feeling that it would be a national tragedy if the country's obvious desire to upgrade our technical standards greatly diminished the quality of our economy and commerce, and eventually the quality of daily life for all of us. It seemed to me a manifest injustice for the Federal Government to be closing down without legal recourse, thousands of small businesses which were making every reasonable effort to comply with the laws.

Thus, during the 90th Congress—in May 1968—I submitted a resolution—Senate Resolution 209—asking the Small Business Administration to study the impact of the new laws, as exemplified by the Wholesome Meat Act, on small business. Of course, the new meat standards were having a direct impact in my own State of Nevada and other neighboring Western States. Then, on April 1, 1969, I was joined by the distinguished chairman of the Senate Banking and Currency Committee (Mr. Sparkman) and 11 other Senators from every part of the country in introducing a bill which would provide emergency loan assistance through the disaster loan program of the SBA. This bill, S. 1750, was designed to allow the small business community to adjust to the environmental and consumer era; and to continue their record of good service to their owners and employees, their customers and communities.

#### CONGRESS RISES TO THE QUESTION

Mr. President, I am proud of the record of the 91st Congress in this regard.

Three committees each in both the House and the Senate accorded recognition to these questions. Hearings were held followed by deliberations in executive session which brought legislation to the floor of both of these great bodies. Then, the Senate and House of Representatives, in Congress assembled, acted decisively.

Let me cite the milestones in this record:

First, in December, 1969, Congress approved the Federal Coal Mine Health and Safety Act—Public Law 91-173—which provided relief to small mine operators required to



meet the new requirements imposed by this legislation;

Second, in mid-December of this year, the House-Senate Conference considered two occupational safety and health bills—H.R. 19200 and S. 2193—and approved a final version which contains similar provisions for relief to small firms in complying with this measure; and

Third, On December 14, the Senate completed congressional enactment of H.R. 19888, which extended similar emergency loan eligibility to firms affected by the Wholesome Meat Act of 1967, the Wholesome Poultry Products Act of 1968, and the Egg Products Inspection Act of 1970.

By the terms of the legislation we have proposed, the loans will be for the purpose of complying with specific standards erected by Federal—or equivalent State—legislation under definite deadlines. The loans will not be subsidized but are intended to be at an interest rate equal to the cost of money to the Federal Government plus one-fourth of 1 percent.

However, the significant point is that Congress has acted to resolve the conflict between consumers, conservationists, and all concerned with our environment on one side and businessmen on the other. Congress has accorded this recognition to small business not only in rhetoric, but in a tangible way, by making money available to ease the dilemma. This series of enactments will, in my opinion, make small businessmen full partners in progress again rather than its imminent victims.

I am pleased that our Small Business Committee could play a part in this drama by its work in the technical drafting of the language which served as a vehicle for the wider congressional consideration of the issues, and by providing background to those committees and Members who were interested. We can all rejoice at this kind of creative lawmaking.

I believe the committees concerned, the leadership of both the House and the Senate, and Representative Neal Smith of Iowa, Representative Graham Purcell, of Texas, and Representative Tom Foley, of Washington, as House sponsors of the agribusiness provision, should be commended by all concerned with these matters.

#### FOCUS NOW SHIFTS TO IMPLEMENTATION

These enactments will leave some gaps, which we can attempt to fill in the coming years. We also have still ahead the implementation of these statutes by the SBA and the executive branch of the Government. It will be of prime importance to inform small firms under Federal deadlines of their alternatives, and to have simple and workable procedures so that the needed loan capital can be obtained in time.

I have conferred with the House sponsors of these measures, and we have agreed that the next step to be taken is to ask the Small Business Administration for its views on how these acts should be implemented without delay.

With the background of Senate Resolution 290, the Small Business Administration has been pursuing its study of the financial needs of the meat industry in complying with the deadlines of the Wholesome Meat Act of 1967. We feel that this work should now be well along toward completion. This extensive effort will give the agency an excellent factual basis for prompt recommendations to the Congress and the President to keep small meat, egg, and poultry businesses, as well as small coal mines and others subject to new occupational safety standards, in the business in cities and towns across the Nation.

I have undertaken to make this request of the Small Business Administration, stating that we wish to be helpful in bringing about prompt and full implementation of these relief laws.

#### STEP TOWARD COMPASSIONATE GOVERNMENT

In my opinion the precedents have now been established by the three acts which I have cited. Congress has shown it continues to care about small business as a part of our national life in the environmental and consumer era, and that it will back up this concern by appropriate action. By doing so, a giant step has been taken toward keeping our Government and our economy more compassionate and more serviceable for all of our people.

Mr. GAMBRELL. Mr. President, the substance of those remarks had to do with what the Senator from Nevada describes as a long list of worthy consumer health, safety, pollution, and sanitary standards which Congress has placed on the statute books, but wherein the administration of those acts threatens to destroy our small business community.

In particular, in connection with the clean rivers bill, which the Senate passed late last year, an amendment was adopted granting specific relief to smaller businesses to aid them in complying with the provisions of that act.

Here again is an illustration of this Congress' and this Government's intention not to impose on small businesses through the provisions of any regulatory legislation.

One other instance that I would like to call to the Senate's attention in this area is in the Safety Standards Act; and this has been brought to my attention on a number of occasions. It appears that the regulations published by the Department of Labor under and pursuant to the Construction Health and Safety Act has worked a tremendous hardship on those contractors and builders who are engaged in light construction, and particularly in residential construction.

Again, I would assume that this harm is unintentional and unwitting on the part of the Department of Labor; that the Department of Labor has no discriminatory intent against small businesses in this field; but from all the reports received in my office—and I am sure in the offices of other Senators—compliance with these regulations has made the cost of construction of small residences or residences intended for lower-income people go up tremendously. These people typically employ what we call casual labor, labor that may be available one day and not the next day, or that may be available two or three days. As one man told me, "I have to buy a \$13 helmet and give it to him on Monday, when he may not be back Tuesday, and this total day's wage may not be more than \$13."

It is in this type of thing and this type of regulation that Congress, in enacting bills, and the regulatory agencies, in carrying out those intentions, should be more sensitive to the impact of such legislation on smaller businesses.

It has been said that the amendment which I have offered will encourage litigation, will encourage small businesses in the classification referred to, to be more litigious, and to insist on a lot of unworthy defenses and that type of thing. We have tried to deal with that possibility in the act in a number of ways, although I do not conceive of it as a real difficulty, because the average business-

man has much more to do than to want to go before the EEOC or a Federal court on an unfair employment practices charge.

But the limits that are built into the amendment, aside from the practical restrictions on what one will do and what he is to do, are, first, that the provision applies only to small businesses. Someone who employs up to 25 gets full compensation. Someone who employs between 25 and 100 gets only half of his fees and expenses taken care of. So, first, it applies only to small businesses. Second, there are limits built into that. A very small one can get only up to \$5,000 in total, and the slightly small one, you might say, gets only \$2,500. But there again there are some practical limits built into it. The man going into litigation can see there is no bonanza of fees and expenses with which to defend himself.

Another limitation is that the reasonableness of the charges that he submits must be comparable to those which the EEOC itself has spent in prosecuting the charges against him.

So if the EEOC has spent only \$1,000 on the claim, he would be entitled to only \$2,500 or \$5,000.

My guess is that, in most cases, the EEOC will spend enormously more money in dealing with any of these claims than any private business could possibly afford to do. But there are limits—that he cannot receive more for defending himself as was spent against him.

Finally, a limitation which is most important is that he does not get anything if the manner in which he conducts his defense is found by the Commission or the court to be inconsistent with the purposes of the act.

In my judgment, this amendment will encourage settlement rather than discourage it. The reason for that is this: A small businessman might go into litigation thinking in good faith that he has a defense or that he has a question of fact that would be adjudicated in his favor, and then ultimately find that he was mistaken.

So, Mr. President, I think the amendment will encourage settlement, because a man, in considering whether to settle with the EEOC some claim that is under adjudication, would be entitled to be compensated if he will admit that he was in the wrong.

He might say, "Well, yes, you have proved to my satisfaction that I did violate this act, and rather than going to the Commission or before the courts and have a knockdown, drag-out lawsuit about the matter, I would like to enter into consent, but I have these expenses and attorneys' fees incurred, and I would like for you to allow them."

Under the present law, as I understand it, with a consent of that type, the Commission could not allow expenses and attorneys' fees, because the respondent in the case would not have been a prevailing party. This amendment says that so long as he has conducted his defense in a manner consistent with the purposes of the act itself, he can and in fact must be paid his expenses and attorneys' fees.

On this basis, from my own experience in observing the conduct of people in litigation, if a man found out that he was in the wrong, he would hurriedly admit it if he could just make himself whole on the question of his outlays for expenses and attorneys' fees at that point.

The limitations I have referred to would prevent anyone from being what we call, in our State law, "stubbornly litigious," simply fighting and blustering around in order to delay the day of ultimate justice.

Mr. President, I would suggest to the committee that they accept this amendment, because it would in fact encourage the settlement of cases when the respondent has found himself to be in the wrong. Therefore, Mr. President, I submit that the amendment should be agreed to.

Mr. WILLIAMS. Mr. President, I have reservations about some of the details of the amendment, including the fact that the assessment of fees and costs in certain areas is mandatory and not discretionary, and the fact that they must be paid in advance. These are the two major reservations I have. Yet, a provision for the fair assessment of costs and fees certainly is a principle that I would like to agree to, and it should be included in this legislation.

As it stands, the fact that the fees and the costs are mandatorily assessed, win, lose, or draw, cause me to hesitate.

I should like to state to the Senator from Georgia, who is probably a lot closer to the practice of law than I, that I cannot think of any situation that we can look to for guidance from experience, any other area of law where there is an advance assessment of fees and costs before trial, where it is mandatory and it has no relationship to the outcome of the litigation.

Is there such an area?

Mr. GAMBRELL. First, Mr. President, I should like to clarify the interpretation that the Senator has put on the matter. I think he is mistaken in saying that it is payable in advance. In fact, I know he is, because as I understand the bill, you do not go to court and you do not have any rendering of any kind of decision until after there has been a very thorough investigation or until after the conciliation—

Mr. WILLIAMS. I said in advance of litigation, or I meant to say that.

Mr. GAMBRELL. The Senator did say before going to court, but the way the committee has insisted on doing it, in setting up a procedure, there will be a full scale, knock down and drag out fight before the Commission itself, and the court proceedings will be a simple aftermath, the court has its hands tied, and there will not be much for the law students to make of it. Under the type of cease-and-desist procedure the committee insists on, I think it should be recognized that the whole ball game is there in front of the Commission itself. This amendment is not to provide for payment prior to that, but it is a provision for payment under the order issued by the Commission in the proceeding itself.

Mr. WILLIAMS. Mr. President, if the Senator will yield, that is helpful in clarifying it. I had read the amendment,

on page 2 at line 24, to mean something different than the Senator has just described it. Where the amendment says, "No enforcement procedure under this title may be initiated against a respondent employer or union until the costs provided for herein shall have been paid in full," I interpreted that to mean payment before the hearing on the complaint before the trial examiner under cease and desist, at the Commission level. Am I in error? Is this to be paid only on appeal, then, to the circuit court of appeals?

Mr. GAMBRELL. Of course, at the time we drew this, we did not know what type of enforcement procedure would be adopted; but the intention of that language is to mean an enforcement procedure in court.

