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HEARINGS
BEFORE THE
SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
NINETIETH CONGRESS

SECOND SESSION

ON

H.R. 18188

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT
OF TRANSPORTATION FOR THE FISCAL YEAR ENDING
JUNE 30, 1969, AND FOR OTHER PURPOSES

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DEPARTMENT OF TRANSPORTATION APPROPRIATIONS
FOR FISCAL YEAR 1969

HEARINGS
BEFORE THE
SUBCOMMITTEE OF THE

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS

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(II)



DEPARTMENT OF TRANSPORTATION APPROPRIATIONS FOR FISCAL YEAR 1969

MONDAY, JULY 15, 1968

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, D.C.

The subcommittee met at 1:30 p.m., in room 1224, New Senate Office Building, Hon. John Stennis (chairman) presiding.
Present: Senators Stennis, Pastore, Cotton, and Hruska.

DEPARTMENT OF TRANSPORTATION
URBAN MASS TRANSPORTATION ADMINISTRATION

STATEMENT OF ALAN S. BOYD, SECRETARY,
ACCOMPANIED BY:

- JOHN E. ROBSON, UNDER SECRETARY AND ACTING ADMINISTRATOR;
- PAUL L. SITTON, DEPUTY UNDER SECRETARY;
- ALAN L. DEAN, ASSISTANT SECRETARY FOR ADMINISTRATION;
- WILLIAM B. HURD, DEPUTY ADMINISTRATOR;
- ROBERT G. PRIESTEMON, DIRECTOR OF BUDGET.)

SUBCOMMITTEE PROCEDURE

Senator STENNIS. The subcommittee will come to order. Last week Secretary Boyd came to see me about the budget request for the Urban Mass Transportation program. This item had been left out of the House bill and was not included in the budget submitted to us because of the transfer of this program from HUD to the Department of Transportation on July 1, by Presidential order. We had briefly discussed Urban Mass Transportation when Secretary Boyd appeared before the subcommittee in the middle of June. But at that time it was not clear which subcommittee would handle this year's appropriation request. When it became apparent that it was going to fall on our subcommittee, I decided that we ought to have a hearing and make a record on Urban Transportation. The House has already disposed of the transportation bill for this year, and we had except for this item. All programs should have the opportunity to be heard and to have someone testify on their behalf.

We called this hearing especially for that purpose. Gentlemen, since the hearing was set there has been a call for a full committee meeting to the mark-up the Public Works bill. Plus there will be on vote on the

Senate floor for the Higher Education bill. I hope these other matters will not interfere with our meeting.

LETTER FROM SECRETARY BOYD

I would like to begin by inserting in the record a letter from Secretary Boyd dated July 9, 1968, which brought this Urban Mass Transportation matter to my attention.

(The letter follows:)

THE SECRETARY OF TRANSPORTATION,
Washington, D.C., July 9, 1968.

HON. JOHN STENNIS,
*Chairman, Subcommittee on Transportation,
Committee on Appropriations, U.S. Senate, Washington, D.C.*

DEAR MR. CHAIRMAN: I want to thank you for taking time from your heavy schedule yesterday to talk with Under Secretary John Robson and me about the pending budget request for the Urban Mass Transportation program which was transferred to our Department from the Department of Housing and Urban Development on July 1.

My staff is providing today to your committee staff assistant, Mr. Witeck, additional budget material which I believe you and other members of your Appropriations Subcommittee will find useful.

We regret that this item has come up so late in the Committee's consideration of the DOT bill but the timing of the Reorganization Plan simply did not fit well with the schedule for handling our appropriations bill.

I would like here briefly to reiterate the main reasons why I urge your Committee to include the \$230 million Urban Mass Transportation budget request for 1970 in the pending Department of Transportation Appropriation Act, H.R. 18188.

First, we believe the regular 1969 DOT appropriations bill should cover all the presently known needs of the Department. Because the Urban Transportation program became our responsibility on July 1, it is appropriate that the necessary appropriations for the program be included in our appropriations bill. The program, first authorized in 1961 and substantially expanded in 1964, has received consistent support from the Congress both in terms of authorizations and appropriations. It is important, therefore, that the Transportation Subcommittees of the Appropriations Committees consider including funds for the Urban Mass Transportation program in the regular 1969 DOT Appropriation bill. Should this prove infeasible, we will be obliged to seek a supplemental appropriation later in the session. (The pending request, it should be noted, will *not* affect budget authority and expenditure totals for 1969.)

Second, there is great interest in and a pressing need for the Urban Transportation program throughout the country. Congestion and crowding of urban transportation facilities are major problems in all metropolitan areas in every State. There is broad agreement among all those concerned with the urban transportation problem that the only real solution lies in balanced systems of highways and mass transportation facilities. The capital costs of these facilities will be substantial, well beyond the financial capability of our hard-pressed cities. Moreover, experience shows conclusively that these capital costs cannot be fully recovered from the "fare box." A measure of Federal assistance is essential. The President's budget request of \$230 million for 1970 was made in recognition of this need and in full consideration of all the other important demands on the Federal budget.

Third, we believe it is essential to preserve the one-year advance funding pattern which was established for this and other long-lead time programs several years back. Planning, designing, and arranging local financing for major public works projects is difficult and time-consuming. It is vital to the success of many of these efforts that there be assurances that planned-upon Federal assistance will be forthcoming and not be contingent upon the vicissitudes of the annual budget process. Financing the local share of projects often involves major bond issues which in many cases are subject to referendum. The financial institutions that underwrite these bonds assign great weight to anticipated Federal support in determining interest rates and other terms of the bonding arrangements.

Fourth, nearly \$200 million in capital grant applications are presently in hand, compared with the 1969 funded availability of some \$160 million. We can expect at least another \$100 million in applications during the current fiscal year and perhaps double that in 1970. Thus, even with the full \$230 million requested now for 1970, only the highest priority projects can be aided.

For all these reasons, I respectfully request that your Committee give the President's budget estimate of \$230 million for this program most serious consideration. I realize and regret that the request is not timed well, but I firmly believe that favorable action by your Committee will be a major step towards solving one of the Nation's most urgent transportation problems.

Sincerely,

ALAN S. BOYD.

REORGANIZATION PLAN NO. 2, 1968; TRANSFERS PROGRAM

Senator STENNIS. The Chair also would like to insert in the record a message from the President of the United States. The message refers to Reorganization Plan No. 2, 1968, for transportation wherein the President transferred from HUD, as I have said, to the Department of Transportation this Urban Transportation program under consideration.

(The document follows:)

[H. Doc. No. 262, 90th Cong., second sess.]

REORGANIZATION PLAN NO. 2, 1968, FOR TRANSPORTATION

To the Congress of the United States:

As long as he has lived in cities, man has struggled with the problem of urban transportation. But:

- Never before have these problems affected so many of our citizens.
- Never before has transportation been so important to the development of our urban centers.
- Never before have residents of urban areas faced a clearer choice concerning urban transportation—shall it dominate and restrict enjoyment of all the values of urban living, or shall it be shaped to bring convenience and efficiency to our citizens in urban areas.

How America and its cities solve the transportation problem depends largely on our two newest Federal Departments—the Department of Transportation and the Department of Housing and Urban Development:

- The Department of Housing and Urban Development is responsible for the character of all urban development.
- The Department of Transportation is concerned specifically with all the modes of transportation and their efficient interrelationship.

At present, responsibility for program assistance for urban highways and urban airports, and urban mass transportation is divided between the Department of Transportation and the Department of Housing and Urban Development.

As a result:

- Federal coordination of transportation systems assistance is more difficult than it need be.
- Communities which have measured their own needs and developed comprehensive transportation proposals must deal with at least two federal agencies to carry out their programs.

To combine efficiently the facilities and services necessary for our urban centers and to improve transportation within our cities, State and local government agencies should be able to look to a single federal agency for program assistance and support. The large future cost of transportation facilities and services to the Federal Government, to State and local governments, and to the transportation industry makes side investments and efficient transportation systems essential.

An urban transportation system must:

- combine a basic system of efficient, responsive mass transit with all other forms and systems of urban, regional, and inter-city transportation;
- conform to and support balanced urban development.

In this, my second reorganization plan of 1968, I ask the Congress to transfer urban mass transportation programs to the Secretary of Transportation and to establish an Urban Mass Transportation Administration within the Department of Transportation to strengthen the organizational capacity of the Federal Government to achieve these objectives.

The plan transfers to and unifies in a new Urban Mass Transportation Administration in the Department of Transportation those functions which involve urban mass transportation project assistance and related research and development activities. Because urban research and planning and transportation research and planning are closely related, however, the plan provides that the Department of Housing and Urban Development perform an important role in connection with transportation research and planning insofar as they have significant impact on urban development.

We expect the Department of Transportation to provide leadership in transportation policy and assistance. The Department of Housing and Urban Development will provide leadership in comprehensive planning at the local level that includes transportation planning and relates it to broader urban development objectives.

The transfer of urban mass transportation programs will not diminish the overall responsibilities of the Department of Housing and Urban Development with respect to our cities. Rather, adequate authority is reserved to that Department to enable it to join with the Department of Transportation to assure that urban transportation develops as an integral component of the broader development of growing urban areas.

The new Urban Mass Transportation Administration in the Department of Transportation, working with other elements of the Department, will consolidate and focus our efforts to develop and employ the most modern transportation technology in the solution of the transportation problems of our cities.

The reorganization plan provides for an Administrator at the head of the Administration who would be appointed by the President, by and with the advice and consent of the Senate. The Administrator would report directly to the Secretary of Transportation and take his place in the Department with the heads of the Federal Aviation Administration, Federal Highway Administration, Federal Railroad Administration and the Coast Guard.

I have found, after investigation, that each reorganization included in the reorganization plan transmitted herewith is necessary to accomplish one or more of the purposes set forth in section 901 (a) of title 5 of the United States Code.

I have also found that it is necessary to include in the accompanying plan, by reason of these reorganizations, provisions for the appointment and compensation of the new officer specified in section 3(b) of the plan. The rate of compensation fixed for this officer is comparable to those fixed for officers in the Executive Branch of the Government having similar responsibilities.

The reorganizations included in this plan will provide more effective management of transportation programs. It is not feasible to itemize the reduction in expenditures which the plan will achieve, but I have no doubt that this reorganization will preserve and strengthen overall comprehensive planning for developing urban areas while simultaneously insuring more efficient transportation systems for our cities than would otherwise have occurred.

I strongly urge that the Congress allow the reorganization plan to become effective.

LYNDON B. JOHNSON.

THE WHITE HOUSE, February 26, 1968.

REORGANIZATION PLAN NO. 2 OF 1968

(Prepared by the President and transmitted to the Senate and the House of Representatives in Congress assembled, February 26, 1968, pursuant to the provisions of chapter 9 of title 5 of the United States Code)

URBAN MASS TRANSPORTATION

SECTION 1. TRANSFER OF FUNCTIONS.—(a) There are hereby transferred to the Secretary of Transportation:

(1) The functions of the Secretary of Housing and Urban Development and the Department of Housing and Urban Development under the Urban Mass Trans-

portation Act of 1964 (78 Stat. 302; 49 U.S.C. 1601-1611), except that there is reserved to the Secretary of Housing and Urban Development (i) the authority to make grants for or undertake such projects or activities under sections 6(a), 9, and 11 of that Act (49 U.S.C. 1605(a); 1607a; 1607c) as primarily concern the relationship of urban transportation systems to the comprehensively planned development of urban areas, or the role of transportation planning in overall urban planning, and (ii) so much of the functions under sections 3, 4, and 5, of the Act (49 U.S.C. 1602-1604) as will enable the Secretary of Housing and Urban Development (A) to advise and assist the Secretary of Transportation in making findings and determinations under clause (1) of section 3(c), the first sentence of section 4(a), and clause (1) of section 5 of the Act, and (B) to establish jointly with the Secretary of Transportation the criteria referred to in the first sentence of section 4(a) of the Act.

(2) Other functions of the Secretary of Housing and Urban Development, and functions of the Department of Housing and Urban Development or of any agency or officer thereof, all to the extent that they are incidental to or necessary for the performance of the functions transferred by section 1(a) (1) of this reorganization plan, including, to such extent, the functions of the Secretary of Housing and Urban Development and the Department of Housing and Urban Development under (i) title II of the Housing Amendments of 1955 (69 Stat. 642; 42 U.S.C. 1491-1497), insofar as functions thereunder involve assistance specifically authorized for mass transportation facilities or equipment, and (ii) title IV of the Housing and Urban Development Act of 1965 (79 Stat. 485; 42 U.S.C. 3071-3074).

(3) The functions of the Department of Housing and Urban Development under section 3(b) of the Act of November 6, 1966 (P.L. 89-774; 80 Stat. 1352; 40 U.S.C. 672(b)).

(b) Any reference in this reorganization plan to any provision of law shall be deemed to include, as may be appropriate, reference thereto as amended.

SEC. 2. DELEGATION.—The Secretary of Transportation may delegate any of the functions transferred to him by this reorganization plan to such officers and employees of the Department of Transportation as he designates, and may authorize successive redelegations of such functions.

SEC. 3. URBAN MASS TRANSPORTATION ADMINISTRATION.—(a) There is hereby established within the Department of Transportation an Urban Mass Transportation Administration.

(b) The Urban Mass Transportation Administration shall be headed by an Urban Mass Transportation Administrator, who shall be appointed by the President, by and with the advice and consent of the Senate, and shall be compensated at the rate now or hereafter provided for Level III of the Executive Schedule Pay Rates (5 U.S.C. 5314). The Administrator shall perform such duties as the Secretary of Transportation shall prescribe and shall report directly to the Secretary.

SEC. 4. INTERIM ADMINISTRATOR.—The President may authorize any person who immediately prior to the effective date of this reorganization plan holds a position in the executive branch of the government to act as Urban Mass Transportation Administrator until the office of Administrator is for the first time filled pursuant to the provisions of section 3(b) of this reorganization plan or by recess appointment, as the case may be. The person so designated shall be entitled to the compensation attached to the position he regularly holds.

SEC. 5. INCIDENTAL TRANSFERS.—(a) So much of the personnel, property, records, and unexpended balances of appropriations, allocations, and other funds employed, used, held, available, or to be made available in connection with the functions transferred to the Secretary of Transportation by this reorganization plan as the Director of the Bureau of the Budget shall determine shall be transferred from the Department of Housing and Urban Development to the Department of Transportation at such time or times as the Director shall direct.

(b) Such further measures and dispositions as the Director of the Bureau of the Budget shall deem to be necessary in order to effectuate the transfers provided for in subsection (a) of this section shall be carried out in such manner as he shall direct and by such agencies as he shall designate.

SEC. 6. EFFECTIVE DATE.—The provisions of this reorganization plan shall take effect at the close of June 30, 1968, or at the time determined under the provisions of section 906(a) of title 5 of the United States Code, whichever is later.

PREPARED STATEMENT

Senator STENNIS. Unless there is some comment by the committee we will let the Secretary proceed with his presentation. We are glad to have all you gentlemen here.

Mr. BOYD. Thank you, Mr. Chairman. Mr. Chairman and members of the committee, I am accompanied by Mr. Robson, Mr. Sitton, Mr. Dean, Mr. Hurd, and Mr. Prestemon.

Mr. Chairman, I have a fairly lengthy statement, which, with the permission of the committee, I would like to submit for the record. Then I have a highlight statement which is more brief which I would like to read to the committee with your permission.

Senator STENNIS. All right. I would like for us to hold down the record as much as we can. But anything you have to say about the program is important. So we will put all your statement in the record. (The statement follows:)

BUDGET ESTIMATE

I appreciate your courtesy in arranging this special hearing to give me the opportunity to discuss the Urban Mass Transportation Program and to urge inclusion of the \$230 million budget request for the program for 1970 in the Department of Transportation Appropriation Act.

This request for advance funding of 1970 appropriations was originally presented as part of the President's 1969 Budget to the House Independent Offices Subcommittee. The Subcommittee decided at that time to defer action on the request because (1) Reorganization Plan No. 2, which provided for the transfer of the urban mass transportation programs from the Department of Housing and Urban Development to the Department of Transportation, was still pending before the Congress and (2) legislative authorization for the fiscal year 1970 appropriations had not been enacted. HUD did not formally appeal the House action to the Senate Independent Offices Committee for the same reasons.

Reorganization Plan No. 2 of 1968 became effective July 1. At that time the major portions of the programs authorized by the Urban Mass Transportation Act of 1964 were transferred to the Department of Transportation. The Housing and Urban Development Act of 1968 has now passed both the Senate and the House and includes authorizations for appropriations in the amount recommended by the President for fiscal year 1970. Accordingly, the reasons which led the House Independent Offices Subcommittee to defer action are no longer a barrier to enactment of \$230 million in appropriations for the mass transit grant programs.