In other words, I do not interpret the proceedings before the Commission to be an enforcement procedure, in my own terminology, because it is not self-executing; it has to be taken to court to be made operative. But I would certainly not object to some clarifying change being made in that language, in order to make it clear that we are talking about at the end of the Commission proceedings, rather than in the beginning.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. MONDALE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MONDALE. Mr. President, I send to the desk an amendment in the form of a substitute to the pending amendment, No. 833, and I ask unanimous consent that the reading of the substitute amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered; and, without objection, the substitute amendment will be printed in the RECORD.

The substitute amendment is as follows:

In lieu of the language in amendment No. 833, insert the following new section:

"(e) subsection (w) of Section 706 of such Act, as redesignated by this section is amended to read as follows:

"(w) in any action or proceeding under this title the Commission or Court, as the case may be, may allow the prevailing party, other than the Commission or the United States, a reasonable attorney's fee as part of the costs, and the Commission and the United States shall be liable for costs the same as a private person. Any prevailing party that is an employer of less than twenty-five employees or a labor organization of less than twenty-five members shall, upon application to the Commission, be indemnified by the United States for the cost of his defense against the charge in an amount not to exceed \$5,000, including all reasonable expenses and attorney's fees incurred after the serving of notice on him of the charge."

"Any prevailing party that is an employer of twenty-five to one hundred employees whose average income from such employment is less than \$7,500, or a labor organization with twenty-five to one hundred members, shall, upon application to the Commission, be indemnified by the United States for one-

half of the cost of his defense against the charge not to exceed \$2,500, including all reasonable expenses and attorney's fees incurred after the serving of notice on him of the charge. The costs evidenced by respondent's vouchers of his expenses and attorney's fees shall be deemed reasonable so long as they are comparable to the total amount of the expenses and attorney's fees incurred by the Commission in investigating and prosecuting the charge. Disallowance of any part of such request shall be made a part of the Commission's order in such proceedings. Any United States court before which a proceeding under this title shall be brought may upon request by the respondent make the determination provided for in this subsection. The Treasurer of the United States shall indemnify the respondent as provided for herein upon certification by the Commission."

Mr. MONDALE. Mr. President, I ask unanimous consent that there be a 30-minute limitation on the proposed substitute, to be evenly divided between the proposer of amendment No. 833, the distinguished Senator from Georgia, and the floor manager of the present proposal, the distinguished Senator from New Jersey.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

Mr. MONDALE. Mr. President, I ask unanimous consent that following that, should the substitute not prevail, there be a limitation of 10 minutes on the amendment offered by the distinguished Senator from Georgia, to be equally divided and controlled by the same parties.

The PRESIDING OFFICER. Is there objection?

Mr. JAVITS. Mr. President, what is the request?

Mr. GAMBRELL. Mr. President, reserving the right to object—

The PRESIDING OFFICER. In response to the Senator from New York, as the Chair understands it, a substitute amendment to the amendment of the Senator from Georgia has been sent to the desk by the Senator from Minnesota.

Mr. MONDALE. The Chair is correct.

The PRESIDING OFFICER. The Senator from Minnesota requested that there be 30 minutes on the substitute amendment, to be equally divided. Then he made a further request that if the substitute amendment does not prevail, there be 10 minutes, to be equally divided, on the original amendment of the Senator from Georgia.

Is there objection? The Chair hears none, and it is so ordered.

Mr. GAMBRELL. Mr. President, reserving the right to object, I should like the record to show that I object to the substitute, but I do not object to the time limitation.

The PRESIDING OFFICER. As the Chair understands the Senator from Georgia, he has not objected to the unanimous-consent request of the Senator from Minnesota.

Mr. GAMBRELL. That is right. He stated it all together, and I want it to be clear that I object to the substitute.

Mr. CRANSTON. Mr. President, will the Senator yield?

Mr. MONDALE. I yield.

Mr. CRANSTON. I simply want to request the Senator from Minnesota to list



my name as a cosponsor of his very fine substitute amendment.

Mr. MONDALE. Mr. President, I ask unanimous consent that that request be granted.

The PRESIDING OFFICER. Without objection, it is so ordered.

Who yields time?

Mr. MONDALE. Mr. President, I suggest the absence of a quorum, and I ask unanimous consent that the time not be charged against either side.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MONDALE. Mr. President, I ask for the yeas and nays on my substitute amendment.

The yeas and nays were ordered.

Mr. MONDALE. Mr. President, I yield 5 minutes.

The PRESIDING OFFICER. The Senator from Minnesota is recognized for 5 minutes.

Mr. MONDALE. Mr. President, the amendment offered by the Senator from Georgia, for which I wish to offer my amendment in the form of a substitute, is designed to preserve a basically valid proposition in that amendment—but seeks to substitute language which I think is essential.

The underlying law, which is unchanged by the bill, provides that in any action or proceeding under this title, the court, in its discretion, may allow the prevailing party—other than the Commission or the United States—a reasonable attorney's fee as part of the cost; and the Commission and the United States shall be liable for the costs the same as a private person.

The proposed substitute would liberalize that provision in two basic respects. First, it would add authority to award costs to the prevailing party with respect to the cost of a proceeding before the Commission. The underlying law to which I have referred does not permit the awarding of fees with respect to proceedings before the Commission. So it liberalizes the fee awarding powers in that respect.

Second, it makes awarding of such fees mandatory for small businesses and for unions, when they prevail before the Commission or before the court, rather than leaving it discretionary as it now is.

It would provide that employers having between eight to 25 employees or unions having between eight to 25 members, could receive reasonable attorneys' fees up to \$5,000; and large employers and unions, those having employees or union members in a number between 25 and 100, would receive up to \$2,500—if they are the prevailing party.

Principally, Mr. President, my objection to the amendment offered by the Senator from Georgia is that while I think it justifiably recognizes the ques-

tion of costs that may be visited on small businesses or small unions, it has built within it an unfortunate demension—a dimension allowing Government funds to be used to finance resistance to legitimate cases; under the original amendment, it is not necessary that the small business or the union be the prevailing party. Thus, they can take a case that is without any foundation and, at Government expense and for long periods of time, hold proceedings before the Commission or hold proceedings before the courts and be awarded fees—no matter how groundless the case is.

It seems to me that this could encourage, at Government expense, resistance through the assertion of groundless claims; and it could encourage litigation in cases that should otherwise be settled. Our substitute would bring much needed relief to small business and small unions in cases where there was some hope that they would be the prevailing party. It would bring relief to that extent, and also bring relief for the cost of such proceedings before the Commission as well as before the courts.

I think that modification retains the basic validity of the amendment offered by the Senator from Georgia without risking, in addition, the problem to which I have made reference.

Mr. JAVITS. Mr. President, will the Senator from Minnesota yield for one or two questions?

Mr. MONDALE. I yield.

Mr. JAVITS. These questions need to be answered. Does the amendment take into consideration where the Commission or the Attorney General is not a party to litigation, where it is strictly private litigation between a complainant and a respondent? Is it then expected that the United States will reimburse the prevailing party if he is a small business?

Mr. MONDALE. It is not contemplated that that be the case. If there is some vagueness in the amendment, it should be modified to avoid that possibility.

Mr. JAVITS. I think the amendment will have to be clarified if that is the intention of the moving party.

Mr. MONDALE. We can prepare a modification—

Mr. JAVITS. That will have to be submitted by someone as an amendment to the amendment by unanimous consent—

Mr. MONDALE. I realize that; but I do not believe there will be any objection to it.

Mr. JAVITS. We should try, and time may not allow, but we should try, before we wind this up, to put some estimate on record as to the expected cost. Someone should get in touch with the Commission and get some estimate. After all, this is not an inappreciable sum of money. There are 20,000 complaints before the Commission already, so that if the cost there would be \$5,000 apiece, it could well run into a considerable sum of money and we should have some idea on record as to how frequently this is likely to occur.

Mr. ERVIN. Mr. President, I hate to see my good friend from New York grieving over the problem of lack of money. I understand that we are going to have a

national debt limit of some \$480 billion, so that we will have plenty of deficit in which to finance anything.

Mr. MONDALE. I think the Senator from North Carolina is correct.

Mr. GAMBRELL. Mr. President, I object to the amendment, because it would wholly thwart the purpose of the amendment, which is to offer some relief, some meaningful relief, to small business. I can appreciate the concern of the Senator from New York over the cost of this to the Government. I think that no one can claim to have expressed any greater concern over the cost of the Government than I have during the past year. However, I think that as long as we are going to inquire about what the cost of this is to anybody, we might get the Small Business Administration or even the EEOC, if it has any feeling for small business, to ascertain the cost of the 20,000 investigatory proceedings that the Senator from New York has mentioned to the small businesses around this country, which small businesses have defended themselves in good faith in these proceedings.

I suggest to the Senate and to the Senator from New York that this has a devastating impact on small business which we are undertaking to relieve. And we are talking about small business. We are not talking about proceedings against someone who has enormous resources.

We are talking about small businesses that are going to be used as guinea pigs in determining the force and effect of this act. There is not any question, as the Senator from Minnesota has indicated, about encouraging groundless defenses. In many cases, as the Senator from Minnesota and other lawyers know and clients know, we do not know whether the defenses are groundless or not until they have been submitted for adjudication.

The limits that I have mentioned provide that only so much can be put into this. And specifically the limit that the respondent should have of conducting his defense in a manner consistent with the purpose of this power will prevent any groundless defenses.

In other words, the Senator from Minnesota said they would be without any foundation or for a long period of time. Actually his substitute would encourage people to prevail in a case rather than pursuing an effort to settle. If we hold out that he has a mandatory fee coming to him if he wins, and he has a 50-50 chance by either settling or continuing, he will say, "By golly, I have a 50-50 chance if I get my case litigated and win." And even if he has defended himself in good faith, even though he would lose, my experience would be that he would say, "Let's settle this case. I will agree that I have violated the act in certain minor particulars. I will have my fees allowed."

It seems to me the incentive is entirely different from that suggested by the Senator from Minnesota. That, in fact, perfectly clearly indicates the intention of my amendment and the defects of his, referring to the incentive built in under the measure he advocates,

whereas the incentive is to try to settle the case and get it out of the way.

To give that discretion to the Commission, as he has indicated, is simply to say that the Commission can use this as bait to get people to agree to things that they would not otherwise agree to.

I think the Commission already has too much discretion and that this should be put into statutory law, because the courts and the Legislature ought to tell the people what their rights are and they ought not to have to be weighed in the balance on a case-by-case basis to see what today's discretion or today's Commission might say.

For that reason I very strongly oppose the substitute amendment offered by the Senator from Minnesota, because it actually runs in the face of making any fair provision for small business.

Under the situation suggested, in legal aid cases where we have, under our legal services program, provisions in the Federal law for paying the fees for defendants in Federal courts, if a defendant is found guilty of a bank robbery, the court cannot allow the lawyer any fee. However, if he is found to be innocent, the lawyer will get a big fee.

I submit that if a man enters a plea of innocent, he is entitled to a fair defense regardless. And the same principle applies here if the Government has any commitment at all against the abuse of small business.

Mr. President, I hope the substitute amendment is rejected.

Mr. MONDALE. Mr. President, what is the time situation?

The PRESIDING OFFICER. The Senator from Minnesota has 7 minutes remaining, and the Senator from Georgia has 10 minutes remaining.

Mr. MONDALE. Mr. President, I ask unanimous consent to modify my amendment to add in the second sentence of subsection (w) of my substitute amendment, following the words "Any prevailing party" the words "in any proceeding brought by or against the Commission or the United States under this title," and further to add in the first line of the second paragraph of subsection (w) after the words "Any prevailing party" the words "in such a proceeding."

The modification is designed to deal with a problem which the Senator from New York brought up; namely, a wholly private proceeding in which the Commission is not involved. I would hope that there would be no objection.