BACKGROUND

Before discussing in detail the purposes for which appropriations are being currently requested, I should like to present a brief account of the origins, the purposes and the accomplishments of the Federal program of assistance to urban mass transportation.

As the members of the Committee well know, Federal highway programs have authorized grants to the States for urban highway constructions since 1934. The interstate highway program first authorized in 1956 gave special recognition to intensifying urban transportation problems by requiring that the needs of urban users be provided for in that system.

Since the end of World War II, the Federal Government has also provided financial assistance to metropolitan areas and other urban places for the construction of modern airports. Without these airports and the commercial air transport that has developed apace, growth of intercity travel and cargo movement which enhance the business and prosperity of every city would have been substantially less.

Federal assistance to cities for the alleviation of urban transportation problems is obviously not new. It has grown largely over the years as urban population and urban problems have increased. As air and automobile travel increased with the public provisions of facilities and services, patronage of both rail and bus mass transit in U.S. cities declined precipitously—from a high of 23 billion passengers in 1945 to just over 9 billion passengers in 1960. With loss of traffic and consequent loss of revenue came a rapid deterioration of transit facilities

and equipment and in the level of transit services. Obsolete equipment and inadequate service further reduced the comparative attractiveness of transit, with still further loss of patronage. Commuter railroads that have not suspended service are in dire financial straits, and several are sustained only by heavy State subsidies. Many smaller cities had lost or were in danger of losing all public transportation services. At the same time, users of urban highways, in spite of new construction, experienced increasing delays and congestion especially during rush hours.

Public realization of the essential role of public mass transportation in an effective urban transportation system, the increasing financial difficulties of the cities and the diminishing availability of central city land for additional highway right-of-way, parking and other ancillary facilities precipitated remedial congressional action in 1961.

An emergency urban mass transportation relief measure was written into the Housing Act of that year. It authorized Federal loans to assist in meeting the capital needs of the transit industry and established a program of matching grants to States and local public agencies to assist them in demonstrating new ideas and techniques for the improvement of transit services and equipment.

This stop-gap legislation was designed to meet critical needs pending completion of a study by the Secretary of Commerce and the Housing and Home Finance Administrator to establish basic needs and the appropriate terms and conditions of a long-range and comprehensive program of Federal assistance to urban mass transportation.

On the basis of the conclusions and recommendations of this study, President Kennedy proposed a comprehensive urban mass transportation assistance program in his Transportation Message of 1962. Congress endorsed these proposals by enacting the Urban Mass Transportation Act of 1964 which was approved by President Johnson on July 9, 1964.

The 1964 Act authorized a new program of Federal grants on a matching basis for urban mass transportation capital improvements necessary to the accomplishment of locally-developed transit programs that are fully consistent with areawide comprehensive plans. The 1964 Act also continued and expanded the scope of the pilot projects authorized in 1961.

The 1964 Act was extended and expanded further in 1966 to permit grants to public bodies for planning, engineering and design of urban mass transportation projects.

The 1966 Amendments also included a directive to the Secretary of Housing and Urban Development to prepare a program of research, development and demonstration of new systems of urban transportation for carrying people and goods within metropolitan areas speedily, safely, without polluting the air, and in a manner that would contribute to sound city planning. A report, entitled *Tomorrow's Transportation*, was transmitted by the President to the Congress in May 1968.

REORGANIZATION PLAN NO. 2 OF 1968

The Congress recognized the critical and complex nature of urban mass transportation problems and the need for deliberate consideration of Federal organization to facilitate the dealings of local public agencies with the Federal Government. It provided in the Department of Transportation Act, therefore, for a joint study by DOT and HUD on the logical and efficient organization and location of urban mass transportation functions in the Executive Branch.

This study resulted in the proposals contained in Reorganization Plan No. 2 which was transmitted by the President to the Congress on February 26, 1968. The Congress approved the President's proposals and the plan transferring the program to DOT became effective on July 1, 1968. The President in transmitting the reorganization plan stated three objectives:

1. State and local government agencies should be able to look to a single Federal agency for program assistance and support in transportation matters to assure administrative simplicity and most efficient and economical use of Federal resources.

2. Assumption by DOT of responsibility for Federal promotional initiative in combining a basic system of efficient, responsive mass transit with all the systems of urban, regional and intercity transportation.

3. Strengthening HUD's leadership in comprehensive planning to assure that urban transportation systems conform to and support balanced urban development.

The effectuation of the Reorganization Plan and its objectives will require continuing cooperative effort by the two Departments. This effort has begun and a major objective for fiscal 1969 will be to assure an orderly transition.

Secretary Weaver and I have pledged (a) that program of both Departments will be carried forward under a common set of objectives, (b) that duplication of effort will be avoided, and (c) that Federal resources available to support urban programs will be utilized with maximum efficiency.

ACCOMPLISHMENTS TO DATE

Capital grant program.—Since enactment of the Urban Mass Transportation Act of 1964, the heaviest expenditure of funds has been in the capital improvement grant program. As of June 30, 1968, the cumulative total was nearly \$400 million, covering 91 projects.

In terms of number of projects, grants for bus system improvements are preponderant—with the greatest number of grants under \$1 million going to small and middle-sized cities, mainly for replacement of outworn equipment (nearly 2500 new buses, for instance), or a needed garage or maintenance facility, or to purchase a transit operation that is about to go out of business.

There is little question of the immediate effect of the program in keeping the transit systems alive in a score of smaller cities—such as Albuquerque, New Mexico; Vallejo, San Diego, and Pomona in California; Pueblo, Colorado; Rome, Georgia; Terre Haute, Indiana; Lafayette, Louisiana; Rome and Utica, New York; Columbia, Missouri; Zanesville, Springfield, and Hamilton, Ohio; Salem, Oregon; Jackson, Tennessee; Abilene and Corpus Christi, Texas; and Martinsville, Virginia.

There is little question, also, that the capital grant program has enabled a number of the larger metropolitan areas to proceed with long-delayed rehabilitation and improvement programs which result in the speedier and more efficient movement of hundreds of thousands of commuters. Such an improvement, made possible by Federal assistance, was in the long-delayed Aldene Plane providing Northern New Jersey with a direct trans-Hudson connection to Manhattan—and incidentally assuring continued life to the fading Jersey Central. Similar aid has been given for the extension and rehabilitation of electrification on the Long Island Railroad; for new cars and other improvements on the New Haven Railroad; new cars for the commuter service of the Pennsylvania Railroad; and new cars for the New York City subway system.

The San Francisco Bay Area Rapid Transit District is building the nation's newest rail rapid transit system—the first really improved system in this country in 40 years. Federal funds amounting to more than \$51 million have already been committed to assure the completion of this project. In Chicago, Federal funds are assisting in the construction of two important new rail lines of the city's subway-elevated system—on the median strips in the Dan Ryan and Kennedy Expressways. Boston's old subway stations are being modernized and renovated with capital grant assistance. In Cleveland, capital grant funds have made possible a four-mile extension of the rapid transit system to the Cleveland Hopkins Airport.

These are but a few examples of how the Federal Government has been able to stimulate local initiative in the improvement of public transportation.

The \$400 million in Federal commitments is generating a total capital investment activity of nearly \$800 million in direct construction and manufacturing over the average project period of about two years. It is clear that this program has stimulated renewed interest in revitalization of urban transportation systems on the part of State and local governments. The interest of those States and local public agencies is evidenced concretely by their willingness to invest substantial sums of their own money, notwithstanding the financial difficulties of some States and most of our cities.

The capital grant program, in addition to meeting immediate capital needs, is also making it financially feasible for public officials in urban areas to plan for and develop balanced systems of transportation responsive to the varying needs of the various types of communities. The tangible incentives of these grants, as well as other types of urban assistance grants, have been highly significant in attracting attention to the importance of planning in terms of the entire complex of urban development.

Research and demonstration programs.—A major accomplishment of the demonstration and research program has been to change the climate in which the

transit industry has functioned since World War II from one of frustration to one of hope for the future of public transportation in providing an essential service in our cities.

Individual projects, beginning early in 1962, have tried out and demonstrated the values—and the weaknesses—of new kinds of service and of new hardware.

The premium bus service experiment in Peoria showed how a local transit service which picked up riders in front of their homes and delivered them directly to their jobs could be successfully operated by a private carrier. The service has continued without public help since the demonstration project ended, and the idea has been picked up and used in other areas.

Extensive rail commuter experiments in the Boston, New York, and Philadelphia areas demonstrated how dramatic improvements in service could be made at no additional cost per passenger trip. These demonstration projects have helped revitalize rail commuter service in these cities and have formed the basis for long-range local programs for the support and improvement of rail commuter operations.

Demonstration services in St. Louis, Nashville, and other places are providing valuable information on the transportation needs of low-income areas and on the ways in which these needs can best be met.

Other demonstrations are testing transit marketing techniques, improved ways of scheduling men and vehicles through the use of computers, and better management information systems.

The 4.4 mile test track in the San Francisco Bay Area attracted worldwide interest and participation in the improvement of rapid transit technology—including automatic train controls, better track structure, improved vehicle characteristics, and improved fare collection methods and machinery. The results of these developments were used in the design of the BARTD system and will affect rapid transit design over the next decade or two.

The Transit Expressway, developed and tested at Pittsburgh under the demonstration program, promises to provide the first new rapid transit concept in many years—one specifically adapted to the medium-sized city that is too large to be served exclusively by buses and too small for a conventional rapid transit system. A modification of the Transit Expressway concept will be installed at the new Tampa International Airport, while full-scale installations are under consideration by transit planners in both Pittsburgh and Baltimore.

CURRENT AND FUTURE NEEDS

Program benefits are widely dispersed. Thus far, capital grants have been made to local public agencies in twenty-seven States and applications are pending in two others. Of the cumulative total of capital grant projects approved, more than 40 percent went to cities having less than 250,000 population and 65 percent went to cities having less than 1 million population.

Metropolitan and other urban areas continue to grow rapidly. In nearly all cities the transportation systems are inadequate to meet the needs of large segments of the population. Requests from the cities for Federal assistance to rehabilitate and expand existing mass transit systems and to develop new systems are increasing at an accelerated rate. The need for this aid spans cities of all sizes. While individual grants to larger cities tend to be larger, commensurate with the size of their population and transit system, grants to smaller cities have been more numerous.

It is evident that the cost of meeting these needs is beyond the financial abilities of most of our cities.

The appropriation now requested will preserve the one-year advance funding pattern established for this and other long-lead time programs several years ago. It is, moreover, essential as an element in orderly transition of the program from HUD to DOT administration.

I strongly believe that this is essential. Planning, designing, and arranging local financing for major public works projects is difficult and time-consuming. It is vital to the success of these efforts that our cities be assured that planned-upon Federal assistance will be forthcoming when it is needed. Financing the local share of projects often involves major bond issues which in many cases are subject to referendum. The financial institutions that underwrite these bonds assign great weight to anticipated Federal support in determining interest rates and other terms of the bonding arrangements.

Nearly \$200 million in capital grant applications are presently on hand, compared with the 1969 funded availability of some \$160 million. We can expect at least another \$150 million in capital grant applications during the current fiscal year and the volume could be more than double that in 1970. Thus, even with the full \$230 million requested now for 1970, only the highest priority projects can be aided.

The regular 1969 Department of Transportation Act should, in my opinion, cover all of the presently known needs of the Department. Because the urban transportation program became our responsibility on July 1, I believe that the necessary appropriations for the program should be included in the bill at this time.

For all these reasons, I respectfully request that the Committee give the President's budget estimate of \$230 million for this program most serious consideration. Favorable action by the Committee will be a major step towards solving one of the Nation's most urgent problems.

I should like to assure the Committee that Secretary Weaver and I intend that the programs of the two Departments be complementary rather than competitive. Where complex problems having aspects of interest to both agencies demand priority consideration and can be carried out economically by cooperative effort, we will jointly sponsor projects to solve them. Where one agency's interests are clearly dominant, single agency sponsorship will be utilized but the other agency will be consulted during project formulation, in the course of project implementation and in connection with project review and evaluation. There will at all times be complete and timely exchange of information. Undoubtedly problems will arise during the initial, transitional period. We believe that in the right spirit they can be resolved to the benefit of both the Federal Government and the local public agencies who so badly need Federal assistance to solve their mass transit problems.

BUDGET REQUEST

Senator STENNIS. You may proceed.

Mr. BOYD. Mr. Chairman, the Department is very grateful to you and the subcommittee for making these special arrangements to enable us to urge inclusion in the Department of Transportation appropriation bill of \$230 million to cover advance funding for the urban mass transportation program for fiscal year 1970.

We realize that this is late in the session and we are very appreciative of your willingness to allow a justification to be included in the record on appropriation legislation.

HOUSE DEFERRED ACTION

These funds were requested in the President's budget for fiscal year 1969. In its initial consideration of this proposal, the House subcommittee deferred action (1) because of the pending transfer of the program, and (2) because the Congress had not completed action on necessary authorizations. Through passage of the Housing and Urban Development Act of 1968, both the Senate and the House have now authorized the appropriation which we are requesting, and the transfer of the urban mass transportation program to the Department of Transportation became effective on July 1.

NEED FOR ADVANCE FUNDING

The advance funding pattern has been adopted by the Congress for this and other long-leadtime programs, as for example, the Federal aid highway program. Planning, design and local financing of urban mass transportation projects is a difficult and time consuming process.

The difficulties are aggravated by uncertainty as to Federal financial assistance. Indeed, the very terms, including especially interest rates, on which local debt financing can be done, may be jeopardized by the absence of assured Federal aids because of the weight which private financial institutions place on anticipated Federal support.

FEDERAL ASSISTANCE PROGRAMS

This program has had continuing support from the Congress and we believe has produced great benefits for the people of this country.

I should add also that the idea of Federal assistance for urban transportation facilities is not new. Its acceptance is reflected in long-established programs of Federal assistance for urban highways which have significant beneficial impact on urban as well as on regional and national transportation systems.

The urban mass transportation program is primarily one of grants to assist local public agencies to acquire or construct urban mass transportation equipment and facilities.

Over 90 percent of the program is reflected in the capital grant activities. In the grant program State and local financial resources participate jointly with funds made available by the Federal Government.

The Federal program has made possible the survival and improvement of urban transportation systems—both bus and rail—throughout this country.

By enabling local agencies to purchase new equipment, it has kept transit systems alive in San Diego, Calif.; Pueblo, Colo.; Rome, Ga.; Columbia, Mo.; Jackson, Tenn., and a score of smaller communities.

Many of these smaller communities are experiencing great difficulty in providing financial support for essential public transportation.

Of the number of capital grant projects approved so far, 40 percent have gone to cities of under 250,000 population.

The program is also stimulating a revitalization of rail transit systems in the major urban centers of this country, helping to meet the problem of moving people in densely populated metropolitan areas where the automobile is no longer able to carry the increasing load effectively. And through participation in the San Francisco Bay area rapid transit project, it has supported planning and design of the first new rail rapid transit system to be built in this country in 40 years.

INTEGRATED TRANSPORTATION SYSTEMS

The program also has advanced significantly intermodal cooperation—one of the basic reasons for the formation of the Department of Transportation.

For example, Cleveland through support from the program has extended its rail rapid transit system to the metropolitan airport and Chicago is building additional rail rapid transit lines in the median strip of its freeway system.

RESEARCH, DEVELOPMENT, AND DEMONSTRATION

In addition to the capital grant feature of the program, the legislation provides for the conduct of research, development, and demonstration.

Here, too, we have seen technical progress such as the test track in San Francisco which has attracted worldwide attention in testing innovations in rapid rail transit technology.

New concepts in service techniques have now become parts of commercial transit operations. Peoria's subscription bus service which provided home-to-job transportation is an outstanding project and is now being adopted by other cities.

Most importantly, I firmly believe that Federal participation has stimulated efforts by local communities to improve their transportation systems which otherwise would not have occurred.

TRANSPORTATION FACILITY GRANTS

The \$400 million aggregate of Federal capital grants has generated an additional \$400 million of State and local investment.

It also has demonstrably contributed to the economic welfare of these communities through purchases of supplies, equipment, and materials of construction which have had a beneficial effect on employment and industrial activity throughout the country.

I am strongly convinced that this program has stimulated renewed efforts by our cities to meet the growing problem of providing improved public transportation services for their citizens.

Mr. Chairman, I shall be pleased now to answer any questions which the committee may have.

GRANTS APPROVED IN PRIOR YEARS

Senator STENNIS. As I told you the other day, Mr. Secretary, I am not as familiar with the Urban Mass Transportation program as I am with high-speed ground transportation, a program by the way which I think is highly justified.

Yet I don't see any justification for giving a Federal grant to buy facilities and equipment to a city that is well heeled and has a good income, growing industries and all. That is my idea about it. But certainly any program is entitled to its day in court. I am glad for us to have this hearing and I wanted to be here so that I could learn more about it.

What is the maximum percentage of Federal contribution permitted by law? I assure the Federal-local share is not always the same.

Mr. ROBSON. The maximum, Mr. Chairman, is two-thirds. The grants have varied in practice between 50 percent and two-thirds. Most of them, I believe, are in the 50-percent category.

Senator STENNIS. Could you give us for the record a list of all those grants? The money has all been apportioned out, I suppose, for fiscal 1968?

Mr. ROBSON. Yes, sir.

Senator STENNIS. Give us a list of all those Federal grants and the percentage that they represent for all the fiscal years that the program has been in operation, including 1968.

Mr. BOYD. The major program started in 1964 although its predecessor began in 1961. We will provide you with a list of the projects with the quotas of both Federal and local governments.

(The list follows:)

APPROVED CAPITAL GRANT PROJECTS, JUNE 30, 1968

Project number/grantee/purpose	Project approval	Total estimated project cost	Federal grant
Total (91)		\$764,368,848	\$399,556,403
ARK-UTG-1—City of Little Rock (3): ¹ Buy 42 new buses	Sept. 16, 1965	879,744	² 383,163
CAL-UTG-1—City of Vallejo (2): ¹ Buy 7 new buses	Feb. 8, 1965	115,500	77,000
CAL-UTG-2—Alameda-Contra Costa Transit District (6): ¹ Install 2-way radio on bus system	May 12, 1965	269,000	² 179,333
CAL-UTG-3—Alameda-Contra Costa Transit District (6): ¹ Buy 30 new buses	Apr. 27, 1966	820,000	² 546,666
CAL-UTG-4—City and county of San Francisco (5): ¹ Construct mezzanine/plaza facilities at Powell St. and civic center subway stations; mezzanine at Montgomery St. station	May 27, 1966	39,683,261	² 20,302,011
CAL-UTG-5—City of San Bernardino (4): ¹ Buy 15 new buses; 17 fare boxes	June 23, 1966	432,917	281,178
CAL-UTG-6—San Francisco Bay Area Rapid Transit District (5): ¹ Construct Alameda line	Aug. 25, 1966	34,098,000	13,100,000
CAL-UTG-7—City of Pomona (2): ¹ Buy 8 new buses; 8 used buses with fare boxes	June 30, 1966	277,700	185,133
CAL-UTG-8—City of Oxnard (2): ¹ Buy 9 new buses and fare boxes; construct terminal facility	June 30, 1966	318,195	212,130
CAL-UTG-9—City of Berkeley (3): ¹ Help finance local cost of BARTD subway extension	June 3, 1966	20,811,000	4,733,000
CAL-UTG-10—Stockton Metropolitan Transit District (3): ¹ Buy 20 new buses; modernize office facilities; buy 20 bus shelters and 350 bus stop signs	Sept. 29, 1966	595,980	387,320
CAL-UTG-11—San Francisco Bay Area Rapid Transit District (6): ¹ Construct Mission St. tunnel; Lake Merritt station; BARTD administration building; and sections of roadbed in Contra Costa County	Oct. 13, 1966	45,204,850	13,200,000
CAL-UTG-12—City of San Diego (6): ¹ Acquire assets of San Diego Transit System, Inc., and San Diego Economy Lines, Inc.; buy 100 new buses; remodel and improve premises	May 26, 1967	8,284,500	² 5,268,000
CAL-UTG-13—City of Modesto (1): Buy 4 new buses	Oct. 5, 1967	83,600	² 54,733
CAL-UTG-14—Santa Barbara Metropolitan Transit District (3): ¹ Buy 12 new buses; 12 fare boxes; buy land, construction	Mar. 6, 1968	620,770	² 413,846
CAL-UTG-15—San Francisco Bay Area Rapid Transit District (6): ¹ 4 construction contracts	Feb. 19, 1968	59,995,550	26,000,000
CAL-UTG-16—City and county of San Francisco (5): ¹ Buy and install 192 2-way radios and 2-channel cross circuit	Mar. 13, 1968	190,705	² 127,136
CAL-UTG-18—Transit Authority of the City of Sacramento (5): ¹ Buy 15 new buses; construct garage; service facilities, and administration space	June 26, 1968	1,222,270	² 580,180
COLO-UTG-1—City of Pueblo (2): ¹ Buy major assets of Pueblo Transportation Co.; buy 9 new buses; construct extension to bus garage	Nov. 22, 1965	269,051	179,366
FLA-UTG-1—City of Coral Gables (1): ¹ Buy 20 new buses; 22 new fare boxes	Apr. 1, 1965	647,325	² 431,550
FLA-UTG-2—City of St. Petersburg (4): ¹ Buy 5 new buses	Oct. 11, 1965	150,000	² 96,666
FLA-UTG-3—City of St. Petersburg (4): ¹ Buy 5 new buses; 75 fare boxes	Dec. 5, 1966	199,569	² 121,712
FLA-UTG-4—City of St. Petersburg (4): ¹ Buy 5 new buses; 200 busstop benches	June 26, 1968	158,000	² 98,933
GA-UTG-1—City of Rome (1): Buy 10 35-passenger buses; 5 fare boxes	June 19, 1967	156,000	² 102,800
ILL-UTG-1—City of Chicago Department of Public Works (6): ¹ Extend Englewood Rapid Transit Line, and related improvements	Apr. 27, 1966	5,933,950	3,983,650
ILL-UTG-2—City of Chicago (6): ¹ Kennedy rapid transit project	Mar. 13, 1967	38,717,000	25,936,333
ILL-UTG-3—City of Chicago (6): ¹ Rehabilitation/modification of Clinton Station on CTA Lake Rapid Transit Line for connecting walkway to C. & N.W. commuter station (coordinated with ILL-MTD-5)	June 19, 1967	333,000	222,000
ILL-UTG-4—City of Chicago (6): ¹ Dan Ryan rapid transit project	Mar. 13, 1967	29,941,000	² 20,006,666
ILL-UTG-5—City of Chicago (6): ¹ Buy 150 modern rapid transit cars	May 24, 1968	19,500,000	² 6,500,000
ILL-UTG-6—Springfield, Mass. Transit District (2): ¹ Buy 20 new buses	June 26, 1968	656,250	² 437,500
IND-UTG-1—City of Terre Haute (2): ¹ Buy 18 new buses; 20 fare boxes	Mar. 31, 1965	271,530	181,020
IA-UTG-1—City of Waterloo (2): ¹ Buy 30 new buses	June 30, 1966	490,000	² 326,666
IA-UTG-2—RTA Cedar Rapids (2): ¹ Buy 20 new buses; bus garage and shop; bus washer/cleaner	Oct. 31, 1967	702,898	² 468,598
KANS-UTG-1—City of Topeka (3): ¹ Construct bus garage/servicing/office facility	June 29, 1966	385,000	192,500
KANS-UTG-2—Wichita Metropolitan Transit Authority (4): ¹ Buy 32 new buses; construct garage facilities	June 19, 1967	1,402,000	² 934,666
LA-UTG-1—City of Kenner (1): Buy 2 buses; buy and build garage site and miscellaneous equipment	Feb. 8, 1965	73,590	49,060
LA-UTG-2—City of Lafayette (2): ¹ Buy 15 new buses and miscellaneous equipment; construct terminal/maintenance shop/office facility	June 22, 1966	447,720	² 298,480
MASS-UTG-1—Massachusetts Bay Transportation Authority (6): ¹ Station modernization	Feb. 8, 1965	9,115,920	² 6,077,230
MASS-UTG-2—Massachusetts Bay Transportation Authority (6): ¹ Buy 150 new air-conditioned buses	May 17, 1966	4,835,000	² 3,200,000
MASS-UTG-3—Massachusetts Bay Transportation Authority (5): ¹ Construct rapid transit tunnel and related facilities from Haymarket Sq. to Charlestown	June 10, 1966	22,543,900	² 12,000,000
MASS-UTG-4—Massachusetts Bay Transportation Authority (5): ¹ South Shore project	Mar. 4, 1968	51,821,000	² 35,164,333

See footnotes at end of table.

APPROVED CAPITAL GRANT PROJECTS, JUNE 30, 1968—Continued

Project number/grantee/purpose	Project approval	Total estimated project cost	Federal grant
MICH-UTG-1—City of Saginaw (3): ¹ Buy 14 new buses; 15 fare boxes.	Apr. 1, 1965	\$209,308	\$139,539
MICH-UTG-2—City of Detroit (6): ¹ Bus shelters and other bus stop improvements.	Dec. 28, 1965	526,000	² 350,666
MICH-UTG-3—City of Lansing (3): ¹ Buy 12 new and 6 used buses.	June 30, 1966	567,900	² 378,600
MICH-UTG-4—City of Detroit (6): ¹ Buy 100 new radio-equipped buses; construct administration building.	-----do-----	17,473,400	² 10,120,733
MICH-UTG-5—City of Kalamazoo (3): ¹ Buy 34 new buses; 3 light service vehicles; coin sorter and packager and 38 fare boxes; shop, fueling and servicing equipment; office furniture and equipment; radio equipment; garage and equipment facilities; and 2 acres of land.	Apr. 6, 1967	1,484,922	² 989,948
MICH-UTG-7—City of Flint (3): ¹ Buy 27 new buses.	Oct. 31, 1967	1,640,000	² 1,093,333
MINN-UTG-1—City of Minneapolis (4): ¹ Nicollet Ave. transitway.	Jan. 15, 1968	711,585	² 474,389
MO-UTG-1—City of Columbia: Buy 10 new buses; construction maintenance and storage garage; buy and install 100 bus stop signs.	Feb. 8, 1965	769,900	² 513,266
NJ-UTG-1—State of New Jersey (6): ¹ Assist phases I and II of Aldene Plan.	Sept. 27, 1966	307,215	² 204,810
NJ-UTG-2—New Jersey State Highway Department (6): ¹ Buy 35 new electric MU rail passenger cars.	June 29, 1965	9,110,486	² 4,826,298
NM-UTG-1—City of Albuquerque (4): ¹ Purchase assets of Albuquerque Bus Co.; buy 18 new buses and 4 new service cars; 18 fare boxes.	Oct. 12, 1966	9,991,875	² 6,661,250
NY-UTG-1—City of New York (NYC) Transit Authority (6): ¹ Buy 400 new rapid transit cars.	Mar. 28, 1966	1,241,965	817,726
NY-UTG-2—City of Utica (3): ¹ Buy 50 buses, land, buildings, and equipment owned by the Utica Transit Corp., plus 5 new buses.	Sept. 27, 1965	47,200,000	23,420,000
NY-UTG-3—Metropolitan Commuter Transportation Authority (MCTA) (6): ¹ Extension, rehabilitation, and supplementation of Long Island RR. electrification system.	Jan. 5, 1967	793,000	² 528,666
NY-UTG-4—City of Jamestown (2): Buy 8 new buses; renovate garage facilities.	May 31, 1967	45,724,300	² 30,262,866
NY-UTG-5—City of Rome (2): ¹ Buy 5 new 17-26 buses.	Mar. 13, 1967	314,700	² 209,333
NY-UTG-6—County of Broome (3): ¹ Buy 35 buses, less tires; 35 fare-boxes; buy supervisors vehicles, service trunk and acquisition of land and garage.	Mar. 6, 1968	73,520	² 49,000
OHIO-UTG-1—City of Zanesville (1): ⁵ Buy 8 buses and finance garage and maintenance facilities.	Mar. 26, 1968	1,451,782	² 967,854
OHIO-UTG-2—City of Cleveland (6): ¹ Extend rail rapid transit to airport.	Mar. 29, 1965	165,690	110,460
OHIO-UTG-3—City of Springfield (2): ¹ Buy 12 new buses.	June 3, 1965	18,644,210	12,326,840
OHIO-UTG-4—City of Hamilton (2): ¹ Buy 15 new buses; 25 new fare boxes.	June 30, 1966	185,220	123,480
OKLA-UTG-1—Central Oklahoma Transportation & Parking Authority (5) ¹ .	June 26, 1968	259,928	² 170,285
ORE-UTG-1—City of Salem (2): ¹ Buy 17 new buses and miscellaneous equipment, buy land and bus-washing equipment.	June 12, 1968	908,960	² 605,973
PA-UTG-1—Port Authority of Allegheny County (6): ¹ Buy 180 new buses; build 2 garages.	June 3, 1966	443,070	295,513
PA-UTG-2—City of Philadelphia (6): ¹ Construction and improvements at 15th and Market Sts. subway.	Apr. 30, 1965	8,680,120	5,567,780
PA-UTG-3—Port Authority of Allegheny County (6): ¹ Buy 200 new buses and miscellaneous equipment; construct 3 garages, repair shop, administration building.	June 2, 1965	4,385,000	2,923,333
PA-UTG-4—Southeastern Pennsylvania Transportation Authority (6): ¹ Renovate deteriorated portions of the Reading Co.'s 4-track railroad viaduct.	June 22, 1966	18,141,752	11,290,334
PA-UTG-5—Erie Metropolitan Transit Authority (4): ¹ Buy 50 new buses, assets of private company, land, miscellaneous equipment; build office maintenance facilities.	Jan. 4, 1967	1,800,000	² 1,200,000
PA-UTG-6—Transportation and motor buses for Public Use Authority of the City of Altoona and the Township of Logan, Blair County (3): ¹ Buy 17 new buses.	Aug. 28, 1967	2,148,255	² 1,432,170
PR-UTG-1—Metropolitan Bus Authority of Puerto Rico (5): ¹ Buy 30 new buses.	June 26, 1968	456,960	² 303,173
PR-UTG-2—Puerto Rico Ports Authority (5): ¹ Construct terminal facilities for ferry system between San Juan and Catano.	Nov. 10, 1965	760,000	506,666
PR-UTG-3—Metropolitan Bus Authority of Puerto Rico (5): ¹ Buy 29 new buses; 8 to be air conditioned.	May 18, 1966	407,899	² 271,932
PR-UTG-4—Metropolitan Bus Authority of Puerto Rico (5): ¹ Buy 151 new buses; 151 new turnstiles; 378 new cash vaults, major program, etc.	Dec. 5, 1966	756,566	² 502,444
RI-UTG-1—Rhode Island Public Transit Authority (5): ¹ Buy 102 new buses.	June 26, 1968	5,865,040	² 3,910,026
TENN-UTG-1—Memphis Transit Authority (5): ¹ Buy 75 new buses; heating units for shops; enlarge door openings; washer units.	Nov. 30, 1965	2,457,000	1,638,000
TENN-UTG-2—City of Jackson (1): Buy 12 new buses, land, shop equipment, office equipment, station wagon; construction office/garage building.	Feb. 8, 1965	2,353,680	¹ 1,413,570
TENN-UTG-3—Memphis Transit Authority (5): ¹ Buy 30 new buses; 2-way radio communications; fare boxes and equipment.	Nov. 14, 1966	347,528	² 230,352
	Oct. 31, 1967	2,627,405	² 1,707,394

See footnotes at end of table.

APPROVED CAPITAL GRANT PROJECTS, JUNE 30, 1968—Continued

Project number/grantee/purpose	Project approval	Total estimated project cost	Federal grant
TEX-UTG-1—Dallas Public Transit Board (5): ¹ Buy 310 buses and other equipment; remodel facilities, etc.	Feb. 2, 1966	\$12,045,000	\$8,045,000
TEX-UTG-2—City of Abilene (3): ¹ Buy 6 new buses; construct bus cleaning facility	Sept. 20, 1966	142,606	² 93,738
TEX-UTG-3—City of Corpus Christi (3): ¹ Purchase assets of Nueces Transportation Co.; buy 27 new buses; improve buildings and parking areas.	³ Sept. 23, 1966	1,056,000	704,000
VA-UTG-1—City of Martinsville (1): Buy 7 new buses	Jan. 9, 1967	111,784	² 74,056
WASH-UTG-1—City of Tacoma (3): ¹ Buy 34 new buses	Mar. 31, 1965	928,200	611,333
WASH-UTG-2—State of Washington (Washington State Highway Commission) (6): ¹ Buy 4 new ferry vessels	May 28, 1965	22,904,600	15,216,400
WASH-UTG-4—Seattle Transit Commission (6): ¹ Buy 70 new buses; 2-way radio equipment; construction new terminal and rebuild portion of another terminal	Apr. 18, 1968	5,327,056	² 3,180,286
INT-UTG-1—Port Authority Trans-Hudson Corp. (PATH) (6): ¹ Buy 44 new cars and rehabilitate 47; improve signals, track, right-of-way, stations, power and miscellaneous	June 29, 1965	15,020,000	5,100,000
INT-UTG-2—City of Bristol, Va. and Tenn. (jointly) (1): Buy new buses; construct garage, shop, and related transit facilities	Aug. 28, 1967	392,216	² 245,648
INT-UTG-3—Connecticut Transportation Authority and proposed Commuter Transportation Authority (N.Y.) (6): ¹ Equipment and station modernization of New Haven RR. from New York to New Haven	Dec. 15, 1967	56,800,000	28,400,000
INT-UTG-4—Port Authority Trans-Hudson Corp. (6): ¹ Journal Square Transportation Center	Mar. 26, 1968	34,099,000	² 5,640,666
NT-UTG-5—Bi-State Development Agency (Missouri-Illinois) (6): ¹ Buy 40 new buses; 40 2-way transit radios	June 18, 1968	1,500,000	² 666,666

Note: Population distribution:

(1) Under 50,000; (2) 50,000 to 100,000; (3) 100,000 to 250,000; (4) 250,000 to 500,000; (5) 500,000 to 1,000,000; (6) over 1,000,000.