The PRESIDING OFFICER. Will the Senator from Minnesota send his modification to the desk?

Is there objection? The Chair hears none, and the amendment is so modified.

Mr. MONDALE. Mr. President, I hope that there is no misunderstanding on the desirability of bringing relief to the small businesses and small unions in legitimate cases where they are the prevailing party. What we have proposed by way of substitute here greatly liberalizes that relief. To the credit of the Senator from Georgia, it was his amendment which helped to make the need for such action apparent.

We do so in two ways.

First, we make fees available on a discretionary basis with respect to proceed-

ings before the Commission, as well as to proceedings before the court.

Second, we make the provision of such costs mandatory for small businesses and for small unions when they are prevailing parties; these fees would not be discretionary for small unions and for small businesses.

To go beyond that is to bankroll resistance and to encourage baseless litigation. It would put the Government in the business of financing resistance to the very legislative objective we seek to obtain here.

Mr. President, both the Senator from Georgia and I are attorneys. We know that one of the sobering realities in the practice of law, and one which prevents many groundless lawsuits from being brought or defended, is the practicalities and the legitimacy of the case itself. A lawyer is not likely to take a case which has no basis to it simply to resist or to delay or to slow down justice.

Under the principle embodied in the amendment offered by the Senator from Georgia, we would be saying, "Never mind how baseless your lawsuit is and never mind how discriminatory you have been in your employment practices, you will get your fees anyway, as long as you do not act in an unethical fashion, up to \$5,500." We say, instead, "If you are the prevailing party, you will be entitled to part or all of the cost of this litigation."

That encourages litigation of responsible lawsuits. But to go beyond that, in my opinion, would be to encourage and to bankroll resistance to the objectives of this legislation. I, therefore, hope that my amendment in the nature of a substitute will be adopted.

Mr. GAMBRELL. Mr. President, if it is appropriate, I should like at this time to offer a clarifying amendment to the pending amendment, No. 833, in accordance with the comments of the Senator from New York (Mr. JAVITS).

The PRESIDING OFFICER. The Chair advises the Senator from Georgia that an amendment to the amendment would be in the third degree and would not be in order. It is possible to modify the amendment by unanimous consent.

Mr. GAMBRELL. Mr. President, if it is in order at this time to clarify the amendment, I ask unanimous consent, in accordance with the comments of the Senator from New York, to modify the amendment.

The PRESIDING OFFICER. The Chair wishes to ask the Senator from Georgia whether his amendment is to the amendment of the Senator from Georgia.

Mr. GAMBRELL. It is to the amendment of the Senator from Georgia.

The PRESIDING OFFICER. That would be in order. The Chair withdraws his comments as to the proposed amendment being in the third degree.

Mr. GAMBRELL. Mr. President, I will state what the amendments are.

The first amendment would be on line 7, page 1. After the word "respondent," insert "in a proceeding brought by Commission or by the United States under this title."

On page 2, line 4, after the word "respondent," insert "in such proceeding."

On line 24, prior to the words "no enforcement," insert "following a final de-

termination whether respondent engaged in an unlawful employment practice."

The purpose of the amendments is to make it clear that the fees would be payable only in the event that the proceeding was brought by the Commission or the United States, and also to make it clear that fees would not be payable until after the Commission had made its determination in such proceeding.

I ask unanimous consent that the modifications be made.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

Will the Senator please send his modifications to the desk?

Mr. GAMBRELL. I send the modifications to the desk. I yield back the remainder of my time.

Mr. MONDALE. I yield back the rest of my time.

The PRESIDING OFFICER. All time has been yielded back. The yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. BYRD of West Virginia. I announce that the Senator from Texas (Mr. BENTSEN), the Senator from Missouri (Mr. EAGLETON), the Senator from Alaska (Mr. GRAVEL), the Senator from Oklahoma (Mr. HARRIS), the Senator from Indiana (Mr. HARTKE), the Senator from Minnesota (Mr. HUMPHREY), the Senator from Washington (Mr. JACKSON), the Senator from Washington (Mr. MAGNUSON), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Maine (Mr. MUSKIE), the Senator from Alabama (Mr. SPARKMAN), the Senator from Illinois (Mr. STEVENSON), the Senator from California (Mr. TUNNEY), and the Senator from Wyoming (Mr. MCGEE) are necessarily absent.

I further announce that, if present and voting, the Senator from California (Mr. TUNNEY), the Senator from Illinois (Mr. STEVENSON), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Washington (Mr. MAGNUSON), the Senator from Washington (Mr. JACKSON), the Senator from Oklahoma (Mr. HARRIS), and the Senator from Minnesota (Mr. HUMPHREY) would each vote "yea."

Mr. GRIFFIN. I announce that the Senator from Tennessee (Mr. BAKER), the Senator from New Hampshire (Mr. COTTON), the Senator from Arizona (Mr. FANNIN), the Senator from Texas (Mr. TOWER), and the Senator from North Dakota (Mr. YOUNG) are necessarily absent.

The Senator from Tennessee (Mr. BROCK), the Senator from Wyoming (Mr. HANSEN), and the Senator from Maryland (Mr. MATHIAS) are absent on official business.

The Senator from South Dakota (Mr. MUNDT) is absent because of illness.

The Senator from Nebraska (Mr. CURTIS), and the Senator from Maryland (Mr. BEALL) are detained on official business.

On this vote, the Senator from Nebraska (Mr. CURTIS) is paired with the Senator from Texas (Mr. TOWER). If



present and voting, the Senator from Nebraska would vote "yea" and the Senator from Texas would vote "nay."

The result was announced—yeas 54, nays 21, as follows:

## [No. 21 Leg.]

## YEAS—54

Aiken	Fong	Packwood
Allott	Goldwater	Pastore
Anderson	Gurney	Pearson
Bayh	Hart	Pell
Bellmon	Hatfield	Percy
Boggs	Hruska	Proxmire
Brooke	Hughes	Randolph
Buckley	Inouye	Ribicoff
Burdick	Javits	Roth
Byrd, W. Va.	Kennedy	Saxbe
Cannon	Mansfield	Schweiker
Case	McIntyre	Scott
Church	Metcalf	Smith
Cook	Miller	Stafford
Cooper	Mondale	Stevens
Cranston	Montoya	Symington
Dole	Moss	Weicker
Dominick	Nelson	Williams

## NAYS—21

Allen	Ervin	Long
Bennett	Fulbright	McClellan
Bible	Gambrell	Spong
Byrd, Va.	Griffin	Stennis
Chiles	Hollings	Taft
Eastland	Jordan, N.C.	Talmadge
Ellender	Jordan, Idaho	Thurmond

## NOT VOTING—25

Baker	Hansen	Mundt
Beall	Harris	Muskie
Bentsen	Hartke	Sparkman
Brock	Humphrey	Stevenson
Cotton	Jackson	Tower
Curtis	Magnuson	Tunney
Eagleton	Mathias	Young
Fannin	McGee	
Gravel	McGovern	

So Mr. MONDALE's amendment to Mr. GAMBRELL's amendment was agreed to.

The PRESIDING OFFICER. The question recurs on agreeing to the amendment of the Senator from Georgia (Mr. GAMBRELL) as amended.

Mr. GRIFFIN. Mr. President, I ask for the yeas and nays.

The yeas and nays were ordered.

Mr. MONDALE. Mr. President, I ask unanimous consent that the name of the distinguished Senator from West Virginia (Mr. RANDOLPH) be added as a cosponsor of the substitute amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PASTORE. Mr. President, may we have order?

The PRESIDING OFFICER. The Senator's observation is well taken. The Senate will be in order. Senators will take seats or retire to the cloakroom.

Mr. GAMBRELL. Mr. President, may I inquire what the time situation is?

The PRESIDING OFFICER. There is no limitation on time. The 10-minute agreement was entered into as between the Senator from Minnesota and the Senator from Georgia on the amendment to the amendment of the Senator from Georgia. There is no time limitation on the amendment of the Senator from Georgia as amended by the amendment of the Senator from Minnesota.

Mr. GAMBRELL. Mr. President, I would like to state, then, while other Senators are here, that I consider the substitute offered by the Senator from Minnesota to be a tremendous improvement on the present law, and while still not adequate in accordance with the amendment which I offered, it is cer-

tainly an improvement in favor of the interests of small business. Therefore, I shall vote in favor of the amendment as amended by the substitute amendment offered by the Senator from Minnesota, and encourage my colleagues to do likewise.

I do not intend to take up the time of the Senate in dealing further with the matter, unless someone else wishes to speak.

The PRESIDING OFFICER (Mr. WEICKER). The question is on agreeing to the amendment of the Senator from Georgia (Mr. GAMBRELL) as amended by the amendment of the Senator from Minnesota (Mr. MONDALE). On this question, the yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. BYRD of West Virginia. I announce that the Senator from Texas (Mr. BENTSEN), the Senator from Missouri (Mr. EAGLETON), the Senator from Alaska (Mr. GRAVEL), the Senator from Oklahoma (Mr. HARRIS), the Senator from Indiana (Mr. HARTKE), the Senator from Minnesota (Mr. HUMPHREY), the Senator from Washington (Mr. JACKSON), the Senator from North Carolina (Mr. JORDAN), the Senator from Washington (Mr. MAGNUSON), the Senator from Wyoming (Mr. MCGEE), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Maine (Mr. MUSKIE), the Senator from Alabama (Mr. SPARKMAN), the Senator from Illinois (Mr. STEVENSON), and the Senator from California (Mr. TUNNEY) are necessarily absent.

I further announce that the Senator from Mississippi (Mr. EASTLAND) is absent because of illness.

I further announce that, if present and voting, the Senator from Alaska (Mr. GRAVEL), the Senator from Oklahoma (Mr. HARRIS), the Senator from Minnesota (Mr. HUMPHREY), the Senator from Washington (Mr. JACKSON), the Senator from North Carolina (Mr. JORDAN), the Senator from Washington (Mr. MAGNUSON), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Illinois (Mr. STEVENSON), and the Senator from California (Mr. TUNNEY) would each vote "yea."

Mr. GRIFFIN. I announce that the Senator from Tennessee (Mr. BAKER), the Senator from New Hampshire (Mr. COTTON), the Senator from Arizona (Mr. FANNIN), the Senator from Texas (Mr. TOWER), and the Senator from North Dakota (Mr. YOUNG) are necessarily absent.

The Senator from Tennessee (Mr. BAKER), the Senator from Wyoming (Mr. HANSEN), and the Senator from Maryland (Mr. MATHIAS) are absent on official business.

The Senator from South Dakota (Mr. MUNDT) is absent because of illness.

The Senator from Nebraska (Mr. CURTIS) is detained on official business.

If present and voting, the Senator from Nebraska (Mr. CURTIS) and the Senator from Texas (Mr. TOWER) would each vote "yea."

The result was announced—yeas 72, nays 2, as follows:

## [No. 22 Leg.]

## YEAS—72

Aiken	Ellender	Moss
Allen	Ervin	Nelson
Allott	Fong	Packwood
Anderson	Fulbright	Pastore
Bayh	Gambrell	Pearson
Beall	Goldwater	Pell
Bellmon	Gurney	Percy
Bennett	Hart	Proxmire
Bible	Hatfield	Randolph
Boggs	Hollings	Ribicoff
Brooke	Hruska	Roth
Buckley	Hughes	Saxbe
Burdick	Inouye	Schweiker
Byrd, Va.	Javits	Scott
Byrd, W. Va.	Jordan, Idaho	Smith
Cannon	Kennedy	Spong
Case	Long	Stafford
Chiles	Mansfield	Stennis
Church	McClellan	Stevens
Cook	McIntyre	Symington
Cooper	Metcalf	Talmadge
Cranston	Miller	Thurmond
Dole	Mondale	Weicker
Dominick	Montoya	Williams

## NAYS—2

Griffin	Taft
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## NOT VOTING—26

Baker	Hansen	McGovern
Bentsen	Harris	Mundt
Brock	Hartke	Muskie
Cotton	Humphrey	Sparkman
Curtis	Jackson	Stevenson
Eagleton	Jordan, N.C.	Tower
Eastland	Magnuson	Tunney
Fannin	Mathias	Young
Gravel	McGee	

So Mr. GAMBRELL's amendment, as amended, was agreed to.

Mr. JAVITS. Mr. President, I move to reconsider the vote by which the amendment was agreed to.

Mr. WILLIAMS. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

## AMENDMENT NO. 830

Mr. CHILES. Mr. President, I send to the desk a modification of my amendment No. 830 and ask that it be stated.

The PRESIDING OFFICER. The amendment as modified will be stated.

The assistant legislative clerk read as follows:

On page 59, line 25, following the comma, insert the following: "for the limited purpose of publicizing in the media the Commission and its activities".

Mr. CHILES. Mr. President, I ask for the yeas and nays on the amendment.

The yeas and nays were ordered.

Mr. CHILES. Mr. President, last week, the distinguished Senator from Alabama (Mr. ALLEN) offered an amendment to section 705, subsection (e), to strike that section, whereby the Commission could, contrary to present statutes, accept voluntary and uncompensated services. That amendment was rejected.

At that time, the distinguished chairman of the committee, the Senator from New Jersey (Mr. WILLIAMS), made statements in the RECORD to the extent that it was necessary or that they felt it was good for the Commission to be able to accept voluntary services solely to be able to publicize the work and activities of the Commission. I think the example was given that it was valid to have a provision whereby a personality like Bill Cosby could say on television, "If you don't think you have been treated fairly, there is a Commission, and you can go to that

Commission and find out what your rights are."

Mr. President, I am not sure that it is necessary to have any language in the bill, regardless of our present statutes, for any person to be able to speak through any of the media to publicize anything that is the law of the United States.

The first amendment of the Constitution and the other provisions would certainly give to every citizen the right to speak but, at the same time, I was concerned that the amendment by the Senator from Alabama did fail, and the language now in the present law certainly is sufficiently broad which would lend itself to the Commission, regardless of what the present purpose is today, and regardless of what Congress is today. Certainly the language was there, and sufficiently broad, and would allow the Commission to accept any number of volunteers up into the thousands for anyone, regardless of what the motivation and the interest is, to go to the Commission and, the way the law is now framed, have the right not only to make findings of fact but also to issue cease-and-desist orders of those findings.

If that is not the purpose, and we say it is not, then we should narrow the scope of the law. That is what the amendment I have introduced proposes to do. In the language, where we seek to accept voluntary or uncompensated services, we would strike the express limitation or limiting language for the limited purpose of publicizing in the media the Commission and its activities. This would allow the Bill Cosby situation—it is allowable anyway—but if we strike the whole thing it is allowable, but certainly allowable under the language and, at the same time, we would narrow it, as I think the Senator from Alabama was attempting to do in his amendment; that is, to clarify that we would not have this open for any group of volunteers which felt it had to, or expressed itself as wanting to, come in and be clothed with authority to investigate and perhaps to prosecute activities of the Commission when we do not do this anyway in any agency of Government.

I first considered that we bring this to the attention of the Senate by way of drawing up an amendment which would say that any of these volunteers who were so accepted by the Commission would also be entitled to be volunteers with the FBI or the Internal Revenue Service. I think, when we think in those terms, none of us would consider having volunteers for any purpose; and yet the express purpose of this, we are told, is not for that but only to publicize it. If that is so, then I would think this amendment would clarify and narrow it. I urge adoption of my amendment.

Mr. WILLIAMS. Mr. President, there was an amendment offered to strike from the bill the provisions that permitted acceptance of volunteer services. It was an amendment which did not carry. This provision stayed, in. Notwithstanding that vote, there has been some discussion of just what services are contemplated under the provisions in the bill.

As I have listened to the Senator from Florida, it seemed to me that some of the anxieties expressed were expressed in

extravagant terms as to what it really meant.

As I debated, in opposition to the original amendment, I indicated that it was the basic purpose of the provisions in the bill to permit the Commission to receive the services of volunteers who wanted to publicize the work of the Commission and what it was all about. I mentioned certain people who do work and are prominent in the media. I recall mentioning particularly Bill Cosby. It may be my impression but the limitations we were contemplating is that this is an amendment that clarifies in bill language the purpose that I thought were the intentions in the bill and, for that reason, it clarifies and pinpoints the activities that can be accepted publicizing in the media the Commission and its activities. It is certainly acceptable to me. The Senator from New York and I have discussed this and he shares my view. It is acceptable to him as well.

The Senator's clarification is in good order.

#### AUTHORIZATION FOR COMMITTEES OF THE SENATE TO HAVE 10 MORE DAYS TO FILE THEIR ANNUAL EXPENDITURE RESOLUTIONS FOR 1972

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that committees of the Senate which have not filed their annual expenditures authorization resolutions for 1972, pursuant to 133(g) of the Legislative Reorganization Act, have 10 more days to file their resolutions, since this is the last day under the act.

The PRESIDING OFFICER (Mr. WEICKER). Without objection, it is so ordered.

#### ORDER FOR RECOGNITION OF SENATORS BYRD AND SPONG OF VIRGINIA ON THURSDAY NEXT

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that on Thursday next, immediately following the recognition of the two leaders under the standing order, the distinguished senior Senator from Virginia (Mr. BYRD) and the distinguished junior Senator from Virginia (Mr. Spong) each be recognized for not to exceed 15 minutes, and in that order.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### QUORUM ROLL

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum. The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### MESSAGE FROM THE PRESIDENT

A message in writing from the President of the United States was communi-

cated to the Senate by Mr. Leonard, one of his secretaries.

#### REPORT OF STUDY AND SURVEYS OF HAZARDS TO HUMAN HEALTH AND SAFETY FROM COMMON ENVIRONMENTAL POLLUTION—MESSAGE FROM THE PRESIDENT

The PRESIDING OFFICER (Mr. WEICKER) laid before the Senate the following message from the President of the United States, which, with the accompanying report, was referred to the Committee on Labor and Public Welfare:

#### To the Congress of the United States:

The Department of Health, Education and Welfare and the Environmental Protection Agency have jointly studied the health effects of environmental pollution in accordance with Title V of Public Law 91-515. Their findings, which appear in this report, deserve the attention of the Congress and of all Americans who are concerned about environmental quality and its impact on the health of our people.

This study gives further evidence of the need for new legislation in this vital field. I have forwarded to the Congress a number of recommendations for meeting this challenge, and I again urge that they be given early and favorable consideration. My proposals include:

Toxic Substances Control Act of 1971.  
Federal Environmental Pesticide Control Act of 1971.

The Department of Human Resources Act.

The Department of Natural Resources Act.

Marine Protection Act of 1971.

Noise Control Act of 1971.

Health Maintenance Organization Assistance Act of 1971.

These measures, together with proposals which were contained in my Health Message of February 18, 1971, and my Environmental Message of February 8, 1971, and other actions which I will propose to the Congress this year, would, in my view, provide the essential tools for dealing with the health effects of environmental pollution in the years ahead.

This report identifies important needs concerning the determination of hazards to human health and safety resulting from common environmental pollution. It also sets forth a number of specific recommendations for meeting these problems. I am directing the Secretary of Health, Education and Welfare and the Administrator of the Environmental Protection Agency to see that these needs are promptly and thoroughly addressed.

As I take this action, I would also note that impressive progress has already been made in coordinating the efforts of these two agencies. For example, the joint establishment of the National Center for Toxicological Research will do much to improve our knowledge in this area. I would also point out that the Director of the Office of Science and Technology, in cooperation with the Chairman of the Council on Environmental Quality, has established a new interagency panel to improve the coordination and utilization of environmental health re-



search, and that we have been taking a number of other steps to improve the surveillance and monitoring of environmental hazards.

The problems which this report discusses cannot be addressed effectively without the full attention and cooperation of both the legislative and executive branches. I pledge that this administration will continue to give a high priority to the task of preventing hazards to human health arising from environmental pollution, and I look forward to working closely with the Congress in achieving this goal.

RICHARD NIXON.

THE WHITE HOUSE, January 31, 1972.

#### EQUAL EMPLOYMENT OPPORTUNITIES ENFORCEMENT ACT OF 1971

The Senate continued with the consideration of the bill (S. 2515) to further promote equal employment opportunities for American workers.

The PRESIDING OFFICER. All time on the pending amendment has been yielded back.

The question is on agreeing to the amendment, No. 830, as modified, of the Senator from Florida (Mr. CHILES).

On this question the yeas and nays have been ordered, and the clerk will call the roll.

The assistant legislative clerk called the roll.

Mr. BYRD of West Virginia. I announce that the Senator from Texas (Mr. BENTSEN), the Senator from Missouri (Mr. EAGLETON), the Senator from Arkansas (Mr. FULBRIGHT), the Senator from Alaska (Mr. GRAVEL), the Senator from Oklahoma (Mr. HARRIS), the Senator from Indiana (Mr. HARTKE), the Senator from Minnesota (Mr. HUMPHREY), the Senator from Washington (Mr. JACKSON), the Senator from Louisiana (Mr. LONG), the Senator from Washington (Mr. MAGNUSON), the Senator from Wyoming (Mr. McGEE), the Senator from South Dakota (Mr. McGOVERN), the Senator from New Hampshire (Mr. MCINTYRE), and the Senator from Maine (Mr. MUSKIE) are necessarily absent.

I further announce that the Senator from Alabama (Mr. SPARKMAN), the Senator from Illinois (Mr. STEVENSON), and the Senator from California (Mr. TUNNEY) are necessarily absent.

I further announce that the Senator from Mississippi (Mr. EASTLAND), is absent because of illness.

I further announce that, if present and voting, the Senator from California (Mr. TUNNEY), the Senator from Washington (Mr. MAGNUSON), the Senator from Washington (Mr. JACKSON), the Senator from Minnesota (Mr. HUMPHREY), and the Senator from Illinois (Mr. STEVENSON) would each vote "yea."

Mr. GRIFFIN. I announce that the Senator from Tennessee (Mr. BAKER), the Senator from New Hampshire (Mr. COTTON), the Senator from Arizona (Mr. FANNIN), the Senator from Texas (Mr. TOWER), and the Senator from North Dakota (Mr. YOUNG) are necessarily absent.

The Senator from Tennessee (Mr. BROCK), the Senator from Wyoming

(Mr. HANSEN) and the Senator from Maryland (Mr. MATHIAS) are absent on official business.

The Senator from South Dakota (Mr. MUNDT) is absent because of illness.

The Senator from Nebraska (Mr. CURTIS), the Senator from Arizona (Mr. GOLDWATER), and the Senator from Pennsylvania (Mr. SCOTT) are detained on official business.

If present and voting, the Senator from Nebraska (Mr. CURTIS), the Senator from Pennsylvania (Mr. SCOTT), and the Senator from Texas (Mr. TOWER) would each vote "yea."

The result was announced—yeas 67, nays 3, as follows:

[No. 23 Leg.]