¹ SMSA, or in SMSA.² 1/9 of Federal grant withheld pending completion of planning requirements under sec. 5 of the act.³ 1/9 grant (\$176,000) approved Sept. 20, 1967.

APPROVED DEMONSTRATION PROJECTS, JUNE 30, 1968

Project number/grantee/purpose	Project approval	Project cost, estimated (actual)	Federal grant maximum, estimated (actual)
Total (76).....		\$74,518,792.00 (74,246,104.92)	\$51,455,208.00 (51,157,923.45)
ALASKA-MTD-1—City of Anchorage (1): Test new bus service routes	June 30, 1964	311,884.00	207,923.00
CAL-MTD-2—SFBARTD (6): ¹ Rapid transit design and operation studies	June 18, 1963	9,329,000.00	6,219,333.00
CAL-MTD-3—City of Oakland (6) ¹ Air cushion vehicle test	Jan. 26, 1965	1,181,726.00 ² (1,159,221.00)	787,817.00 ² (772,814.00)
CAL-MTD-4—SFBARTD (6): ¹ Fare collection equipment test	Feb. 2, 1965	1,700,000.00	1,133,333.00
CAL-MTD-5—Alameda Contra-Costa (6): ¹ Test techniques for coordinating local transportation facilities with area rapid transit (joint project with SFMUNI)	Mar. 11, 1965	301,392.00	200,928.00
CAL-MTD-6—San Francisco Municipal Railway (5): ¹ (Joint project with ACCTD)	Mar. 11, 1965	511,447.00	340,964.00
CAL-MTD-7—SFBRTD (rail fastener) (6): ¹ Test new rail fastener system	Apr. 8, 1966	1,200,000.00	800,000.00
CAL-MTD-8—Los Angeles (Department of Airports) (6): ¹ Skylounge ground-air vehicle feasibility test (system analysis and design)	Apr. 19, 1966	735,175.00	490,112.00
CAL-MTD-9—State of California (Watts area project) (6): ¹ Develop and demonstrate relationship between the transportation system and job opportunities of low-income groups	May 26, 1966	2,700,000.00	2,700,000.00
CAL-MTD-10—The Transit Authority of the City of Sacramento (5) ¹ Test lateral bus line connecting traffic generators	June 12, 1968	426,900.00	284,600.00
CAL-MTD-11—Alameda-Contra Transit District (6): ¹ Test methods for reducing robberies and assaults of bus drivers	May 23, 1968	309,138.00	206,092.00
CONN (See INTERSTATE).			
DC-MTD-2—D.C. government (5): ¹ Test Minibus, downtown circulation	Jan. 24, 1963	240,694.00 (240,103.91)	160,462.00 (160,069.27)

See footnotes at end of table.

APPROVED DEMONSTRATION PROJECTS, JUNE 30, 1968—Continued

Project number/grantee/purpose	Project approval	Project cost, estimated (actual)	Federal grant maximum, estimated (actual)
DC-MTD-3—The National Alliance of Businessmen (6): ¹ Evaluate transportation techniques and plans which will aid the hard core unemployed in obtaining and holding jobs (see also INTERSTATE)	May 24, 1968	\$25,000.00	\$25,000.00
ILL-MTD-1—Chicago Transit Authority (6): ¹ "Skokie Swift" rapid transit extension	Jan. 21, 1964	523,825.00	349,217.00
ILL-MTD-2—Village of Skokie (2): ¹ Design and test suburban bus system (see also INTERSTATE)	June 22, 1964	357,000.00	238,000.00
ILL-MTD-3—University of Illinois (Peoria) (3): ¹ Test contractual fare and other bus service improvements	June 30, 1964	230,133.00	153,422.00
ILL-MTD-4—University of Illinois (Decatur) (2): ¹ Test contractual fare and other bus service improvements	Jan. 26, 1965	99,336.00	66,224.00
ILL-MTD-5—Chicago Transit Authority (6): ¹ Connecting pedestrian passageway between stations of CTA rapid transit and C. & N.W. commuter service (coordinated with ILL-UTG-3)	June 19, 1967	498,000.00	332,000.00
ILL-MTD-6—Chicago Transit Authority (6): ¹ Develop, test and evaluate electronic information system	Mar. 8, 1968	2,000,000.00	1,549,000.00
KANS-MTD-1—Kansas State University (1): Design computer program for transit operator	Apr. 23, 1963	18,705.00 (18,337.38)	12,470.00 (12,224.92)
MD-MTD-1—Metropolitan Transportation Authority of Maryland (6): ¹ Suburban express bus service to downtown	Mar. 16, 1966	80,025.00	53,350.00
MD-MTD-2—The Columbia Park and Recreation Association, Inc.: Test a public transportation system as an integral part of a new town. (See also: INTERSTATE.)	June 6, 1968	416,600.00	277,733.00
MASS-MTD-1—Massachusetts Transportation Commission (6): ¹ Test rail and bus service improvements	Sept. 28, 1962	5,400,000.00 (5,228,947.72)	3,600,000.00 (3,485,965.14)
MASS-MTD-2—Massachusetts Bay Transportation Authority (6): ¹ Test and analyze field measurement systems for deep braced cuts and tunnel construction	Sept. 30, 1966	240,900.00	160,600.00
MASS-MTD-3—Massachusetts Institute of Technology (3): ¹ Study relationship between the availability and cost of transportation services to low-income persons	June 19, 1967	160,635.00	151,975.00
MASS-MTD-4—Harvard College, Hopyoke Center (3): ¹ Study legal problems incident to or affecting UMT grant, loan, demonstration and research programs of DHUD	June 29, 1967	23,815.00	22,624.00
MASS-MTD-5—MIT (3): ¹ Test CARS system	Mar. 26, 1968	85,000.00	81,250.00
MICH-MTD-1—City of Detroit (6): ¹ Test improved bus service	Mar. 27, 1962	336,600.00 (295,453.69)	224,400.00 (196,969.12)
MICH-MTD-2—Flint Transportation Authority (3): ¹ Home to destination and return bus service	Jan. 15, 1968	776,273.00	517,516.00
MO-MTD-1—City of St. Louis (6): ¹ Study transportation needs of low-income residents of medium and higher density central city areas of St. Louis	June 12, 1967	1,275,000.00	1,147,274.00
MO-MTD-2—Washington, University, St. Louis, Mo., acting through the Institute for Urban and Regional Studies (6): ¹ Study the relationship of public transportation to the alleviation of unemployment	May 24, 1968	127,318.00	120,952.00
(MO—See also: INTERSTATE)			
NJ-MTD-1—Rutgers University (1): Evaluate use of air space in urban transportation	Mar. 6, 1967	65,306.00	49,306.00
(NJ—See also: INTERSTATE)			
NY-MTD-5—City of New York, Queens-Long Island studies (6): ¹ Maximum use of transportation facilities	June 21, 1963	4,778,000.00	3,185,000.00
NY-MTD-6—City of Rome (2): ¹ Design small-city bus system	June 22, 1964	268,408.00	178,939.00
NY-MTD-8—NYC Transit Authority (6): ¹ Test 2-way radio for transit	June 25, 1964	750,805.00	500,537.00
NY-MTD-9—NYC Transit Authority (6): ¹ Study travel pattern changes resulting from January 1966 strike	Jan. 24, 1966	80,000.00 ² (75,740.19)	53,333.00 ² (50,493.00)
NY-MTD-10—State of New York (Department of Public Works) (6): ¹ Develop and field test a modal choice simulation model for planning urban transportation facility	Mar. 6, 1967	682,105.00	454,736.00
(See also INTERSTATE.)			
NY-MTD-11—Town of Hempstead (1): ¹ Test patronage of small bus service for a medium and higher income suburb	May 26, 1967	270,562.00	180,375.00
NY-MTD-12—NYC Transit Authority (6): ¹ Thermoelectric air conditioning system (thermal system model)	Oct. 31, 1967	255,000.00	170,000.00
NY-MTD-13—Institute of Public Administration (IPA) (6): ¹ Test "share the rails" transit service	June 12, 1968	63,160.00	60,002.00
NY-MTD-14—Niagara Frontier Transportation Authority (co-participant: Opportunities Development Corp. (6): ¹ Determine how previously nonexistent transportation facilities can best be applied to increase employment levels in distressed urban areas	June 26, 1968	547,074.00	492,367.00
NY-MTD-15—The National Bureau of Economic Research (6): ¹ Develop a prototype model which simulates the feed-backs of the interrelationships between urban land use and transportation system developments	June 27, 1968	313,500.00	229,260.00

See footnotes at end of table.

APPROVED DEMONSTRATION PROJECTS, JUNE 30, 1968—Continued

Project number/grantee/purpose	Project approval	Project cost, estimated (actual)	Federal grant maximum, estimated (actual)
OHIO-MTD-1—Kent State University (1): ¹ Develop and test a modern management control system for transit	Mar. 6, 1967	\$342,539.00	\$304,995.00
OHIO-MTD-2—Case Western University, Cleveland (6): ¹ Plan transportation systems for downtown Cleveland	Jan. 23, 1968	309,000.00	206,000.00
PA-MTD-1—SEPACT (I) (6): ¹ 1st commuter rail service approved	Oct. 22, 1962	4,674,300.00	3,116,200.00
PA-MTD-2—Port Authority of Allegheny County (6): ¹ Test "Sky Bus" rail rapid transit (phases I and II)	June 15, 1963	7,400,000.00	4,472,000.00
PA-MTD-4—SEPACT (II) (6): ¹ Rail cost/benefit study	June 12, 1963	437,500.00	291,667.00
PA-MTD-5—SEPACT (III) (6): ¹ Test fare and service improvement on Reading Railroad	Apr. 23, 1965	4,742,000.00	2,977,000.00
PA-MTD-6—New Castle area Transportation Authority (2): ¹ Test small buses for small city transportation	June 14, 1965	548,847.00	365,898.00
PA-MTD-7—Port Authority of Allegheny County (6): ¹ Develop concepts and techniques for information advertising and promotion for large metropolitan area	Apr. 7, 1967	300,000.00	200,000.00
PA-MTD-8—University of Pennsylvania (6): ¹ Test small emission-limited car in CBD as collector and feeder for rapid transit system	May 9, 1967	311,955.00	299,955.00
RI-MTD-1—Rhode Island Public Transportation Authority (5): ¹ Transit feasibility study	June 25, 1964	30,000.00 (30,753.40)	20,000.00 (20,000.00)
RI-MTD-2—Rhode Island Public Transportation Authority (5): ¹ Test whether residents of a medium-income suburb served primarily by auto, will patronize express bus service	Sept. 18, 1967	54,887.00	36,591.00
TENN-MTD-1—Memphis Transit Authority (5): ¹ Test bus service to new community	Dec. 4, 1962	353,788.00 (345,934.64)	235,858.00 (230,623.08)
TENN-MTD-2—Metropolitan Transit Authority Authority of Nashville-Davidson County (4): ¹ Test bus service improvement to meet land-use changes	June 21, 1963	600,000.00	400,000.00 ² (344,409.17)
TENN-MTD-3—Metropolitan Transit Authority Authority of Nashville-Davidson County (4): ¹ Test connecting express bus service	Nov. 23, 1964	128,667.00	85,778.00 ² (53,175.59)
TENN-MTD-4—Metropolitan Transit Authority of Nashville-Davidson County (4): ¹ Test improved transit routes for service to major medical centers	June 30, 1966	723,000.00	482,000.00
VA-MTD-1—City of Chesapeake (2): ¹ Test full express service to Norfolk CBD	June 23, 1965	361,899.00	241,266.00
VA-MTD-2—Virginia Polytechnic Institute of Blacksburg (1): Develop a simulation exercise or management game to assist in transit industry personnel development progress (see also Interstate)	May 24, 1968	33,068.00	29,433.00
WASH-MTD-1—University of Washington (5): ¹ Seattle monorail analysis	June 29, 1962	15,000.00	10,000.00
WASH-MTD-2—Seattle Transit Commission (5): ¹ "Blue Streak" reserved lanes	Dec. 12, 1967	1,546,445.00	1,030,963.00
WASH-MTD-3—City of Seattle: Operational test of bus service using nominally idle equipment and manpower	June 18, 1968	27,370.00	11,770.00
WVA-MTD-1—West Virginia University (1): ¹ Develop computer model for "run cutting"	June 14, 1965	25,950.00 ² (25,377.49)	17,300.00 (16,727.49)
WVA-MTD-2—West Virginia University (1): Test automatic monitoring device	Jan. 31, 1967	109,600.00	73,000.00
INTERSTATE			
INT-MTD-1—Tri-State Transportation Commission (Conn.-N.J.-N.Y.) (6): ¹ Test special park-ride stations on P.R.R. (New Brunswick)	Dec. 17, 1962	256,185.00 ² (242,825.00)	170,790.00 ² (161,883.00)
INT-MTD-2—Tri-State Transportation Commission (Conn.-N.J.-N.Y.) (6): ¹ Test fare collection equipment (L.I. R.R.-Queens)	Jan. 10, 1963	272,140.00 ² (266,518.00)	181,426.00 ² (177,678.00)
INT-MTD-5—Tri-State Transportation Commission (Conn.-N.J.-N.Y.) (6): ¹ Test improvements commuter service (N.Y. Central, Harlem Division, Westchester-Putnam)	June 18, 1963	1,948,631.00	1,299,087.00
INT-MTD-7—Tri-State Transportation Commission (Conn.-N.J.-N.Y.) (3): Test improvements bus-to-rail service (Rockland County)	June 21, 1963	² 148,740.00	² 99,160.00
INT-MTD-8—Bi-State Development Agency (Mo.-Ill.) (6): ¹ Test express and cross-county bus service (St. Louis area)	Feb. 10, 1964	536,631.00 (536,631.00)	357,754.00 (357,754.00)
INT-MTD-9—Bi-State Development Agency (MO-ILL) (6): ¹ Test monthly pass (St. Louis area)	Mar. 27, 1964	20,544.00 (14,432.50)	13,696.00 (9,621.67)

See footnotes at end of table.

APPROVED DEMONSTRATION PROJECTS, JUNE 30, 1968—Continued

Project number/grantee/purpose	Project approval	Project cost, estimated (actual)	Federal grant maximum, estimated (actual)
INT-MTD-10—Washington Metropolitan Area Transit Commission (DC-MD-VA) (6): ¹ Test new information aids for transit riders	June 22, 1964	\$262,634.00	\$175,089.00
INT-MTD-11—Tri-State Transportation Commission (NY-CONN only) (6): ¹ Test New Haven RR service improvement	June 21, 1965	4,500,000.00	3,000,000.00
INT-MTD-12—Tri-State Transportation Commission (CONN-NJ-NY) (6): ¹ LIRR gas turbine test	Jan. 18, 1966	1,386,609.00	924,406.00
INT-MTD-13—Tri-State Transportation Commission (New York) (6): ¹ Changes in transit service to improve access to employment concentrations outside CBD	Mar. 9, 1967	2,222,222.00	2,000,000.00
INT-MTD-14—Washington Metropolitan Area Transit Commission (DC-MD-VA) (6): ¹ Use computer programs to test alternate systems and schedules for maximum service at minimum costs	June 19, 1967	106,500.00	71,000.00
INT-MTD-15—Washington Metropolitan Area Transit Commission (6): ¹ Test use of scrip in buses	June 4, 1968	86,700.00	86,700.00

Note: Population distribution: (1) Under 50,000; (2) 50,000 to 100,000; (3) 100,000 to 250,000; (4) 250,000 to 500,000; (5) 500,000 to 1,000,000; (6) over 1,000,000.

¹ SMSA, or in SMSA.

² Final.