YEAS—67

Aiken	Ellender	Pastore
Allen	Ervin	Pearson
Allott	Fong	Pell
Anderson	Gambrell	Percy
Beall	Griffin	Proxmire
Bellmon	Gurney	Randolph
Bennett	Hatfield	Ribicoff
Bible	Hollings	Roth
Boggs	Hruska	Saxbe
Brooke	Hughes	Schweiker
Buckley	Inouye	Smith
Burdick	Javits	Spong
Byrd, Va.	Jordan, N.C.	Stafford
Byrd, W. Va.	Jordan, Idaho	Stennis
Cannon	Mansfield	Stevens
Case	McClellan	Symington
Chiles	Metcalf	Taft
Church	Miller	Talmadge
Cook	Mondale	Thurmond
Cooper	Montoya	Welcker
Cranston	Moss	Williams
Dole	Nelson	
Dominick	Packwood	

NAYS—3

Bayh	Hart	Kennedy
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NOT VOTING—30

Baker	Gravel	McGovern
Bentsen	Hansen	McIntyre
Brock	Harris	Mundt
Cotton	Hartke	Muskie
Curtis	Humphrey	Scott
Eagleton	Jackson	Sparkman
Eastland	Long	Stevenson
Fannin	Magnuson	Tower
Fulbright	Mathias	Tunney
Goldwater	McGee	Young

So Mr. CHILES' amendment, as modified, was agreed to.

Mr. CHILES. Mr. President, I move that the Senate reconsider the vote by which the amendment was agreed to.

Mr. JAVITS. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

AMENDMENT NO. 815

Mr. ERVIN. Mr. President, on behalf of the distinguished Senator from Alabama and myself, I call up amendment No. 815 and ask that it be stated.

The assistant legislative clerk read as follows:

On page 33, strike out everything from the word "or" on line 20 through the word "activities" on line 24, and insert the following in lieu thereof: "or to the employment of any individuals by any educational institution or by any religious corporation, association, or society."

Mr. BYRD of West Virginia. Mr. President, for the information of Senators, there will be no more rollcall votes today. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

(The remarks of Mr. BYRD of West Virginia at this point, on the introduction of S. 3097, on behalf of the Senator from Washington (Mr. JACKSON), are printed in the earlier part of the RECORD under Statements on Introduced Bills and Joint Resolutions.)

#### ORDER FOR ADJOURNMENT UNTIL 9:15 A.M. TOMORROW

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that when the Senate completes its business today, it stand in adjournment until 9:15 a.m. tomorrow.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### ORDER FOR RECOGNITION OF SENATORS TOMORROW

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that following the remarks of the two leaders tomorrow morning, the distinguished senior Senator from Virginia (Mr. BYRD) be recognized for not to exceed 15 minutes, and that he be followed by the distinguished Senator from South Carolina (Mr. HOLLINGS) for not to exceed 15 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BYRD of West Virginia. Mr. President, before moving to adjourn, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### PROGRAM

Mr. BYRD of West Virginia. Mr. President, the program for tomorrow is as follows:

The Senate will convene at 9:15 a.m. After the two leaders have been recognized under the standing order, the following Senators will be recognized for not to exceed 15 minutes each, and in the order stated: Senators BYRD of West Virginia, HOLLINGS, PEARSON, FANNIN, ELLENDER, GOLDWATER, and YOUNG.

There will then be a period for the transaction of routine morning business not to extend beyond 11:30 a.m.

At 11:30 a.m. the unfinished business will be laid before the Senate, and the 1 hour for debate on the motion to invoke cloture, under rule XXII, will begin to run.

At 12:30 p.m. the automatic quorum call will begin, to be followed immediately by a mandatory rollcall vote.

The rollcall vote on the motion to invoke cloture should come, therefore, at about 12:40 or 12:45 p.m.

## ADJOURNMENT UNTIL 9:15 A.M.

Mr. BYRD of West Virginia. Mr. President, if there be no further business to come before the Senate, I move, in accordance with the previous order, that the Senate stand in adjournment until 9:15 a.m. tomorrow.

The motion was agreed to; and (at 4:36 p.m.) the Senate adjourned until tomorrow, Tuesday, February 1, 1972, at 9:15 a.m.

## NOMINATIONS

Executive nominations received by the Senate, January 31, 1972:

## COUNCIL OF ECONOMIC ADVISERS

Marina von Neumann Whitman, of Pennsylvania, to be a member of the Council of Economic Advisers, vice Paul W. McCracken, resigned.

## DEPARTMENT OF THE TREASURY

William B. Camp, of Maryland, to be Comptroller of the Currency, reappointment.

## DEPARTMENT OF THE JUSTICE

Wilbur H. Dillahunt, of Arkansas, to be U.S. attorney for the eastern district of Arkansas for the term of 4 years, reappointment.

## SUBVERSIVE ACTIVITIES CONTROL BOARD

John S. Patterson, of Maryland, to be a member of the Subversive Activities Control Board for the term expiring August 9, 1976, reappointment.

## U.S. AIR FORCE

The following-named officers for temporary appointment in the United States Air Force under the provisions of Chapter 839, Title 10 of the United States Code:

## To be brigadier general

Col. Solomon E. Lifton, xxx-xx-xxxx FR, Regular Air Force, Medical.  
Col. Stanley H. Bear, 17-12-5613FR, Regular Air Force, Medical.  
Col. George E. Reynolds, xxx-xx-xxxx FR, Regular Air Force, Medical.  
Col. Paul Krause, xxx-xx-xxxx FR, Regular Air Force.  
Col. Howard E. McCormick, xxx-xx-xxxx FR, Regular Air Force.  
Col. Hilding L. Jacobson, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. William H. Fairbrother, xxx-xx-xxxx FR, Regular Air Force.  
Col. Leslie J. Campbell, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. Paul W. Myers, xxx-xx-xxxx FR, Regular Air Force, Medical.  
Col. John R. Kelly, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. Frank O. House, xxx-xx-xxxx FR, Regular Air Force.  
Col. William B. Yancey, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. William F. Georgi, xxx-xx-xxxx FR, Regular Air Force.  
Col. John G. Albert, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Charles L. Willson, xxx-xx-xxxx FR, (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Clyde R. Denniston, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. Timothy I. Ahern, xxx-xx-xxxx FR, Regular Air Force.  
Col. Harold E. Confer, xxx-xx-xxxx FR, Regular Air Force.  
Col. Robert L. Moeller, xxx-xx-xxxx FR, Regular Air Force.  
Col. Ethel A. Hoefly, xxx-xx-xxxx FR, Regular Air Force, Nurse.  
Col. Glenn R. Sullivan, xxx-xx-xxxx FR, Regular Air Force.  
Col. William A. Temple, xxx-xx-xxxx FR, Regular Air Force.

Col. David D. Bradburn, xxx-xx-xxxx FR, Regular Air Force.  
Col. Ranauld T. Adams, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. John W. Burkhart, xxx-xx-xxxx FR, Regular Air Force.  
Col. Carl G. Schneider, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Richard C. Henry, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Raymond L. Haupt, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Lucius Theus, xxx-xx-xxxx FR, Regular Air Force.  
Col. Robert C. Thompson, xxx-xx-xxxx FR, Regular Air Force.  
Col. John M. Rose, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. Kenneth E. Allery, xxx-xx-xxxx FR, Regular Air Force.  
Col. Lawrence N. Gordon, xxx-xx-xxxx FR, Regular Air Force.  
Col. Guy E. Hairston, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. Louis W. La Salle, xxx-xx-xxxx FR, Regular Air Force.  
Col. John R. Spalding, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. Benton K. Partin, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) United States Air Force.  
Col. Mervin M. Taylor, xxx-xx-xxxx FR, Regular Air Force.  
Col. Walter F. Daniel, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Robert S. Berg, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Lloyd R. Leavitt, Jr., xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) United States Air Force.  
Col. Ralph J. Maglione, Jr., xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Eugene B. Sterling, xxx-xx-xxxx FR, Regular Air Force.  
Col. Lyle E. Mann, xxx-xx-xxxx FR, Regular Air Force.  
Col. Robert E. Sadler, xxx-xx-xxxx FR, Regular Air Force.  
Col. James S. Murphy, xxx-xx-xxxx FR, Regular Air Force.  
Col. William H. Ginn, Jr., xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Bennie L. Davis, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. James A. Young, xxx-xx-xxxx FR, Regular Air Force.  
Col. Charles G. Cleveland, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Charles A. Gabriel, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Winfield W. Scott, Jr., xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Thomas P. Stafford, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Richard M. Baughn, xxx-xx-xxxx FR, Regular Air Force.  
Col. Richard H. Schoeneman, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Robert F. Titus, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Thomas M. Sadler, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Kenneth P. Miles, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Fred A. Treyz, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.

Col. David E. Rippetoe, Jr., xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Freddie L. Poston, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Lovic P. Hodnette, Jr., xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. Hoyt S. Vandenberg, Jr., xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Billy F. Rogers, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Richard L. Lawson, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Walter D. Druen, Jr., xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. James R. Brickel, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. James O. Putnam, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Leland C. Shepard, Jr., xxx-xx-xxxx FR, Regular Air Force.  
Col. Rupert H. Burris, xxx-xx-xxxx FR, Regular Air Force.  
Col. George M. Wentsch, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. John C. Toomay, xxx-xx-xxxx FR, Regular Air Force.  
Col. James R. Hildreth, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Louis G. Leiser, xxx-xx-xxxx FR (lieutenant colonel, Regular Air Force) U.S. Air Force.  
Col. John F. Barnes, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force.  
Col. Henry J. Meade, xxx-xx-xxxx FR (major, Regular Air Force) U.S. Air Force, chaplain.

## U.S. NAVY

The following named officers of the Naval Reserve for temporary promotion to the grade of rear admiral subject to qualification therefor as provided by law:

## LINE

Judson L. Smith Robert A. Hobbs  
Anthony A. Braccia Burnett H. Crawford,  
John D. Gavan Jr.  
Hugh R. Smith, Jr.

## MEDICAL CORPS

David B. Carmichael, Jr.

## SUPPLY CORPS

Raymond Hemming  
Bernard S. Browning

## CHAPLAIN CORPS

Mark R. Thompson

## DENTAL CORPS

Roman G. Ziolkowski

## IN THE ARMY

The following-named persons for appointment in the Regular Army of the United States, in the grades specified, under the provisions of title 10, United States Code, sections 3283 through 3294 and 3311:

## To be major

Perry, Joseph L., xxx-xx-xxxx

## To be captain

Ader, Adelinda C., xxx-xx-xxxx  
Brown, Kent O., xxx-xx-xxxx  
Cary, Richard B., xxx-xx-xxxx  
Coltrane, Carl W., Jr., xxx-xx-xxxx  
Hickling, James E. B., xxx-xx-xxxx  
Hogan, Edward M., xxx-xx-xxxx  
Lunsford, Richard J., Jr., xxx-xx-xxxx  
McDonald, Louis M., xxx-xx-xxxx  
Merle, Jack E., xxx-xx-xxxx  
Muller, Richard H., xxx-xx-xxxx  
Pavlicek, Raymond N., xxx-xx-xxxx  
Sweeden, William E., xxx-xx-xxxx  
Vines, Bobby L., xxx-xx-xxxx

## To be first lieutenant

Basilotto, John P., xxx-xx-xxxx  
Campbell, Julian M., Jr., xxx-xx-xxxx  
Carpen, Lindsay E., xxx-xx-xxxx  
Dally, Floyd E., xxx-xx-xxxx  
Danforth, Robert D., Jr., xxx-xx-xxxx



Davis, Floyd J., xxx-xx-xxxx  
 Dewey, Thomas F., Jr., xxx-xx-xxxx  
 Dirksa, Henry J., xxx-xx-xxxx  
 Edwards, Michael D., xxx-xx-xxxx  
 Flythe, Richard T., Jr., xxx-xx-xxxx  
 Forbes, Catherine A., xxx-xx-xxxx  
 Fraipont, Patricia A., xxx-xx-xxxx  
 Francis, John R., xxx-xx-xxxx  
 Franzello, Arty J., xxx-xx-xxxx  
 Frazier, Richard T., xxx-xx-xxxx  
 Frost, Jerry D., xxx-xx-xxxx  
 Funderburg, James C., xxx-xx-xxxx  
 Gibson, Stephen C., xxx-xx-xxxx  
 Gilbert, Richard H., Jr., xxx-xx-xxxx  
 Gornto, Ronald E., xxx-xx-xxxx  
 Harter, Michael L., xxx-xx-xxxx  
 Haynes, Armand P., xxx-xx-xxxx  
 Helms, Theresa D., xxx-xx-xxxx  
 Herlan, Robert C., xxx-xx-xxxx  
 Hess, Robert E., xxx-xx-xxxx  
 Hill, Dennis K., xxx-xx-xxxx  
 Jackson, Quarlie, xxx-xx-xxxx  
 Langford, William D., xxx-xx-xxxx  
 Lewellyn, William E., Jr., xxx-xx-xxxx  
 Lewis, James E., xxx-xx-xxxx  
 McCaffery, Edward J., Jr., xxx-xx-xxxx  
 McCaskill, Jack G., xxx-xx-xxxx  
 Nabors, Robert L., xxx-xx-xxxx  
 Pasqualini, Walter L., xxx-xx-xxxx  
 Petrovich, Joseph, xxx-xx-xxxx  
 Pinette, Gary R., xxx-xx-xxxx  
 Pomeroy, Charles J., xxx-xx-xxxx  
 Reichert, David E., xxx-xx-xxxx  
 Riggs, Jerry W., xxx-xx-xxxx  
 Rizzato, Bruno F., xxx-xx-xxxx  
 Rutledge, Jerald C., xxx-xx-xxxx  
 Sagartz, John W., xxx-xx-xxxx  
 Senter, Richard L., xxx-xx-xxxx  
 Solomonson, Daryl K., xxx-xx-xxxx  
 Spain, Timothy P., xxx-xx-xxxx  
 Stevens, T. J., xxx-xx-xxxx  
 Toten, William L., xxx-xx-xxxx  
 Urlick, George M., xxx-xx-xxxx  
 Weber, William D., xxx-xx-xxxx  
 Williams, Negal F., xxx-xx-xxxx  
 Youngblood, Carl E., xxx-xx-xxxx

*To be second lieutenant*

Allaman, Everett D., Jr., xxx-xx-xxxx  
 Bellino, Vincent C., xxx-xx-xxxx  
 Boothman, James R., xxx-xx-xxxx  
 De Vault, Dean L., xxx-xx-xxxx  
 Griffith, Paul L., xxx-xx-xxxx  
 Hays, Gilbert N., xxx-xx-xxxx  
 Hebert, Joseph P., xxx-xx-xxxx  
 Jones, Ronald V., xxx-xx-xxxx  
 Mauro, Kathleen B., xxx-xx-xxxx  
 Miller, Kathleen Mary, xxx-xx-xxxx  
 Murray, Margaret A., xxx-xx-xxxx  
 Naccarato, Timothy E., xxx-xx-xxxx  
 Phillips, Thomas K., xxx-xx-xxxx  
 Romanik, Bernard J., Jr., xxx-xx-xxxx  
 Shupack, Stephen L., xxx-xx-xxxx  
 Sprowls, John F., Jr., xxx-xx-xxxx  
 Taylor, James W., Jr., xxx-xx-xxxx  
 Tyler, Gary J., xxx-xx-xxxx  
 Wood, Bruce F., xxx-xx-xxxx

The following-named distinguished military students for appointment in the Regular Army of the United States, in the grade of second lieutenant, under provisions of title 10, United States Code, sections 2106, 3283, 3284, 3286, 3287, 3288, and 3290:

Ader, Ernest C., xxx-xx-xxxx  
 Adkins, Samuel L., xxx-xx-xxxx  
 Adrian, James C., xxx-xx-xxxx  
 Alderson, Leslie G., Jr., xxx-xx-xxxx  
 Alequin, Reinaldo, xxx-xx-xxxx  
 Alexander, Joseph P., xxx-xx-xxxx  
 Almero, Daniel A., xxx-xx-xxxx  
 Alvarado, Hector H., xxx-xx-xxxx  
 Anderson, Andrew C., xxx-xx-xxxx  
 Anderson, Terry M., xxx-xx-xxxx  
 Andrews, Paul P., Jr., xxx-xx-xxxx  
 Archer, James E., xxx-xx-xxxx  
 Arledge, Robert C., Jr., xxx-xx-xxxx  
 Arp, Charles D., xxx-xx-xxxx  
 Audi, Anthony J., xxx-xx-xxxx  
 Austin, William C., xxx-xx-xxxx  
 Azbill, William G., xxx-xx-xxxx  
 Bailer, Richard O., xxx-xx-xxxx

Bailey, Bruce E., xxx-xx-xxxx  
 Barlow, Ingram P., Jr., xxx-xx-xxxx  
 Barnett, Philip E., xxx-xx-xxxx  
 Barr, David A., xxx-xx-xxxx  
 Barth, Christopher L., xxx-xx-xxxx  
 Barth, John D., xxx-xx-xxxx  
 Bash, Norman F., xxx-xx-xxxx  
 Battles, Gary D., xxx-xx-xxxx  
 Bates, David E., xxx-xx-xxxx  
 Baylor, Curtis A., xxx-xx-xxxx  
 Belknap, Raymond M., xxx-xx-xxxx  
 Bell, Robert D., Jr., xxx-xx-xxxx  
 Bellman, Robert J., xxx-xx-xxxx  
 Bene, Donald A., xxx-xx-xxxx  
 Benedict, Jonathan H., xxx-xx-xxxx  
 Bennett, Douglas M., xxx-xx-xxxx  
 Bentle, Mark E., xxx-xx-xxxx  
 Berle, Charles A., xxx-xx-xxxx  
 Berry, Jeffrey C., xxx-xx-xxxx  
 Bethea, Thomas M., xxx-xx-xxxx  
 Biggerstaff, William D., xxx-xx-xxxx  
 Bilas, Boris J., II, xxx-xx-xxxx  
 Bishop, Edward D., xxx-xx-xxxx  
 Blanchard, Frank T., Jr., xxx-xx-xxxx  
 Blahnuk, Robert P., xxx-xx-xxxx  
 Blaser, Stephen J., xxx-xx-xxxx  
 Blom, Stephen D., xxx-xx-xxxx  
 Boatwright, George W., xxx-xx-xxxx  
 Boettcher, Dwayne R., xxx-xx-xxxx  
 Boles, Larry D., xxx-xx-xxxx  
 Bowser, Terry A., xxx-xx-xxxx  
 Brady, Thomas M., xxx-xx-xxxx  
 Brand, Joseph J., xxx-xx-xxxx  
 Brawley, Richard D., xxx-xx-xxxx  
 Brinkley, Phillip L., xxx-xx-xxxx  
 Brockett, John J., xxx-xx-xxxx  
 Brown, David C., xxx-xx-xxxx  
 Brown, David M., xxx-xx-xxxx  
 Brown, Walter A., xxx-xx-xxxx  
 Brumbaugh, Kenneth L., xxx-xx-xxxx  
 Bruns, Gary D., xxx-xx-xxxx  
 Bruscatto, Frank E., xxx-xx-xxxx  
 Bryant, Byron D., xxx-xx-xxxx  
 Bultsma, John H., xxx-xx-xxxx  
 Burell, Glenn R., xxx-xx-xxxx  
 Burns, Terrence M., xxx-xx-xxxx  
 Byland, Thomas E., xxx-xx-xxxx  
 Campos, Eduardo J., xxx-xx-xxxx  
 Caplenor, Philip A., xxx-xx-xxxx  
 Capraro, Thomas A., xxx-xx-xxxx  
 Carey, William G., xxx-xx-xxxx  
 Carlson, Lee C., xxx-xx-xxxx  
 Carlton, Jeffrey S., xxx-xx-xxxx  
 Carmody, Francis X., xxx-xx-xxxx  
 Carpenter, Gregory T., xxx-xx-xxxx  
 Carroll, John L., xxx-xx-xxxx  
 Carter, Ken W., xxx-xx-xxxx  
 Cary, John N., xxx-xx-xxxx  
 Cascio, Thomas J., xxx-xx-xxxx  
 Cassil, Danny R., xxx-xx-xxxx  
 Ceresini, Edward P., xxx-xx-xxxx  
 Chachulski, Joseph D., xxx-xx-xxxx  
 Chalkey, Walter L., xxx-xx-xxxx  
 Chandler, Gerald L., xxx-xx-xxxx  
 Chapel, William J., xxx-xx-xxxx  
 Chappell, John T., xxx-xx-xxxx  
 Charlesworth, Dennis W., xxx-xx-xxxx  
 Chriske, Gary P., xxx-xx-xxxx  
 Christen, Joe L., xxx-xx-xxxx  
 Christopher, Harold J., xxx-xx-xxxx  
 Cipriani, Dominic G., xxx-xx-xxxx  
 Cisneros, Armando A., xxx-xx-xxxx  
 Clark, Forrest G., xxx-xx-xxxx  
 Clay, Cary S., xxx-xx-xxxx  
 Close, Kenneth R., xxx-xx-xxxx  
 Cofer, Jonathan H., xxx-xx-xxxx  
 Coleman, Aaron R., xxx-xx-xxxx  
 Coleman, Nelson W., xxx-xx-xxxx  
 Coleman, Ronald R., xxx-xx-xxxx  
 Connor, John P., xxx-xx-xxxx  
 Cook, David L., xxx-xx-xxxx  
 Costello, Thomas J., xxx-xx-xxxx  
 Coven, David R., xxx-xx-xxxx  
 Cowan, David M., xxx-xx-xxxx  
 Crane, David M., xxx-xx-xxxx  
 Critz, James W., xxx-xx-xxxx  
 Crook, Robert L., xxx-xx-xxxx  
 Crownover, Jimmy G., xxx-xx-xxxx  
 Culpepper, Michael H., xxx-xx-xxxx  
 Cunningham, Thomas R., xxx-xx-xxxx