APPROVED GRANTS FOR TECHNICAL STUDIES, JUNE 30, 1968

Project number, grantee, purpose	Project approval	Total project cost	Federal grant (2/3 maximum)
Total (32)		\$10,967,411	\$7,042,944
ARIZ-T9-1—City of Phoenix (5): ¹ Increase employment opportunities encouraging private enterprise to relocate in areas of high unemployment	Mar. 21, 1968	71,832	45,832
CAL-T9-1—Southern California Rapid Transit District (SCRTD) (6): ¹ Complete definitive plan for 65-mile rapid transit system for the Los Angeles area	May 31, 1967	3,380,000	2,253,333
CAL-T9-2—Southern California Rapid Transit District (SCRTD) (6): ¹ Preliminary engineering studies of rapid transit line between Los Angeles airlines terminal and Los Angeles International Airport	June 26, 1968	369,500	246,333
CAL-T9-3—City of Fresno (3): ¹ Examine transportation operations, ridership, cost trends, route and service adequacy, including express, school, and charter service	Mar. 21, 1968	60,000	40,000
CAL-T9-4—City of San Bernardino (3): ² Study will determine the transportation needs of low-income neighborhood residents with a view of increasing employment opportunities	Mar. 21, 1968	25,000	16,666
CAL-T9-5—City of Oakland (4): ¹ Provide low-income residents equal access to job placement services and stressed the necessity for adequate transportation to outlying job centers	do	52,763	35,174
CAL-T9-6—City of San Jose (5): ¹ Conduct a thorough analysis of mass transportation for the area			
COLO-T9-1—City of Pueblo (3): ¹ Analyze the requirements for and determine the feasibility of establishing new bus routes from ghetto-type areas to areas of employment	June 18, 1968	233,000	155,334
COLO-T9-2—City and county of Denver (4): ¹ Evaluate public transit needs of low-income residents living in 5 underprivileged neighborhoods	June 6, 1968	20,760	13,840
GA-T9-1—Metropolitan Atlanta Rapid Transit Authority (6): ¹ Preliminary engineering and planning studies and related work necessary to present a coordinated rapid transit system for voter appraisal	June 18, 1968	100,000	66,667
HAWAII-T9-1—City and County of Honolulu (6): ¹ Examine the relationship between public transportation availability and improvements and employment opportunities	Dec. 13, 1966	804,000	535,999
ILL-T9-1—City of Chicago, Mayor's Committee for Economic and Cultural Development (6): ¹ Evaluate job accessibility for residents of low-income areas based on the present transportation system	June 18, 1968	103,950	69,300
LA-T9-1—City of New Orleans, Railroad Terminal Board (5): ¹ Explore feasibility of installing rail rapid transit line between terminal in CBD and international airport	do	98,687	63,596
MD-T9-1—Regional Planning Council (Baltimore) (6): ¹ Determine location, costs economic, social, and esthetic impact, and social improvements of a proposed transit plan	May 29, 1968	57,000	38,000
MASS-T9-1—Massachusetts Bay Transportation Authority (MBTA) (6): ¹ Advanced planning and preliminary engineering and architectural studies for 11.5 miles of the proposed Southwest Rapid Transit Line	June 19, 1967	1,350,000	900,00
	June 13, 1967	726,726	484,484

See footnotes at end of table.

AP PROVED GRANTS FOR TECHNICAL STUDIES, JUNE 30, 1968—Continued

Project number, grantee, purpose	Project approval	Total project cost	Federal grant (2/3 maximum)
MASS-T9-2—City of Lawrence (3): ¹ Deficiency of mass transportation service in the Greater Lawrence Area has restricted access by its unemployment and disadvantaged residents to employment and retraining opportunity	Mar. 21, 1968	\$15,415	\$10,276
MASS-T9-3—Old Colony Planning Council, Brockton, Mass., area (3): ¹ Consider alternative forms of public transportation operations; analyze adequacy of existing routes; develop a program responsive to unique local conditions	June 26, 1968	84,000	56,000
MICH-T9-1—Southeastern Michigan Transportation Authority (6): ¹ Study development and operation of a coordinated transit system for Detroit	May 16, 1968	120,000	80,000
MINN-T9-1—Twin Cities Area Metropolitan Transit Commission (6): ¹ Study present system, investigate system benefits of "new concept" transit hardware	Mar. 6, 1968	594,400	396,266
MONT-T9-1—City of Great Falls (2): ¹ Determine the public need for and feasibility of providing transit service with public assistance and determine what criteria will be needed to provide an attractive transit	Feb. 1, 1967	7,250	4,833
NEB-T9-1—City of Omaha (3): ¹ To analyze the feasibility of establishing service and will determine routes, frequency of service, fare structure, etc.	Mar. 21, 1968	15,000	10,000
NJ-T9-1—City of Newark (5): ¹ Develop a solution for matching skills of unemployed and underemployed with job opportunities; including promotional efforts	June 18, 1968	45,000	30,000
NY-T9-1—Board of Supervisors (Broome County) (3): ¹ Evaluate need for public transit in the Triple Cities; level of service required and means of promoting and marketing that service	Feb. 1, 1968	58,596	39,064
NY-T9-2—Nassau County (6): ¹ Provide research analysis and professional aid to negotiate the restructure of bus franchises	June 26, 1968	37,522	25,014
NY-T9-3—City of Syracuse (3): ¹ Determine, test, and improve the relationship between a public transportation system and job opportunities for low-income groups	June 18, 1968	46,580	29,980
OHIO-T9-1—Akron Metropolitan Regional Transit Authority (5): Studies of transit services to determine adequacy	Aug. 28, 1967	26,530	17,687
VA-T9-1—Richmond Regional Planning Commission (4): ¹ Determine the most desirable organization structure for development of a coordinated areawide transit system	June 18, 1968	90,000	60,000
WASH-T9-1—City of Seattle (6): ¹ Proposed studies relating to a rail rapid transit line 10 miles in length with 13 stations connecting the CBD to the entire north area of the city	Feb. 3, 1967	1,399,000	816,000
WISC-T9-1—Board of County Supervisors (Milwaukee) (6): ¹ Explore factors affecting the development of the metropolitan area, including its transportation facilities, travel characteristics, and trip generating patterns	Jan. 10, 1968	550,000	1,220,000
INT-T9-1—Kansas City Transportation Authority (Kansas-Missouri) (6): ¹ Determine economic feasibility of unifying/improving operations of 10 local transit carriers within transportation district	June 19, 1967	15,000	10,000
INT-T9-2—Delaware River Port Authority (6): ¹ Studies relating to the need to establish bus feeder and related routes in support of the Lindenwold line; and work out a system whereby the operation would be converted from a through service to a feeder-type service	June 12, 1967	120,000	80,000
INT-T9-3—Kansas City Transportation Authority (Kansas-Missouri) (6): ¹ Study needs of mass transportation facilities between airport and downtown area; determine need for construction of terminal facility	June 19, 1967	34,900	23,266
INT-T9-4—Bi-State Development Agency, (Missouri-Illinois) Metropolitan District, St. Louis, Mo. (6): ¹ Develop an optimum mass transportation system; define routes; station locations; establish construction; rolling stock requirements and determine cost estimates	Jan. 24, 1968	255,000	170,000

Note: Population distribution: (1) Under 50,000; (2) 50,000 to 100,000; (3) 100,000 to 250,000; (4) 250,000 to 500,000; (5) 500,000 to 1,000,000; (6) over 1,000,000.

¹ SMSA, or in SMSA.

² Final.

APPROVED RESEARCH AND DEVELOPMENT PROJECTS

Project Number/contractor/description	Agreement/ contract	Federal cost
Total (25).....		\$2,670,710
TRD-1—American Society of Planning Officials, Chicago, Ill.: Assemble data obtained for 1964 national survey of metropolitan planning	Dec. 1, 1964	6,000
TRD-2—Barton-Aschman Associates, Inc., Chicago, Ill.: Study and develop a report on the relationship of land use to urban mass transportation development	Dec. 7, 1965	43,400
TRD-3—Alan M. Voorhees & Associates, Inc., McLean, Va.: Prepare a set of computer programs for use by comprehensive metropolitan planning agencies in planning mass transit systems	June 15, 1966	241,300
TRD-4—U.S. Department of Interior, Bureau of Mines, Washington, D.C.: Research on rapid excavation capability; and exploration of problems and needs	Aug. 30, 1966	10,000
TRD-5—Robert S. Mayo and Associates, Lancaster, Pa.: Study, collect, and analyze information about subaqueous and softground tunnel linings	Jan. 30, 1967	149,991
TRD-6—American Society of Civil Engineers, Inc., New York, N.Y.: Prepare evaluation studies of the state of knowledge on urban transportation; compilations of research in progress; sources of information; recommendations for future research, and recommendations for development and maintenance of research information storage and dissemination systems	June 21, 1967	62,700
TRD-7—National Academy of Sciences, Washington, D.C.: Develop design and performance criteria for improved nonrail urban mass transit vehicles	Jan. 27, 1967	150,000
TRD-8—Department of Commerce, Washington, D.C.: Participation in panel on electrically powered vehicles	Feb. 14, 1967	10,000
TRD-9—General Motors Corp., Warren, Mich.: Implementation study of practical questions involved in new systems of urban transportation for metropolitan areas of 2 to 4 million population, and for cities of 200,000 to 400,000 population	Mar. 27, 1967	299,847
TRD-10—North American Rockwell Corp., Los Angeles, Calif.: Frontiers of technology study, to survey aerospace, atomic, defense, and other highly advanced technologies for elements of hardware and systems transferrable to urban transportation ¹	Mar. 27, 1967	311,766
TRD-11—Battelle Memorial Institute, Columbus, Ohio: Systems-screening study on possible urban transportation projects ¹	Apr. 1, 1967	393,590
TRD-12—Cornell Aeronautical Labs., Ithaca, N. Y. (with Alan M. Voorhees): Conduct a bimodal small-vehicles study in one city ¹	Mar. 27, 1967	110,190
TRD-13—General Electric Co., Washington, D.C.: Electronic command and control study of transponders, vehicle-separation radar, vehicle-location lasers, advanced traffic and safety signals, etc., for applicability to forms of urban transportation ¹	Apr. 1, 1967	248,783
TRD-14—Texas Transportation Institute, College Station, Tex. (Texas A. & M. University): Study the feasibility of bus rapid transit operations on urban freeways using traffic surveillance and control	June 26, 1967	98,716
TRD-16—DOT-HUD Rand Project, Washington, D.C.: Seminar on urban transportation problems	June 30, 1967	25,000
TRD-17—B-K Dynamics, Inc., Bethesda, Md.: In-depth analysis of GMC report ¹	Sept. 25, 1967	2,397
TRD-18—National Bureau of Standards, Washington, D.C.: Technical evaluation of mathematical modeling efforts as part of new systems studies ¹	Sept. 11, 1967	10,000
TRD-20—Applied Physics Laboratory of Johns Hopkins University, Silver Spring, Md.: Evaluation and experimental test for the gravity vacuum system	Feb. 26, 1968	65,185
TRD-22—(Contracts awarded to several firms): Preparation of new systems study summary to the President and Congress ¹	Jan. 22, 1968	56,000
TRD-23—Interagency agreement with the Washington, D.C., Technical Analysis Division, Institute of Applied Technology, National Bureau of Standards: Network assignment models for northeast corridor transportation systems planning study ¹	Apr. 23, 1968	75,000
TRD-31—URS Corp., San Mateo, Calif.: Consolidation of results from the 17 new systems study contracts for presentation in a technical summary ¹	Feb. 23, 1968	15,545
TRD-34—National Capital Planning Commission, Washington, D.C.: Design and develop a major transportation center at Union Station in Washington, D.C.	Mar. 12, 1968	75,000
TRD-36—Interagency agreement with DCT-Washington, D.C.: Conduct a study of transportation in the Cleveland airport corridor	Feb. 15, 1968	98,500
TRD-33—Alan M. Voorhees, Inc., Washington, D.C.: Southwest employment area transit improvement program	Mar. 28, 1968	95,900

¹ Related to new systems study.

SPECIAL STUDY—NEW SYSTEMS R.D. & D; JUNE 30, 1968

Project Number/Contractor/Description	Agreement/ contract	Federal cost
Total (12)		\$2,391,802
TRNS-1—Stanford Research Institute, Menlo Park, Calif.: Futuristic study of ideal technological solutions to urban transportation problems with solutions to be available in from 5 to 15 years	Feb. 6, 1967	594,472
TRNS-2—Westinghouse Air Brake Co., Pittsburgh, Pa.: Evolutionary study of substantial improvements in existing urban transportation systems, and the emergence of new systems, with solutions available in from 3 to 8 years	Feb. 17, 1967	494,604
TRNS-3—General Research Corp., Santa Barbara, Calif.: Conduct, with the aid of computers, a refined yet practical systems analysis of problems and solutions, strengths and weaknesses, origins, and destinations, points served and lands traversed, in urban transportation	Feb. 8, 1967	503,448
TRNS-4—Day and Zimmerman (with FMC Corp.) Philadelphia, Pa.: Utilization study of methods to obtain improved results from existing transportation technologies	Feb. 1, 1967	300,000
TRNS-D-1—Peat, Marwick, Livingston Co., New York, N.Y.: Projection of urban personal transportation demand	Jan. 28, 1967	94,700
TRNS-D-2—Consad Research Corp., Pittsburgh, Pa.: Sensitivity of urban personal travel demand	June 28, 1967	64,504
TRNS-D-3—Transportation Research Institute, Carnegie Mellon University, Pittsburgh, Pa.: Latent demand for urban personal transportation to satisfy urban and social needs unmet by existing systems	June 28, 1967	48,952
TRNS-D-4—Batelle Memorial Institute, Columbus, Ohio: Columbus Laboratories, urban goods movement demand	June 28, 1967	29,720
TRNS-D-5—ABT Associates, Inc., Cambridge, Mass.: Qualitative aspects of urban personal travel demand	June 28, 1967	30,000
TRNS-D-6—Barton-Aschman Associates, Inc., Chicago, Ill.: Land-use requirements of urban transportation systems, and the impacts of system characteristics upon traversed urban environments	June 28, 1967	151,925
TRNS-D-7—Regional Economic Development Institute, Inc., Pittsburgh, Pa., Transportation requirements and effects of new communities	June 28, 1967	49,727
TRNS-D-8—Midwest Research Institute, Kansas City, Mo.: Special transportation requirements in small cities and towns	June 28, 1967	29,750

APPROVED MANAGERIAL TRAINING PROJECTS, JUNE 30, 1968

Project	Approval date	Number of fellowships	Federal grant (committed to date)
Total (10)		48	\$129,610.56
MTTR-1—1967 summer seminars at Kent State University, Ohio, and West Virginia University	May 15, 1967	39	97,590.00
MTTR-2(1)—1 fellowship at University College, London, England, for a period of 9 months from Apr. 1, 1968, through Dec. 31, 1968	Dec. 22, 1967	1	12,000.00
MTTR-2(2-9)—Massachusetts Bay Transportation Authority: 1 fellowship 7 fellowships	May 31, 1968 June 26, 1968	8	20,020.56

FUTURE GRANT PROGRAM

Senator STENNIS. The second question along that line is, What will be your proposals for fiscal years 1969 and 1970?

Could you give us some idea of where this 1969 and 1970 money will probably go in the way of grants? I think all the members are interested in that.

Mr. BOYD. Yes, sir; we will give you that.

Senator STENNIS. That is an essential part of the picture.

Mr. BOYD. We will give you, for the record, a general distribution of projects as we see it now.

(The information follows:)

CAPITAL GRANT PROGRAM FOR FISCAL YEAR 1969 AND FISCAL YEAR 1970

There is furnished for the record a list of the capital grant applications now under review by the Urban Mass Transportation Administration. Since this review is now in process, it is not possible to indicate specifically which of these projects will (1) meet the basic eligibility requirements under the Urban Mass Transportation Act of 1964 or (2) fall within the selection criteria to be applied in making final decisions on approval.

Based on past experience and a review of the list of pending applications, it is expected that approvals during these fiscal years will fall into the categories indicated below:

	<i>Percent</i>
Rail (commuter railroad and rapid transit) -----	80
New construction -----	50
Rolling stock -----	30
Bus systems -----	20
Fixed facilities (garages, shops, etc.) -----	10
Buses -----	10

(See list p. 28)

OTHER BUDGET ITEMS

Senator STENNIS. Our memorandum mark-up showed you had several different budget items. One was for grants and another was for research, development and demonstration, for which you are requesting \$30 million for fiscal year 1970. For grants for technical studies it shows a request of \$9 million for fiscal year 1970, and for the managerial training program it showed for 1970, \$1 million.

Mr. BOYD. Yes, sir.

Senator STENNIS. That left for grants approximately \$190 million. That is what I wanted you to give us the best you could, what projects do you expect to have included in that \$190 million for capital grants?

Mr. BOYD. We will provide that.

Senator STENNIS. While we are on this subject what was the amount for 1969 grants?

Mr. ROBSON. Roughly \$154 million, Mr. Chairman.

Senator STENNIS. You expect to use that.

Mr. BOYD. Yes, sir.

Senator STENNIS. \$154 million for grants.

Mr. BOYD. Yes, sir.

Senator STENNIS. Well, you had almost as much for grants last year as you are estimating for 1970.

Mr. BOYD. Yes, sir.

BUDGET ESTIMATES, 1969 AND 1970

Senator STENNIS. How did your other budget items compare with the 1969 estimate?

Mr. BOYD. We go up from \$12.5 million for research and development in 1969 to \$30 million in 1970. We go up from \$5.8 million on systems design and technical studies to \$9 million in fiscal year 1970. Managerial training remains constant at \$1 million. I will give you a complete picture for the record.

(The information follows:)

URBAN MASS TRANSPORTATION FUND, PROGRAM AND FINANCING

[In thousands of dollars]

	Administrative reservations		Costs and obligations	
	1969 estimate	1970 estimate	1969 estimate	1970 estimate
PROGRAM BY ACTIVITIES				
Capital outlay:				
Grants:				
1. Transportation facility grants.....	154,440	190,000	132,740	162,300
2. Research, development, and demonstration....	12,500	30,000	5,800	13,800
3. Grants for technical studies.....	5,750	9,000	3,100	4,800
4. Managerial training program.....	1,000	1,000	500	500
Subtotal.....	173,690	230,000	142,140	181,400
Change in selected resources ¹			31,550	48,600
Total obligations.....			173,690	230,000
Financing:				
Receipts and reimbursements from non-Federal sources:				
Loan repayments.....			-200	-200
Revenue.....			-190	-180
Unobligated balance available, start of year:				
Authorization to spend public debt receipts.....			-50,000	-50,000
Transfer from HUD fund balance.....			-14,758	
Fund balance.....				-9,208
Unobligated balance, end of year:				
Authority to spend public debt receipts.....			50,000	50,000
Fund balance.....			9,208	9,588
New obligational authority.....			167,750	230,000
New obligational authority:				
Permanent authorization:				
Appropriation transfer ²			167,750	
Appropriation.....				230,000

¹ Undisbursed obligations.² Transferred by Bureau of the Budget determination order. Of the total 1969 appropriation of \$175,000,000, DOT received \$167,750,000 and HUD received \$7,250,000.

NEW TRANSPORTATION SYSTEMS STUDY

Senator STENNIS. Why are those items going up, gentlemen, when you have been in this research, development, and demonstration for several years now.

Mr. BOYD. There was a major study which was undertaken 18 months ago at the request of the Congress to develop a concept for studies and demonstrations on a total urban transportation approach. That study was completed and filed with the Congress in May of this year.

The increase from \$12.5 to \$30 million generally tracks the conclusions and recommendations in that report.

Senator STENNIS. Does that contemplate sizable sums for succeeding years or is this already peaked now at \$30 million.

Mr. BOYD. No, sir. It anticipates substantially increased sums in the technical studies area for future years.

Senator STENNIS. Well, the technical studies is a relatively small matter. Research, development, and demonstration is the large one. Will that go up or down in your opinion?

Mr. BOYD. That will go up.

Senator STENNIS. Why is that?

Mr. BOYD. The program which was developed in this study outlines a number of major areas of research and development activity which can only be done with the expenditure of substantial sums of money.

TRANSFER OF PROGRAM TO DOT

Senator STENNIS. Mr. Boyd, you really haven't had jurisdiction over this matter until the last few days; is that correct?

Mr. BOYD. That is correct, sir.

Senator STENNIS. Has your staff had a chance to really study this and actually become familiar with it?

Mr. BOYD. Mr. Robson, in addition to being Under Secretary, is the interim Administrator of the Urban Mass Transportation Administration and has devoted practically all of his time since the first of July on this program.

I doubt that he has been able to get deeply into the research activity. We did have an opportunity to look at the study at the time it was submitted to the Congress but I wouldn't say we had time to review it in any depth.

Senator STENNIS. I just asked that rather sympathetic question because I couldn't see how you could get into it within the last few days.

I believe that this has nothing to do with your east coast High-Speed ground transportation, Boston to New York, and New York to Washington project.

Mr. BOYD. That is correct.

CAPITAL GRANTS TO BIG CITIES

Senator STENNIS. I notice in your statement you have been purchasing new equipment to keep transit systems alive in San Diego and you mentioned some others and particularly the San Francisco Bay area rapid transit project. Are you putting sizable sums of money into that San Francisco Bay rapid transit project?

Mr. BOYD. We have put \$52 million into the bay area system.

Senator STENNIS. Do you have any plans for any more to go into that project? I am just trying to get at the size of these things.

Mr. BOYD. Yes, sir. We expect about another \$30 million. I believe the total cost in that project is now anticipated at \$1.3 billion.

Senator STENNIS. Not all of that is Federal money, is it?

Mr. BOYD. No; we anticipate about \$82 million Federal.

Senator STENNIS. It looks to me like Urban Mass Transportation is another program that will mean if some cities have the benefit of it we will eventually have to let all cities have the benefit of it, at least to the extent of their needs.

I am just trying to get an approximation. I am one of the few that thinks the budget has run away from us. For example, I just received a note saying the Higher Education bill is coming up for a vote this afternoon. It is a very laudible purpose and I want to support it, but we did not even receive a report on it until this morning.

I don't believe the country can survive year after year after year if we just pour out money without any more real study.

AUTHORIZATION LEGISLATION

Mr. BOYD. The Urban Mass Transportation bill has been authorized by both Houses and there were rather extensive hearings on the authorizing legislation.

Senator STENNIS. I understand that. I assume the President will sign the bill.

PENDING GRANT APPLICATIONS

It has been suggested that you would not want to disclose your record here of what the prospects are for the future because that would involve a lot of trouble with your applicants.

So, you need not disclose for the record anything that has not been consummated publicly. But I wish you would give us for our files what you are planning to do for 1969 and 1970.

Mr. BOYD. We will provide you with category descriptions for both 1969 and 1970. (See page 22.)

SIZE OF COMMUNITIES ASSISTED

Senator STENNIS. Senator Cotton?

Senator COTTON. I am not quite clear on this question of research and development. I note that your grant activities are largely in the comparatively smaller cities, under 250,000 down to 100,000.

Mr. BOYD. About 40 percent of the projects.

UNIFORM METHOD OF TRANSPORTATION

Senator COTTON. I assume that the method or the most feasible method of transportation in any one city differs greatly from what would be feasible in another.

Is there any such thing as a uniform method of city transportation to apply to all the cities in the country, of a certain size?

Mr. BOYD. Mr. Hurd is the expert. He is the Deputy Administrator of the Urban Mass Transportation program. I would like him to answer that question.

Mr. HURD. Senator, I don't think there is any uniform method of transportation. Each system has to be pretty much adapted to the needs of the urban area which it serves.

Obviously, in the smaller cities, buses are the normal means of urban transportation. As you move into larger cities you get other categories such as commuter rail, rail transit, and buses as well.

NEW TRANSPORTATION CONCEPTS

Senator COTTON. That leads me into my next question. Is research and development a series of studies of individual cities and their needs and the most feasible transportation for each, or is it a general study of various forms of transportation?

Mr. BOYD. It is neither, Senator. We can talk at great length on this. I would like to give you just a few examples of what are felt to be promising areas of both research and development.

One concept is called dial-a-bus, which involves the random scheduling of buses. You could call and say, "I am at the Shoreham Hotel and I want to go to the Capitol." The dispatcher would guarantee you a bus within 5 or 10 minutes, and through communications he would dispatch a bus that was in the general area and headed in the general direction of the Capitol to pick you up.

This looks as if it has great possibility without a great increase in cost. It would dramatically change scheduling techniques.

Another concept is called personal rapid transit, which involves small single unit vehicles for one or two people that can be scheduled over exclusive rights-of-way.

Another is a dual-mode vehicle which would operate partly on streets and partly on exclusive rights-of-way.

Another is an automated dual-mode bus which would go partially on railroad tracks or subway tracks and then go onto the street to get to its final destination, or vice versa.

Then there are such things as moving belts and capsule transit systems, all of which appear to be within the area of technical feasibility.

COST OF ANTICIPATED PROJECTS

Senator COTTON. Unless you visualize this program bulging into the billions in the future, you aren't going to be in a position to contribute substantially to the problems in the huge cities of this country, are you?

Mr. BOYD. What we are trying to do in this area is to develop through research and development various kinds of systems which can serve as models, without regard to the question of who finances them.

But before New York or Boston or any other city can say, "This is the sort of transportation system we need," the city has to know what systems are technically feasible and what happens if it adopts any particular system and tries to fit it in with the existing system.

Senator COTTON. You have already said in the case of San Francisco your contemplated investment is \$82 million and the cost would be \$1.300 million?

Mr. BOYD. Yes, sir.

Senator COTTON. That is to be taken care of by the city, itself?

Mr. BOYD. And the State.

Senator COTTON. And you contemplate that general percentage, not precise but that general percentage in activities in other large cities in the country?

Mr. BOYD. Mr. Hurd says that Bay Area rapid transit system was financed largely before this program started. So, I don't know whether we can take that percentage as a standard or even a—

Senator COTTON. You mean the large cities that come in, now that they know of this program, will be reaching very hard for a larger percentage?

Mr. BOYD. We can't say now. New York State recently passed a \$2.5 billion transportation bond issue, of which 50 percent, or \$1.25 billion, is going into Urban Mass Transportation.

New York State has already requested funds for this program. But I am confident that under no set of circumstances will we come up with \$1.25 billion to match the \$1.25 billion that they will put into mass transportation.

ALTERNATIVE SOLUTIONS TO COMMUNITY PROBLEMS

Senator COTTON. In other words, do you, as Secretary, and does your Department visualize this whole program as simply a seeding of Federal money for guidance purposes for transportation facilities that are actually going to be in the main, financed in the future by the States

and cities, or do you visualize this as a growing program in which you not only will be seeding it with technical assistance and investigation but also with a fairly substantial portion of the cost of the actual system.

Mr. BOYD. It has elements of both in it, Senator. One of the things that we have been talking about as a result of the establishment of the Department is that cities have got to have reasonable alternatives. When you get to talking about reasonable alternatives you are faced with 90 percent participation in highway construction and 50 to 66½ percent participation in mass transportation.

I am not satisfied in my own mind that cities do have reasonable alternatives available to them in those circumstances.

Senator COTTON. I did not intend to say another word but I can easily see where a city of 100,000 up to 250,000 might well need the stimulus and the guidance of Federal research and development, advice about how to meet their traffic problems.

I would think a city like New York, or Philadelphia, or Chicago would be able to conduct its own research and development and decide its own system.

Will you comment on that and then I am all through.

Mr. ROBSON. I think the larger cities have a greater capability for analyzing their problems, but they require broader technical information than is currently available in order to select the best alternative solution.

We have found many gaps in technical knowledge which this Federal program has helped to fill.

Senator COTTON. Thank you.

Senator STENNIS. Thank you, Senator Cotton. Senator Pastore?

NEW AUTHORIZATION LEGISLATION

Senator PASTORE. I think we ought to preface this all by saying that you have this responsibility only because Congress enacted the law.

Mr. BOYD. Yes, sir.

Senator PASTORE. And we authorized the projects. Now, is this amount you are asking, \$230 million, the full extent of the authorization?

Mr. ROBSON. The new authorization is \$190 million. There is a carry-over authorization of \$40 million.

Senator PASTORE. It is the full amount.

Mr. BOYD. Yes, sir.

PENDING APPLICATIONS FOR GRANTS

Senator PASTORE. Of course you have had this responsibility only since July 1 and you are not maybe too familiar with the past, that is the performance of this program when it was under HUD.

But, it would be interesting for the record if we could have a list of all the unfilled applications, both in 1968 and 1969. Could we have that in the record?

Mr. BOYD. Yes, sir.

(The list follows:)

CAPITAL GRANT APPLICATIONS ON HAND, JUNE 30, 1968

Applicant and type of project	Federal aid requested	Estimated total project cost
City of Philadelphia, Pa.: Construct center city commuter railroad connection; re-habilitate 75 subway cars	\$21,750,000	\$60,000,000
City of Philadelphia, Pa.: Construct northeast and south extensions of Broad St. subway	5,000,000	98,000,000
City of Montebello, Calif.: Construct combination shop/office, warehouse, and parking area for buses; buy 10 new buses	731,596	1,100,769
City of Cincinnati, Ohio: Construct bus shelters	61,333	92,000
City of Culver City, Calif.: Buy 8 new buses; construct and equip garage; 25 fare boxes	187,452	285,389
Long Beach Public Transportation Co., California: Buy 35 new buses; construct maintenance facility	1,658,000	2,370,512
Southeastern Pennsylvania Transportation Authority: Buy 11 high-speed and 55 standard multiple-unit electric cars for rail commuter service (to be revised according to applicant)	12,670,000	19,005,000
City of Panama City, Fla.: Buy 5 new buses	67,033	101,750
State of New Jersey: Buy 40 electric commuter cars; improve electrification of line; eliminate/improve grade crossings; eliminate/improve stations on New York and Long Branch RR	20,000,000	30,000,000
City of Springfield, Mo.: Buy 16 new buses; buy and install 6 air-conditioning units	294,333	445,200
New York City Transit Authority (New York): Improvements to 49th St. station on BMT Broadway line in Manhattan	1,033,500	8,443,940
City of Topeka, Kans.: Install underground fuel storage tanks; fuel pumps; pave parking areas and driveway	8,200	16,400
City of Hoboken, N.J.: Buy 5 intracity minitype buses; tools and equipment; construct garage, maintenance, and storage building	97,500	146,250
City of Hot Springs, Ark.: Buy 10 new buses; construct garage and maintenance building	86,666	130,000
Southeastern Pennsylvania Transportation Authority: Electrify Reading RR. from Hatboro to Warminster; extend commuter service to major terminal with substantial parking.	873,333	1,323,000
City of Monroe, La.: Buy 19 new buses	263,366	399,950
Kansas City Area Transportation Authority (Kansas-Missouri): Purchase assets of 10 transit companies in KCATD; buy 30 new buses	4,271,333	6,407,000
City of Bakersfield, Calif.: Buy 11 new buses; 2 fare boxes	193,670	290,505
City of Fond du Lac, Wis.: Buy 7 new buses; construct garage	134,933	202,400
Chicago So. Suburban Mass Transit District, Illinois: Buy 130 double deck cars for rail commuter service on Illinois Central RR	24,000,000	36,000,000
Alameda-Contra Costa Transit District, California: Buy 30 new buses; 160 2-way mobile bus radios	755,333	1,133,000
City of Columbus, Ga.: Buy 29 buses; automatic bus cleaner and washer; construct paint and body shop	484,026	731,740
San Francisco Bay Area Rapid Transit District, California: 14 contracts, construction of BARTD rapid transit system	28,000,000	72,055,925
City of Sioux City, Iowa: Buy 25 new buses	400,000	668,000
City of Warren, Ohio: Buy 15 new buses, 21 used buses, and service truck; construct garage and office space; and pave and fence parking area; install fuel and oil tanks	415,279	622,219
City of Euclid, Ohio: Buy 12 new buses; construct maintenance and storage garage	1,060,667	1,591,000
City of Elgin, Ill.: Buy 12 buses; pickup truck; equipment of present bus company	234,598	351,897
Port Authority of Allegheny County, Pa.: Additional funds to complete phase I (Collier Garage) of original project (overrun due to subsurface conditions)	340,962	511,444
City of Fresno, Calif.: Buy 19 new buses; two-way radio communication; 12 bus shelters	440,079	688,118
City of Philadelphia, Pa.: Modernize 70 subway cars	350,000	525,000
City of Lafayette, La.: Pave parking area and access road; install gas pumps, washstand, and other service equipment	89,000	133,930
Twin Cities Area Metro. Transit Comm. (Mpls.-St. Paul): Buy 16 mini-type buses; 71 bus stop signs; fuel storage tank and pump	185,183	277,775
City of Rochester, N.Y.: Buy Rochester Transit Corp.; 27 new buses	3,106,667	4,660,000
Metropolitan Transportation Authority, New York, N.Y.: Buy 350 commuter cars for the Long Island RR	56,000,000	84,000,000
City of Asheville, N.C.: Buy 34 new buses; purchase land; construct storage and maintenance building; other miscellaneous equipment	877,733	1,321,600
City of Waterloo, Iowa: Buy 4 minibuses	40,000	60,000
Fort Wayne Public Transportation Corp. (Indiana): Buy Fort Wayne Transit, Inc.; buy 40 new buses	1,169,133	1,757,700

CRITERIA FOR APPROVALS

Senator PASTORE. How do you judge the merits of these grants?