Current, Thomas W., xxx-xx-xxxx  
 Curry, Leon Jr., xxx-xx-xxxx  
 Cygrymus, Robert M., xxx-xx-xxxx  
 Dalton, Brian W., xxx-xx-xxxx  
 D Amico, Phillip J., xxx-xx-xxxx  
 Dambrosio, Alfred, xxx-xx-xxxx  
 Damron, Danny R., xxx-xx-xxxx  
 Daniel, William E., III, xxx-xx-xxxx  
 Dart, Clifford B., xxx-xx-xxxx  
 Daugherty, Wayne E., xxx-xx-xxxx  
 Davis, Lawrence E., xxx-xx-xxxx  
 Dawkins, Peter R., xxx-xx-xxxx  
 De Baca Frank A., xxx-xx-xxxx  
 De Baun, Robert B., xxx-xx-xxxx  
 Deery, Kevin J., xxx-xx-xxxx  
 Deickman, John P., xxx-xx-xxxx  
 Demers, Richard R., xxx-xx-xxxx  
 Dempster, Robert S., xxx-xx-xxxx  
 Destefano, Louis T., xxx-xx-xxxx  
 Dillon, Francis H., III, xxx-xx-xxxx  
 Dinella, Harry D., xxx-xx-xxxx  
 Dinsick, Robert G., xxx-xx-xxxx  
 Dittmer, Robert E., II, xxx-xx-xxxx  
 Dodson, Ricky L., xxx-xx-xxxx  
 Doyle, William A., Jr., xxx-xx-xxxx  
 Drew, Thomas E., xxx-xx-xxxx  
 Drotos, Louis J., xxx-xx-xxxx  
 Duckworth, Rocky L., xxx-xx-xxxx  
 Dufoe, William S., xxx-xx-xxxx  
 Duhaime, Paul F., xxx-xx-xxxx  
 Dunn, Rodney K., xxx-xx-xxxx  
 Dvorsky, Paul A., xxx-xx-xxxx  
 Earnest, Alonzo B., xxx-xx-xxxx  
 Easter, James H., Jr., xxx-xx-xxxx  
 Eddleman, William R., xxx-xx-xxxx  
 Eley, Adrian S., xxx-xx-xxxx  
 Engel, Richard A., xxx-xx-xxxx  
 England, William M., xxx-xx-xxxx  
 English, Stephen L., xxx-xx-xxxx  
 Ervin, Darrel, xxx-xx-xxxx  
 Esposito, Rocco, Jr., xxx-xx-xxxx  
 Estep, Bobby D., xxx-xx-xxxx  
 Estes, Glenn H., Jr., xxx-xx-xxxx  
 Evenden, James J., xxx-xx-xxxx  
 Faircloth, William R., xxx-xx-xxxx  
 Ferguson, Otis B., Jr., xxx-xx-xxxx  
 Ferguson, Victor L., xxx-xx-xxxx  
 Field, Robert M., xxx-xx-xxxx  
 Fields, William E., xxx-xx-xxxx  
 Fisher, Edward D., xxx-xx-xxxx  
 Flatau, Larry S., xxx-xx-xxxx  
 France, Edward W., xxx-xx-xxxx  
 Frank, Donald F., Jr., xxx-xx-xxxx  
 Frantz, Thomas R., xxx-xx-xxxx  
 French, Charles T., xxx-xx-xxxx  
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The following-named scholarship students for appointment in the Regular Army of the United States, in the grade of second lieutenant, under provisions of title 10, United States Code, sections 2107, 3283, 3284, 3286, 3287, 3288, and 3290:

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 Abney, Donald E., xxx-xx-xxxx  
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 Archer, Bruce F., xxx-xx-xxxx  
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 Thomassen, Thom S., xxx-xx-xxxx  
 Tierney, William V., Jr., xxx-xx-xxxx  
 Tillman, Christopher P., xxx-xx-xxxx  
 Tilton, Don D., xxx-xx-xxxx  
 Timboe Richard E., xxx-xx-xxxx  
 Timmerberg, Paul D., xxx-xx-xxxx  
 Toler, Michael M., xxx-xx-xxxx  
 Topp, Peter A., xxx-xx-xxxx  
 Travis, Brian L., xxx-xx-xxxx  
 Troy, Leo J., Jr., xxx-xx-xxxx  
 True, Gregory R., xxx-xx-xxxx  
 Tucker, Jeffrey T., xxx-xx-xxxx  
 Tulkki, Burton W., xxx-xx-xxxx  
 Turek, Frank R., xxx-xx-xxxx  
 Turner, Lawrence K., xxx-xx-xxxx  
 Ueda, Roger M., xxx-xx-xxxx  
 Vaccaro, John A., xxx-xx-xxxx  
 Vaeni, Arthur S., xxx-xx-xxxx  
 Van Antwerp, Robert L., xxx-xx-xxxx  
 Van Dam, Bruce E., xxx-xx-xxxx  
 Van Vurst, Frederick, xxx-xx-xxxx  
 Veeder, James A. R., xxx-xx-xxxx  
 Vinson, William N., xxx-xx-xxxx  
 Vogel, Kenneth L., xxx-xx-xxxx  
 Voland, Howard M., xxx-xx-xxxx  
 Vross, Edward W., Jr., xxx-xx-xxxx  
 Vuksich, Paul M., xxx-xx-xxxx  
 Wade, Dean E., xxx-xx-xxxx  
 Wagner, Dennis A., III, xxx-xx-xxxx  
 Wagnon, Russell C., xxx-xx-xxxx  
 Walborn, Gary S., xxx-xx-xxxx  
 Waldbueser, William D., xxx-xx-xxxx  
 Walker, James D., xxx-xx-xxxx  
 Walker, Jerry L., xxx-xx-xxxx  
 Walker, Kenneth T., xxx-xx-xxxx  
 Waller, Thomas G., Jr., xxx-xx-xxxx  
 Walsh, William E., xxx-xx-xxxx  
 Walter, George R., Jr., xxx-xx-xxxx  
 Walter, James V., xxx-xx-xxxx  
 Walton, Thomas K., xxx-xx-xxxx  
 Wampler, Richard L., xxx-xx-xxxx  
 Wank, Robert H., xxx-xx-xxxx  
 Ward, Ray E., xxx-xx-xxxx  
 Warner, Charles O., III, xxx-xx-xxxx  
 Waters, Tommy W., xxx-xx-xxxx  
 Webb, George S., xxx-xx-xxxx  
 Webb, William L., III, xxx-xx-xxxx  
 Weber, Alfred J., Jr., xxx-xx-xxxx  
 Weekley John C., xxx-xx-xxxx  
 Welch, William G., xxx-xx-xxxx

West, Sterling G., xxx-xx-xxxx  
 Westphal, James L., xxx-xx-xxxx  
 Wheelock, John G., IV, xxx-xx-xxxx  
 Whitaker, Michael J., xxx-xx-xxxx  
 Whitley, Ted D., xxx-xx-xxxx  
 Whitney, Floyd G., III, xxx-xx-xxxx  
 Wicker, David E., xxx-xx-xxxx  
 Wightman, William E., xxx-xx-xxxx  
 Wildes, David G., xxx-xx-xxxx  
 Wildrick, George C., xxx-xx-xxxx  
 Wilhelmy, Geoffrey J., xxx-xx-xxxx  
 Willey, Barry E., xxx-xx-xxxx  
 Williams, Allen J., xxx-xx-xxxx  
 Williams, Charles A., xxx-xx-xxxx  
 Williams, Edgar B., Jr., xxx-xx-xxxx  
 Williams, Garry A., xxx-xx-xxxx  
 Williams, Richard J., xxx-xx-xxxx  
 Willis, Clifford K., xxx-xx-xxxx  
 Wilson, Albert R., xxx-xx-xxxx  
 Wilson, Frederick G., xxx-xx-xxxx  
 Wilson, Howard C., xxx-xx-xxxx  
 Wilson, Thomas J., Jr., xxx-xx-xxxx  
 Wilson, Tod J., xxx-xx-xxxx  
 Wilson, William J., xxx-xx-xxxx  
 Wines, Robert C., xxx-xx-xxxx  
 Wise, Douglas H., xxx-xx-xxxx  
 Wishcamper, Joe E., xxx-xx-xxxx  
 Wismann, Joseph B., xxx-xx-xxxx  
 Wittman, Robert J., xxx-xx-xxxx  
 Wohleen, David B., xxx-xx-xxxx  
 Wojdakowski, Walter, xxx-xx-xxxx  
 Wold, James R., xxx-xx-xxxx  
 Wong, Gregory K. M., xxx-xx-xxxx  
 Wood, John R., xxx-xx-xxxx  
 Woodside, Robert E., xxx-xx-xxxx  
 Woznek, Keith W., xxx-xx-xxxx  
 Wyatt, Robert L., xxx-xx-xxxx  
 Wylie, James R., xxx-xx-xxxx  
 Yestrumsky, Michael A., xxx-xx-xxxx  
 Zimmerman, Charles A., xxx-xx-xxxx  
 Zmolek, Gerry R., xxx-xx-xxxx  
 Zurian, Steven A., xxx-xx-xxxx

## IN THE ARMY

The following-named persons for appointment in the Regular Army of the United States in the grades specified, under the provisions of title 10, United States Code, sections 3283 through 3294 and 3311:

## To be major

Bogard, Bobby E., xxx-xx-xxxx  
 Hamberger, Michael J., xxx-xx-xxxx

## To be captain

Alderfer, Gill R., xxx-xx-xxxx  
 Baker, John W., xxx-xx-xxxx  
 Bates, Robert E., xxx-xx-xxxx  
 Bowen, Gail O., xxx-xx-xxxx  
 Brosch, Gary E., xxx-xx-xxxx  
 Bryant, Clyde M., Jr., xxx-xx-xxxx  
 Carroll, John J., xxx-xx-xxxx  
 Ferguson, Lorenzo, xxx-xx-xxxx  
 Huttner, Robert F., xxx-xx-xxxx  
 Marshall, John W., xxx-xx-xxxx  
 Nettles, Edward L., Jr., xxx-xx-xxxx  
 Owen, Felix E., xxx-xx-xxxx  
 Peace, Theopolis, xxx-xx-xxxx  
 Prowant, Delmar L., xxx-xx-xxxx  
 Ray, Ronald E., xxx-xx-xxxx  
 Reed, Lowell K., xxx-xx-xxxx  
 Reich, Hans W., xxx-xx-xxxx  
 Stamper, Walton B., xxx-xx-xxxx  
 Williams, Gregory T., xxx-xx-xxxx  
 Willis, Mary C., xxx-xx-xxxx  
 Wilson, Charles C., xxx-xx-xxxx

## To be first lieutenant

Abrams, John N., xxx-xx-xxxx  
 Adams, Robert L., xxx-xx-xxxx  
 Allard, John W., xxx-xx-xxxx  
 Allen, Gerald W., xxx-xx-xxxx  
 Amiot, Robert J., xxx-xx-xxxx  
 Armstrong, Joe C., xxx-xx-xxxx  
 Bailey, Charles L., xxx-xx-xxxx  
 Baker, Richard I., xxx-xx-xxxx  
 Beauchamp, Charles E., Jr., xxx-xx-xxxx  
 Brockington, Anthony L., xxx-xx-xxxx  
 Bynum, Welfert L., xxx-xx-xxxx  
 Cole, Clyde N., xxx-xx-xxxx  
 Cox, Everett F., xxx-xx-xxxx  
 Davis, Alfred J., xxx-xx-xxxx