Mr. ROBSON. We are presently, in connection with our assumption of responsibilities under this program, engaged in a very intensive examination of the criteria, performance standards, and kind of tests that we are going to have used in selecting projects in the face of an enor-

mously growing demand which is going to exceed present funding levels.

Senator PASTORE. The thing that bothers me about this function is that I recognize the fact, and I think you gentlemen know better than I do, one of the most serious problems is mass transportation in our cities and various communities of the country.

The only question that arises here is how far should we go in Federal responsibility, realizing the fact now that we want to trim our budget right down to the bone, and how much of this should be carried by the Federal Government and how much of it, of course, should be carried by the individual States and communities, themselves.

Now, my own State of Rhode Island for the first time has taken over mass transportation and it is paying for itself in Rhode Island, remarkably so.

Now I disagree with Mr. Cotton only in this respect, that I think I can see the function of the Federal Government in promoting uniformity in research and development so that all the cities and all the communities can have the benefit of a very broad research program.

What is disturbing to me is this capital grants for facilities. What I think we are trying to do is scoop out the ocean with a teaspoon. I think this will run into billions and billions of dollars. All you are going to do with funds of \$230 million is to make a lot of communities real mad with us.

I think we ought to keep our eye on that. San Diego, in my book, is a very prosperous city. Why we have to rehabilitate that mass transportation in San Diego is beyond me.

How do we pick out San Diego against another city? That disturbs me. How many communities are asking for this money and how many communities are getting this money? I know you are not responsible for this; we passed the law. We threw this on your back and you are struggling with it. It might be well for us to join together and find out what we are getting ourselves into because this is a multibillion situation.

There is no question about it at all. This can't be compared with Hill-Burton.

Mr. BOYD. I think we should certainly provide the committee with the criteria that have been used in approving projects and also, if we should feel differently about it, with our views on what criteria should be for the future.

FUTURE CRITERIA

Senator PASTORE. As you well know, Mr. Secretary, I have the highest respect for your stewardship and your administrative ability.

I think you ought to cooperate with Congress. I think we have bitten off a bit more than we can chew. If we are going to get in another situation where we have 1,500 cities that are looking for money and we can only provide for, say, 30 this is a program that the Federal Government should not handle because we have to treat everybody alike.

Mr. BOYD. We certainly will give you, for the record, all the thinking and the information we have on this. We will cooperate.

Senator STENNIS. I think those are very wise remarks you have made, Senator. I am glad to get the benefit of your remarks. (The information follows:)

CRITERIA FOR THE APPROVAL OF CAPITAL GRANT PROJECTS

The Urban Mass Transportation Act of 1964 initiated a program of grants to assist public agencies in providing capital facilities and improvements for use in mass transportation service in urban areas.

The purposes of the Act are—

To assist in the development of improved mass transportation facilities, equipment, techniques, and methods, with the cooperation of both public and private mass transportation companies.

To encourage the planning and establishment of areawide urban mass transportation systems needed for economical and desirable urban development, with the cooperation of both public and private mass transportation companies.

To provide assistance to State and local governments and their instrumentalities in financing such systems to be operated by public or private mass transportation companies as determined by local needs.

ELIGIBLE APPLICANTS

Only public agencies are eligible as applicants.

Private transportation companies may participate in assisted projects through contractual arrangements with a public agency.

Eligible public agencies include States; municipalities and other political subdivisions of States; public agencies and instrumentalities of one or more States, or of one or more municipalities or other political subdivisions of States; and public corporations, boards, and commissions established under State law.

ELIGIBLE PROJECTS

Eligible projects include the acquisition, construction, reconstruction or improvement of facilities and equipment for use in mass transportation service in urban areas and in coordinating such service with highway and other transportation in urban areas. Repairs, maintenance and other operating costs, the ordinary governmental or non-project operating expenses are not eligible as part of project costs.

The term "facilities and equipment" includes land (but not public highways) buses and other rolling stock, and other real or personal property needed for an efficient and coordinated mass transportation system.

The term "mass transportation" means transportation by bus or rail or other conveyance, either publicly or privately owned, serving the general public (but not including school buses or charter or sight-seeing service) and moving over prescribed routes.

The term "urban area" means any area that includes a municipality or other built up place which is appropriate for a public transportation system to serve commuters or others in the locality, taking into consideration the local patterns and trends of urban growth.

Protection of Private Transportation Companies.—Projects which involve (1) the acquisition, directly or indirectly, by a public agency, of the property of a private mass transportation company, or (2) the construction, reconstruction or improvement of property acquired from a private mass transportation company after July 9, 1964, or (3) the provision of capital improvements for use in competition with, or supplementary to, service being provided by an existing private mass transportation company, are eligible only if all the following requirements are met:

The project is found essential to a program, proposed or under active preparation, for a unified or officially coordinated urban public transportation system as part of the comprehensively planned development of the urban area.

The public transportation program is found to provide, to the maximum extent feasible, for the participation of private mass transportation companies.

Where acquisition of the franchise or property of a private mass transportation company is involved, just and adequate compensation will be paid to the extent required by State or local law.

The Secretary of Labor certifies that the requirements for the protection of employees, as described below, have been met.

Facilities and equipment already being used in mass transportation service in an urban area may be acquired only if they are part of a project that includes provision for their improvement, through modernization, extension, addition, or otherwise, in order to serve better the public transportation needs of the area.

USE OF PROJECT IMPROVEMENTS

Project facilities and equipment may be operated or used by the applicant directly, or may be leased to or otherwise operated by a private transit company under an acceptable arrangement assuring satisfactory continuing control over their operation or use. Such control may be provided by the applicant or through a State or local regulatory agency having jurisdiction and authority sufficient to assure the use of the assisted capital improvements for their intended purpose.

PROGRAM REQUIREMENTS

Prior to approval of any grant, the Secretary of Transportation is required to determine that the improvements to be assisted are needed for carrying out a program for a unified or officially coordinated public transportation system in the urban area, and are necessary for the sound, economic and desirable development of such area. The term "urban area" is defined above.

The program must be sufficiently detailed to indicate (1) the way in which mass transportation facilities which are available, or are to be made available in the future, will be coordinated so as to provide maximum service to the urban area, and (2) any needed improvements in the public transportation system, together with an estimate of their cost, a schedule of priorities, and the anticipated means of their financing. However, it is not necessary that the program set forth a specific schedule for a series of detailed projects which together would comprise the complete system for the urban area.

The program must be consistent with an adequate comprehensive plan, in existence or under active preparation, for the development of the urban area, including the basic framework of the public transportation system and highway network for the area. It must also provide for the maximum feasible participation of private enterprise, including private mass transportation companies.

If the public transportation program has not been completed, but is under active preparation, there must be a reasonable expectation that the capital improvements to be assisted will be necessary for the program, and it must be determined that there is an urgent need for the preservation or provision of such improvements.

AMOUNT OF GRANT

A grant may be made for not more than two-thirds of that part of the cost of the project which the Secretary determines cannot reasonably be financed from revenues (the "net project cost").

Where the program for a unified or officially coordinated urban transportation system is under active preparation but not yet completed, and there is a demonstrated urgent need for the project, the grant may not exceed fifty percent of the net project cost. If preparation of the program is completed within three years after the date of the grant contract, an additional grant to bring the total Federal grant up to two-thirds of the net project cost may be made.

Before a project is approved for a capital grant, there must be assurance that the required local share of the net project cost, one-third or one-half as the case may be, is or will be legally available prior to the completion of the project. The local share must be provided from non-Federal sources other than revenues included in the determination of net project cost. The local contribution must be in cash, which may include the direct contribution to the project of labor, materials, land, or other property of ascertainable value.

No refund or reduction of the amount of the required local cash contribution may be made without the refund or reduction of the amount of the Federal grant in the same proportion.

In the evaluation of capital grant applications, priority will be given to projects where the demonstrated community need is most urgent and where State and local governments have made substantial efforts to preserve or improve public transportation service in the urban area involved.

Net Project Cost.—The initial determination of net project cost will be made on the basis of estimates of total project cost and anticipated revenues, derived from engineering studies, studies of economic feasibility, and data showing the nature and extent of the expected utilization of the project facilities and equipment. The amount of the Federal grant, as initially determined on the basis of estimated net project cost, may be recomputed at the time the project is completed, to reflect any cost changes during the period of construction, within limitations which may be fixed by the Secretary.

State Limitation on Amount of Grants.—The Act provides that the aggregate amount of grants for projects in any one State (other than grants for relocation payments) shall not exceed 12½ percent of the aggregate amount of grant funds authorized to be appropriated by the Act. In the application of this limitation to a particular project, consideration will be given to known needs of other localities in the State.

AREA PLANNING AGENCY REVIEW

Projects having a substantial impact on land use are subject to the requirements of Section 204 of the Demonstration Cities and Metropolitan Development Act of 1966. This Act provides that affected general purpose governments and areawide comprehensive planning agencies must have an opportunity to review such projects.

The areawide planning agency must make a full review and prepare substantive comments only if it determines that the project has regional significance. Projects of minor regional significance may be so classified by the planning agency without further detailed comment.

If the applicant is a special purpose district, similar comments must be solicited from local general-purpose governments where project elements affecting land use are located. Other local governments need not review the application, even if the transit system operates in their areas.

If comments are not received within 60 days, the applicant may proceed without them.

RELOCATION REQUIREMENTS

Prior to approval of any project which involves displacement of families from the project area, the applicant must submit acceptable assurance that an adequate relocation program will be established for families displaced by the project and that an equal number of decent, safe, and sanitary dwellings will be available to those displaced families, in the same area or in other areas generally not less desirable in regard to public utilities, public and commercial facilities, and reasonable access to their places of employment, at rents or prices within the financial means of the displaced families.

The Act authorizes grants for relocation payments, in specified maximum amounts, to carry out an approved program for the relocation of families, individuals, business concerns, and non-profit organizations. Relocation grants are not required to be matched with local funds.

EMPLOYEE PROTECTION

Section 13(c) of the Act requires that fair and equitable arrangements be made, as determined by the Secretary of Labor, to protect the interests of employees affected by the Federal grant assistance, and that the grant contract must specify the terms and conditions of the arrangements.

LAND ACQUISITION

Section 402 of the Housing and Urban Development Act of 1965 requires that, as a condition of eligibility for financial assistance under the Urban Mass Transportation Act of 1964, the applicant shall satisfy the Secretary that it will follow certain prescribed policies in the acquisition of real estate by eminent domain.

Therefore, whenever a project requires any acquisition of land, the final application must include the following assurance:

Land Acquisition Assurance.—The applicant assures that it will:

1. Make every reasonable effort to acquire each property by negotiated purchase before instituting eminent domain proceedings against the property.
2. Not require any owner to surrender the right to possession of his property until the applicant pays, or causes to be paid, to the owner (a) the

agreed purchase price arrived at by negotiation or (b) in any case where only the amount of the payment to the owner is in dispute, not less than 75 percent of the appraised fair value as approved by the applicant and concurred in by the Department of Transportation.

3. Not require any person lawfully occupying property to surrender possession without at least 90 days' written notice from the applicant of the date on which possession will be required.

NONDISCRIMINATION IN PROGRAM BENEFITS

Title VI of the Civil Rights Act of 1964 and the Departments Regulations implementing this Title provides that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance."

AIR POLLUTION

The Secretary is required to take into consideration whether the facilities or equipment, for which Federal financial assistance is sought, will be designed and equipped to prevent and control air pollution in accordance with any criteria established for this purpose by the Secretary of Health, Education, and Welfare.

FUTURE COMMITMENT OF FUNDS

Senator STENNIS. Senator Hruska?

Senator HRUSKA. In your letter of July 9, Mr. Secretary, you spoke of the necessity to preserve the 1-year advance funding pattern and also the undesirability of being subjected to the vicissitudes of the annual budget procedure.

One angle of that has already been explored by the Senator from Rhode Island. I get to this one. Here we have a proposal, in New York for example, whereby New York will finance a \$1 $\frac{1}{4}$ billion program.

Now, your Department is going to be asked for a sum not to exceed presumably \$1 $\frac{1}{4}$ billion, and you have indicated that they probably can't count on receiving \$1 $\frac{1}{4}$ billion.

Whatever figure it is, it is going to be a substantial figure and cannot be included in any one year's allocation.

You will have to look to the future. Then you will come to this committee and say, "Here is the program for 3 or 4 or 5 years." Is that what is contemplated by way of advance commitments?

Mr. BOYD. No; the advance funding is solely for 1 year, Senator. There has been no advance commitment to any place that I know of beyond the money that was in hand.

Senator HRUSKA. For 1 year?

Mr. BOYD. Yes, sir.

Senator HRUSKA. Will that be the extent of it?

Mr. BOYD. Yes, sir.

Senator HRUSKA. New York gets \approx million dollars for its system and that is it?

Mr. BOYD. Yes, sir, for that part of the program. We certainly don't want to leave the impression that we are saying, "New York, you get \$30 million. Go away and don't come back and bother us again."

If they have another project which they think qualifies they will be back to see us and if it fits with our priorities we will approve it.

Senator HRUSKA. Of course there is an advantage in being able to sell bonds with the added help of an assurance of Federal participa-

tion, to which you have referred in your testimony. That factor would then be absent; would it not?

Mr. BOYD. No, because that is one purpose of the 1-year advance funding to give them time to arrange local financing.

Senator HRUSKA. So as far as any additional or supplemental allowance that factor is absent?

Mr. BOYD. That is correct.

Senator HRUSKA. I can see where there would be moral commitments arising, and I can anticipate now analogizing it to public works projects, the buildup of a vast reservoir of moral commitments which will raise their ugly heads to plague this committee and the Senate as well as the other body.

I just raise the point for whatever it is worth for future reference.

Mr. BOYD. Actually, as the chairman pointed out, there is not a very substantial difference in the 1969 authorization for grants and the 1970 request for grants. The major difference is in research. It would ill behoove the executive branch of the Government, without authority, to make moral commitments that would plague this committee and it will not do so as long as I am Secretary of Transportation.

Senator HRUSKA. I did not indicate that the executive would do that. We would be compatriots in crime, because those requests would come to us and we would grant them. Then they would come later and say "Ah, but this is a big system and obviously we can't get along on what we have done so far." When you lead us to that outer gate, you are morally committed, both the Congress and the Executive, to see that this job is finished. You would not want all this good money squandered.

That is how the argument would go and therein lies the basis for a moral commitment.

Mr. BOYD. I would possibly have to stand corrected on this but my belief is, based on some knowledge of the way HUD has operated the program, that each project approved has been complete within itself.

This does not necessarily mean that there could not be additional projects expanding and enlarging the original project, but in order to prevent the possibility of the city saying, "Well, now, you gave us half a loaf, where is the other half?"; what HUD has tried to do, and I think successfully, is to say, "This is the project, this is what we are approving, and this has to stand on its own."

So you would not have this moral commitment problem.

FEDERAL AID TO AIRPORTS

Senator HRUSKA. Where Federal moneys were allowed for building airports, the amounts available were very, very small. My recollection is that many of the large communities in the metropolitan areas just did not bother with the Federal allocation because it was too small and too burdensome to administer, so they went into it all by themselves.

Is there any analogy between that situation and this?

Mr. BOYD. I don't have the same understanding that you do, Senator. One of the things that has led me to be very critical of the present Federal aid to airports program is that airports like O'Hare in Chicago can come in and dip their hands in the till of the limited

amount of Federal aid money, and they have done it because they say, "It is there, we are entitled to it, so we are going to get it."

Senator HRUSKA. Miami did not do it that way, did it? My understanding is that Miami did it pretty well all alone.

Mr. BOYD. Miami has gotten all the money they could out of FAA. Now there may have been instances when Miami could not get money granted in a particular year, so they then utilized their lease agreements with the air carriers. But they have had applications in consistently since this program started for everything they could get.

CRITERIA FOR URBAN MASS TRANSPORTATION GRANTS

Senator HRUSKA. I understand you will furnish us with some of the criteria by which you are guided in making selections?

Mr. BOYD. Yes, sir.

Senator HRUSKA. That will be very fine for the record.

Mr. BOYD. Yes, sir.

LETTER FROM SECRETARY WEAVER

Senator STENNIS. I have another item. Without objection, there will be placed in the record at this point, a letter from Secretary Weaver of HUD to Senator Magnuson, related to certain comments appearing in the Committee Report on the Independent Offices Appropriations bill.

(The letter follows:)

THE SECRETARY OF HOUSING AND URBAN DEVELOPMENT,
Washington, D.C., July 10, 1968.