Davis, Guy W., xxx-xx-xxxx  
 Debree, William P., xxx-xx-xxxx  
 Demartini, John D., xxx-xx-xxxx  
 Duda, Dennis E., xxx-xx-xxxx  
 Deuster, Kathryn P., xxx-xx-xxxx  
 Elmore, James D., xxx-xx-xxxx  
 Elsey, David P., II, xxx-xx-xxxx  
 Enloe, Edmond J., Jr., xxx-xx-xxxx  
 Fick, Daniel J., xxx-xx-xxxx  
 Finley, Gibson R., Jr., xxx-xx-xxxx  
 Fitzsimmons, Richard H., xxx-xx-xxxx  
 Ford, Robert L., xxx-xx-xxxx  
 Franklin, Cleo R., xxx-xx-xxxx  
 Freeman, John E., xxx-xx-xxxx  
 Gaub, Steven D., xxx-xx-xxxx  
 Gerard, William F., Jr., xxx-xx-xxxx  
 Graham, Kent N., xxx-xx-xxxx  
 Harms, Robert R., xxx-xx-xxxx  
 Harrington, Peter B., xxx-xx-xxxx  
 Harris, Robert D., xxx-xx-xxxx  
 Hayes, Lynn H., xxx-xx-xxxx  
 Heath, George E., xxx-xx-xxxx  
 Henderson, Raymond W., xxx-xx-xxxx  
 Hoffman, Lawrence W., xxx-xx-xxxx  
 Hollar, Reinhardt, xxx-xx-xxxx  
 Jackson, Jimmy D., xxx-xx-xxxx  
 Jagenow, John L., xxx-xx-xxxx  
 Jenkinson, Earl H., xxx-xx-xxxx  
 Kelley, Charles E., xxx-xx-xxxx  
 Klaput, Edward N., xxx-xx-xxxx  
 Lagrange, Gary L., xxx-xx-xxxx  
 La Hue, Richard G., xxx-xx-xxxx  
 Lefebvre, Normand E., xxx-xx-xxxx  
 Long, Donald W., xxx-xx-xxxx  
 Markham, Robert E., II, xxx-xx-xxxx  
 Marsteller, Clyde C., xxx-xx-xxxx  
 Marty, Larry J., xxx-xx-xxxx  
 McAllister, John M., xxx-xx-xxxx  
 McNulty, John J., III, xxx-xx-xxxx  
 Miesner, William H., Jr., xxx-xx-xxxx  
 Monahan, Carole, xxx-xx-xxxx  
 Moore, Clayton H., III, xxx-xx-xxxx  
 Moore, Jerry N., xxx-xx-xxxx  
 Nance, Steven S., xxx-xx-xxxx  
 Parratt, Stephen W., xxx-xx-xxxx  
 Peterson, Raymond W., xxx-xx-xxxx  
 Phillips, James D., xxx-xx-xxxx  
 Pickar, Jerry F., xxx-xx-xxxx  
 Place, Paul C., xxx-xx-xxxx  
 Price, Kenneth L., xxx-xx-xxxx  
 Priest, William P., xxx-xx-xxxx  
 Rackstraw, James T., xxx-xx-xxxx  
 Sambolich, Paul, xxx-xx-xxxx  
 Scoggins, James E., xxx-xx-xxxx  
 Smith, Terry L., xxx-xx-xxxx  
 Stanley, Gary P., xxx-xx-xxxx  
 Stone, Carl E., xxx-xx-xxxx  
 Sullivan, Michael R., xxx-xx-xxxx  
 Szabo, Bela A., III, xxx-xx-xxxx  
 Taylor, William L., xxx-xx-xxxx  
 Tucker, Gary L., xxx-xx-xxxx  
 Wagner, Nelson R., xxx-xx-xxxx  
 Waller, Charles R., xxx-xx-xxxx  
 Webster, Robert L., xxx-xx-xxxx  
 Whitsell, Raymond B., xxx-xx-xxxx  
 Woods, Gerry W., xxx-xx-xxxx  
 Yamamoto, Richard Y., xxx-xx-xxxx

## To be second lieutenant

Ankley, William J., xxx-xx-xxxx  
 Aylor, Cortez C., xxx-xx-xxxx  
 Barson, George K., III, xxx-xx-xxxx  
 Cadwallader, Ralph E., xxx-xx-xxxx  
 Clark, James E., xxx-xx-xxxx  
 Conk, Michael J., xxx-xx-xxxx  
 Elliott, William W., xxx-xx-xxxx  
 Engelhardt, Thomas R., xxx-xx-xxxx  
 Faulkner, Sanford W., xxx-xx-xxxx  
 Gay, William K., xxx-xx-xxxx  
 Guthrie, Michael C., xxx-xx-xxxx  
 Hill, Frederick W., xxx-xx-xxxx  
 Ingram, Robert L., xxx-xx-xxxx  
 Johnson, Donald E., xxx-xx-xxxx  
 Kunkle, Donald W., xxx-xx-xxxx  
 Maher, John J., III, xxx-xx-xxxx  
 Mitchiner, Dwane R., xxx-xx-xxxx  
 Olson, Walter L., xxx-xx-xxxx  
 Palmer, Ragna, xxx-xx-xxxx  
 Toth, Joseph K., xxx-xx-xxxx  
 Trez, Joseph W., xxx-xx-xxxx  
 Wilkinson, Gene C., xxx-xx-xxxx  
 Zetti, James H., xxx-xx-xxxx



## IN THE NAVY

The following named lieutenant commanders of the line and staff corps of the Navy for temporary promotion to the grade of commander pursuant to title 10, United States Code, section 5787, while serving in, or ordered to billets for which the grade of commander is authorized and for unrestricted appointment to the grade of commander when eligible pursuant to law and regulation

subject to qualification therefor as provided by law:

	LINE
Akers, Max N.	Erner, Eugene J.
Fuller, Robert H.	Hoel, Jack I.
Ivey, Clarence G., Jr.	Jackson, Morse R.
Klinedist, Paul R., Jr.	Knapp, Norman E., Jr.
Konkel, Harry W.	Newton, George B., Jr.
Peters, John D.	Stubb, George R.

## MEDICAL CORPS

Bercier, Charles H., Jr.

## SUPPLY CORPS

Cunningham, Philip T. Desmarais, Norman D.  
Haver, David J. Tack, Curtis A.

## CIVIL ENGINEER CORPS

Wood, William L.

## EXTENSIONS OF REMARKS

## BETTS RECORD EARNS "A" MARKS

## HON. DELBERT L. LATTA

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

Monday, January 31, 1972

Mr. LATTA. Mr. Speaker, soon after our good friend and colleague, the Honorable JACKSON BETTS of Ohio announced that he planned to retire from Congress, his hometown newspaper, the Republican Courier, ran an editorial concerning him which I am certain everyone in this Chamber would like to read. The person who wrote this editorial truly knows JACK BETTS and I wish to commend him for its excellence. The editorial follows:

## BETTS RECORD EARNS "A" MARKS

Rep. Jackson E. Betts has made official his decision not to seek re-election to Congress. The Findlay legislator thus plans to bring to close a record of public elective service which is highly distinguished.

He is presently completing his 11th term in the U.S. House of Representatives, where he has risen to a position of great influence and unusual prominence. He is currently the second ranking Republican on the powerful House Ways and Means committee, regarded as one of the two or three most important committees in all Congress.

Betts' assignment to that select committee was solid evidence of the esteem in which he has regularly been held by his colleagues, and of the widespread respect throughout Washington for his ability and judgment.

Perhaps even a more significant indication of the prestigious character of Betts was his assignment a few years ago as the senior member of the House of Representatives committee on Standards of Official Conduct. His own exemplary sense of ethics and public trust was inevitably a major criterion in his selection to this post.

A major share of Betts' adult life has been dedicated to public service. He launched his political career as Hancock County prosecutor in 1933. He later served as the county's representative to the Ohio House of Representatives, reaching that chamber's highest office of Speaker of the House in 1945.

He was successful in an uphill district-wide battle for the Republican nomination for Congress in 1950, winning such a substantial majority in his home county of Hancock, that he overtook his opponents who carried every other county in the district in that initial balloting. He has since consistently received district-wide majorities and has been unopposed in several general elections.

Highly respected, even by members of the opposition party, he has enjoyed the esteem and admiration of a substantial majority of his constituents throughout the year.

Congressman Betts' history of political service is exemplary. Scrupulously honest and sincere, he has never attempted to build influence for his own benefit or glory. Rather,

he has used his considerable prestige and political power to serve what he considers the best interests of the United States.

Perhaps locally, he will be remembered particularly for his ability to maintain a genuinely modest, unassuming manner. Though he has met with Presidents, dined with diplomats, and walked with illustrious figures of modern history, he is still the calm, friendly representative of Ohio's 8th Congressional district, which he has served so well.

His amiable, gracious manner will make it easy for Jackson E. Betts to retire to Findlay and practice law. But unpretentious as he is, Congressman Betts is leaving behind him a solid record of public service which forever distinguishes him here and abroad with the well earned title, "Statesman."

## SUPPORT FOR THE PRESIDENT

## HON. J. CALEB BOGGS

OF DELAWARE

IN THE SENATE OF THE UNITED STATES

Monday, January 31, 1972

Mr. BOGGS. Mr. President, the President of the United States recently revealed the far-reaching offers that have been made in the effort to end the war in Vietnam. I, for one, believe it is a most logical and honorable proposal, one that no reasonable nation could reject. It is encouragement to note that many people are in agreement with it.

The House of Representatives of the Delaware General Assembly last week adopted a resolution of support for the President's initiative. I ask that this resolution, offered by Representative Thomas L. Little, be printed at the end of my remarks.

Also, this morning I was interested to read in the Washington Post a column by Mr. William Raspberry. Mr. Raspberry, an astute observer of the American scene, offers some thoughts on the President's proposal. He is opposed to our involvement in Vietnam, but he has an interesting commentary about some forms of opposition. His column says, in part:

But it is sick to work at delivering your own comeuppance, and that is what some of those who oppose the war and Richard Nixon's handling of it are proposing.

Mr. President, I also ask that Mr. Raspberry's thoughtful column be printed.

There being no objection, the resolution and the article were ordered to be printed in the RECORD, as follows:

## HOUSE RESOLUTION No. 75

Congratulating the President of the United States on his efforts for world peace

Whereas, the President of the United States

made public his long standing offer of peace to our enemy in North Vietnam; and

Whereas, these proposals include—a total cease fire throughout all of Indochina, the immediate release of all prisoners of war, the total withdrawal of all American and allied forces within six months of acceptance of this proposal by Hanoi, and the resignation of the political regime of South Vietnam to be followed by free elections including the National Liberation Front; and

Whereas, these proposals have been offered secretly in good faith for many months in direct private negotiations between the United States and Hanoi; Now therefore:

Be it resolved that the House of Representatives of the State of Delaware congratulate the President for his efforts and sincerely encourage his continued efforts to bring world peace and the safe return of all our American fighting men from North and South Vietnam as soon as possible.

Be it further resolved that the text of this resolution be spread upon the House Journal and that the original be forwarded to President Richard M. Nixon, with copies to U.S. Senators J. Caleb Boggs and William V. Roth, Jr., Congressman Pierre S. DuPont, IV, to the leadership of the North Vietnam government in Hanoi, and to the members of the North Vietnam negotiating team in Paris.

[From the Washington Post, Jan. 31, 1972]

## A SICK REACTION TO NIXON

(By William Raspberry)

Two of the three primary reactions to the President's recent revelation of his secret Vietnam negotiations are fairly easy to talk about. They are more or less clearcut and have more or less articulate spokesmen.

First is the reaction of triumph (or chagrin, depending on your point of view) that for the past several months Mr. Nixon was doing precisely what his most respected critics were accusing him of refusing to do: Offering American withdrawal—even by a "certain date"—in exchange for the return of American POWs.

The President's announcement embarrassed those (particular the Democratic presidential hopefuls among them) who had been demanding just that sort of proposition.

It vindicated those whose faith was that the President really did want to extricate his country from the war and was sparing no effort to do so. In either case, it must be counted a political plus for Mr. Nixon for the time being, although it may blow up in his face between now and November.

The second reaction is that the President's eight-point proposal, whether sincerely offered or not, cannot work—for the simple reason that Hanoi can gain more heavily by not agreeing to anything.

America clearly is getting out of Vietnam without the benefit of negotiation, the argument goes. In light of that irrevocable trend, Hanoi could only lose by entering into serious negotiation. The smart thing from Hanoi's point of view would be to avoid anything drastic—either at the bargaining table or on the battlefield—and simply permit the continuing withdrawal of the American forces.

The first two reactions are essentially prac-