HON. WARREN G. MAGNUSON,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MAGNUSON: This is in reference to the concern expressed by the Senate Committee on Appropriations relating to the division of responsibility between this Department and the Department of Transportation under Reorganization Plan No. 2 of 1968, and the Committee's desire that the intent of the Plan be achieved and duplication of effort between the two Departments avoided.

The Reorganization Plan reserves to this Department "the authority to make grants for or undertake such projects or activities under sections 6(a), 9, and 11 of that Act (49 U.S.C. 1605(a); 1607a; 1607c) as primarily concern the relationship of urban transportation systems to the comprehensively planned development of urban areas, or the role of transportation planning in overall urban planning . . ." The projects under sections 6(a), 9, and 11 are concerned with research, development, and systems studies.

Pursuant to discussion and agreement between the two Departments, 62 projects approved before June 30, 1968, under the authority of sections 6 and 9 have been identified for retention in HUD for contract administration and close-out. Of these, 28 are contracts entered into in connection with the recently completed study of new systems of urban transportation, with regard to which HUD has agreed to handle the close-out and audit of these projects for which contractor work has been completed in virtually all cases. As you know, this study was a one-time undertaking and a report of its findings and recommendations has already been transmitted to the Congress.

Three additional projects in the group to be retained by HUD are also completed and will require only close-out and audit activity. The remaining 31 projects were assigned for continued HUD supervision, administration, and close-out pursuant to discussion and agreement between HUD and DOT officials as falling within the prescribed area of HUD responsibility as set forth in the Plan.

In cases where there was a joint interest in a particular project, the Departments agreed on the area of primary interest, with HUD retaining administra-

tion of 10 contracts where there was a joint interest and a HUD primary interest; and DOT assuming administration of 34 contracts of joint interest and a DOT primary interest. In these cases, the final decisions will rest with the Department of primary interest and the Department of subsidiary interest will be consulted with regard to the acceptability of the final project report. The purpose of this arrangement is to assure that there is clear responsibility for the conduct of the work and the administration of the contracts involved; to make certain that the interests and requirements of both Departments are adequately considered and served by the work; and that there is no duplication of effort in connection with these studies.

All of the other active projects approved and undertaken under the authority of the Urban Mass Transportation Act are being transferred to DOT. This includes all loan and capital grant projects and authority, as well as some 111 projects under sections 6, 9 and 11 falling within the DOT area of interest, (including the 34 mentioned above where there is a subsidiary HUD interest).

We expect the Director of the Bureau of the Budget to issue a Determination Order within the next few days, to be effective as of July 1, 1968, completing these transfers.

Our efforts in developing arrangements for administering activities in which both this Department and the Department of Transportation have a concern has been to keep the lines of responsibility and authority clear and to arrange for close coordination to avoid confusion or overlapping in carrying out these mutually beneficial arrangements. Secretary Boyd and I have designated program and administrative staff to work together in meeting this objective both in connection with the transfer and, on a continuing basis, to develop implementing methods for assuring this.

Please let me know if we can supply any additional information that would be helpful to you.

Sincerely yours,

ROBERT C. WEAVER.

QUESTIONS SUBMITTED BY SENATOR ALLOTT

Senator STENNIS. Now we have some questions here that came from Senator Allott. They have already been submitted to the Secretary and the answers supplied in advance because of the urgency of the time.

So, without objection, I will put the Senator's questions and the Secretary's answers in the record at this point.

(The questions and answers follow:)

Question No. 1: It has come to the attention of this Committee that when the Urban Mass Transportation Administration was established in DOT on July 1, 1968, HUD opened an "Office of Transportation" which retained 54 project files which the UTA had been working on while it was a part of HUD. Please explain to the Committee what criteria were used to determine which project files should be handled by which office?

Answer: Under the terms of Reorganization Plan No. 2, the Department of Housing and Urban Development retained authority to make grants and undertake projects under sections 6(a), 9, and 11 of the UMT Act which concerned primarily "the relationship of urban transportation systems to the comprehensively planned development of urban areas, or the role of transportation planning in overall urban planning." Using this criterion, DOT and HUD representatives reviewed all of the project files and agreed that some 50 of them involving about \$3 million should appropriately be retained in HUD. In general the projects moved to DOT are those more closely technically oriented to hardware R&D, and operational demonstrations of novel transportation systems or techniques. Some of the active project applications have multiple purposes and in these cases responsibility was assigned to the agency with a predominate interest. A few projects which were close to completion were not included in the transfer chiefly as a matter of administrative convenience.

Question No. 2: Does the Department feel that it would be desirable and useful for the Urban Mass Transportation Administration to conduct research, development and demonstration projects in such areas as the dual mode bus, the articulated bus, modern subway surface cars, wheel and rail grinder equipment for

rail car maintenance, skybus, automatic fare collection electric buses and storage battery vehicles?

Answer: Yes. These are all worthy areas for research, development and demonstration. The timing and magnitude of projects must, of course, be a function of total program priorities and funding levels. In three areas, the skybus, automatic fare collection, and storage battery vehicles, we are already doing some work.

Question No. 3: Please describe the work being conducted by the Office of High Speed Ground Transportation in the areas of tunneling capability and linear electric motor development. What do you envision in the future? What relationship do you feel this work may have to urban transportation?

Answer: Research conducted by the Office of High Speed Ground Transportation is concentrated in three major areas: rock fracture, liners and supports, and tunnel driving systems. As part of our rock fracture work, we have research projects in lasers, hypervelocity fluid jets, chemical agents, and light gas gun impact. In liners, the University of Illinois is conducting an extensive study into new materials, designs and construction techniques. In systems research, we have just completed a feasibility and conceptual design study of the use of flame jets for tunnel driving. In the near future, we intend to initiate studies of new and unique methods for tunneling in soft ground, and for augmenting the drilling capabilities of large boring machine (moles) by use of lasers and chemical agents to weaken rock. It has been estimated that 2,000 miles of tunnels will be built between now and 1990. If costs of tunneling can be reduced to one-half of that at present, \$2.3 billion can be saved. This presents a most worthwhile target for research.

Development and fabrication of a 2500 h.p. linear induction motor is now under contract with the AiResearch Manufacturing Company, a subsidiary of Garrett Corporation. Associated with this development is also the design and fabrication of a LIM Research Test Vehicle to be operated on a steelrail guideway at speeds up to 200 miles per hour. The complete LIM Test Vehicle will be available for track tests by April 1969. Additional studies are now underway to determine improvements that can be incorporated in future LIM's for use with the tracked air cushion vehicle in 1971 for speeds up to 300 miles per hour.

In addition, the Urban Mass Transportation Administration has undertaken research, development and demonstration programs in tunneling. A recently published report, *Tunneling: The State of the Art*, is a worldwide survey of the latest techniques in tunneling technology. Advancement in the technology of tunneling is of great importance to urban transportation, both because there is a growing need to locate portions of the system underground and also because of the serious disruption which cut-and-fill methods of underground construction cause to urban life.

Tunneling research has equal applicability to urban and intercity systems, the only difference being in the added complexity of intercity systems due to tunnel depth and length and speed of travel.

The linear induction motor designed for the speed range employed in urban transportation 60 to 100 miles per hour may have application to such use to reduce noise from normal rotary tractor systems and can readily be adapted to an automated speed controlled urban transportation system. The use of a linear induction motor reduces the problem of adhesion for acceleration and deceleration.

Question No. 4: Considering the existence of HUD's new "Office of Transportation", what is the purpose of the Urban Mass Transit Administration conducting programs which relate to ghetto oriented transportation?

Answer: A principal function of urban mass transportation is to provide mobility for persons who lack access to an automobile and cannot afford taxis. These persons include not only the poor who live in ghettos, but also the non-ghetto poor, nondrivers, the elderly no longer able to drive, the handicapped, the below driving age and the housewife without a car at home.

To understand the transportation needs of these groups so that transportation systems can be improved and new systems developed to satisfy them better, the UMTA must conduct programs which relate to the various problem areas, such as the ghetto's transportation difficulties. The DOT role is to help develop be solved, and to identify specific types of transportation systems or services which can meet these problems. HUD is, of course, concerned with the urban area's structure and arrangement of land uses so they can be altered to reduce or eliminate transportation difficulties experienced by ghetto residents, and about the effect of various transportation changes on urban life. The activities of the

two Departments must, of course, be carefully coordinated in this and the many other areas of common interest concerned with the interaction of transportation and the city. This we intend to accomplish to the best of our ability.

Question No. 5: Is the Department still asking the Senate to consider an additional \$15 Million for urban transit for FY 1969?

Answer: Neither HUD nor DOT has asked for the additional \$15 Million for FY 1969.

Question No. 6: Will all of this \$15 Million be used for studies and demonstrations and none for capital grants?

Answer: See answer to number 5, above.

Question No. 7: Has the present skybus test track been transferred to your jurisdiction?

Answer: Yes. This project is now under DOT jurisdiction. The demonstration project is in its second phase, devoted to testing of track and vehicle switching techniques and improvement of automatic and safety controls.

Question No. 8: Considering the fact that the Urban Transit Administration (while in HUD) spent over \$1 Million for development of a skybus test track in Pittsburgh, what is the justification for consideration of constructing another test track in Baltimore at a cost of \$2 Million?

Answer: No proposal has been presented to us for a skybus test track in Baltimore. Baltimore representatives of the agencies interested in the possibility of such a track for Baltimore have discussed it informally with UMTA staff. We have not attempted to evaluate the matter or given any encouragement to submission of a formal proposal. A proposal if received will be considered on its merits, and particularly in relation to the facility already in existence in Pittsburgh.

Question No. 9: In view of "compatibility" regulations which apply to mass transit equipment within a metropolitan area, would it not be desirable for the Baltimore metropolitan area to plan its rapid transit system so that it will be compatible with the one being planned for the Washington metropolitan area?

Answer: Each system is being developed on the basis of service requirements in the two areas. The requirements in Baltimore and Washington differ, as evidenced by plans for greater use of subways in Washington. Baltimore proposes to build a rubber-tired transit system which will offer substantial operational savings, based on projected demand.

Officials of the two systems are cooperating in the development of both short and long-range plans. The systems may meet in Laurel and planners are considering a cross-platform transfer there. Both systems plan stations to tie directly into High Speed Northeast Corridor lines. Officials from Prince Georges and Montgomery Counties have worked with Baltimore officials in proposing rapid transit financing methods to the Maryland State legislature. Moreover, staffs of the two systems engage in continuing technical conversation.

High-speed service provided by the Penn-Central is expected to meet any anticipated inter-city travel demand between Baltimore and Washington.

Question No. 10: It has been reported that while the Urban Transit Administration was in HUD, verbal commitments were made to SEPTA with regard to Federal assistance for the proposed mid-city tunnel. Do you consider such commitments, if ever made, binding on the Department of Transportation and what is the status of this project?

Answer: I know of no verbal commitment made to SEPTA or the City of Philadelphia to provide Federal assistance for the proposed mid-city tunnel, and I am sure that no such commitments have been made by any responsible official in the Department of Transportation. We are aware of the project, however, and believe it has high priority in the development of a comprehensive transportation system for the region. There are, however, two problems with the proposal as it now stands:

First, a complaint has been received from the Philadelphia Suburban Transportation Company, a major private transportation operator serving the Philadelphia area, claiming that it will be seriously injured by the improved competitive service position of the Penn-Central resulting from the mid-city tunnel. SEPTA denies that there will be any substantial adverse affect on Philadelphia Suburban. This issue comes within the "private enterprise" protection of Section 3(c) of the Act which requires that certain determinations be made before the grant can be approved.

Second, the grant application has been referred to the Department of Labor for determination of the fair and equitable arrangements necessary to protect

the interests of employees who may be affected by the Federal assistance, as required by Section 13(c) of the Act. The Department of Labor has initiated negotiations among the City, SEPTA and the labor organizations representing transit employees in the Philadelphia area to provide a basis for its determinations and certification to us.

Once these problems have been settled we will be in a position to approve the project.

Question No. 11: How much money does the Urban Mass Transportation Administration expect to contribute toward the financing of the Washington subway system?

Answer: The financing plan of this system, as approved by Congress in 1965, authorized a \$431 Million project basically within the District of Columbia to be financed by \$150 Million in Federal and D.C. appropriations and the balance with revenue bonds of the operating authority.

To date there has been no financial commitment of any type by UMTA to this system. It has been anticipated that the portion within D.C. would be financed by direct Federal appropriations, while the suburban portions would be financed by local bond issues which would provide matching funds for Federal urban mass transit grants.

At the present time, the WMATA is still working on a definite financial plan beyond the \$431 Million initial portion of the system.

Question No. 12: Why was the application of the Delaware River Port Authority for Federal funds to construct its new high speed line denied?

Answer: This application, filed in April of 1966, was for a grant of \$18 Million to assist in financing an extension of the Delaware River Port Authority's Camden-Philadelphia rapid transit line from Camden to Lindenwold.

Approval of the application has not yet been possible because of a problem that arose in meeting the employee protection requirements of the Urban Mass Transportation Act. This problem concerned expected competition of the extended line with existing bus routes of the Public Service Coordinated Transport, Inc.

The Authority was advised by its bond counsel that the contingent liability for compensation to employers of the private company could jeopardize the sale of bonds to be issued for the Authority's portion of construction cost.

In June of 1967 HUD approved an \$80,000 technical study grant to the Authority to determine the feasibility and effects converting the private company's line haul bus service to a feed service coordinated with the new rapid transit extension.

The results of this study are expected to provide a basis for evaluating the effects of the Authority's rapid transit line on the bus company's operations, which should facilitate the necessary determination of employee protective arrangements required by Section 13(c) of the Act.

Question No. 13: At a time when air pollution is of great concern to us all, why did the UTA approve a grant to replace electric buses with diesel buses in Seattle, despite the heated objections of some segments of the Seattle community including the Society of Professional Engineers?

Answer: The Seattle Transit System has received a capital grant in the amount of \$3.2 million to assist in the purchase of 70 new diesel buses and to make other improvements. It is planned to convert the remaining trolley-coach lines in the city to diesel bus operation. The basic decision as to the kind of mass transportation system which will best serve an urban area is locally determined.

Since electric coaches are no longer being manufactured (none have been built since 1952 except for 43 units in 1955), they would be extremely costly to build and maintain. There is also the question of old electrical distribution systems, such as substations, which are costly to operate.

The inflexibility of trolley-coaches makes route changes and extensions difficult and expensive. A number of route changes which should benefit riders are contemplated as a result of the buses obtained under this grant.

As part of any capital grant for buses, UMTA requires certification that HEW criterias to pollution control must be met, which has been done by Seattle.

While it is true that new diesel buses will contribute somewhat to air pollution, effect of the substitution of diesel for trolley buses is expected to provide greater overall benefits to the public. In other cities, such as Pittsburgh and Dallas, previous grants have been used to substitute diesel buses for trolley cars or coaches with generally beneficial results.

Question No. 14: Why has money for the Central Area Subway report in Boston been held up?

Answer: The Massachusetts Bay Transportation Authority submitted an application for a technical study of the Central Area Subway on May 27, 1968. Its late

submission precluded funding of the project with fiscal year 1968 funds. The application for \$442,767 in Federal funds is now under active review by the Urban Mass Transportation Administration.

CAPITAL GRANTS TO PRIVATE COMPANIES

Senator STENNIS. Since you gentlemen inherited this so recently, I really think we should have an accounting from those who have been handling the money up until now.

You gentlemen did not handle the past money, so you are not responsible. But Congress does have a rather rigid rule on that. I don't know any way of meeting it at this time, though. I assume that none of this money is paid by you directly to the privately owned utilities in any city for carrying out this transportation.

Mr. BOYD. Up to now the law has prohibited dealing with any but public agencies.

Senator STENNIS. That is a good provision of the law, don't you think?

Mr. BOYD. Generally speaking, I think it is. I might like to urge some exceptions on the Congress in the future, but generally speaking, I think it is a good provision.

Senator STENNIS. What about the present new authorization act? Did they change that point?

Mr. BOYD. No, sir; it is the same.

Senator STENNIS. It takes strong proof but you might have certain circumstances where you would be justified. From my experience and observation of those putting out money to private agencies you quickly run into trouble.

HISTORY OF URBAN MASS TRANSPORTATION LEGISLATION

Senator STENNIS. Now, I want to know something more about the history of this legislation. What was the stated purpose of this grant in the beginning? I know how these matters grow. Where can we get a terse statement, Mr. Secretary, of the purpose of this act in the beginning?

Mr. BOYD. I think the section entitled "Background" in my long statement will provide this, Mr. Chairman.

Senator STENNIS. You think it covers that?

Mr. BOYD. It covers it pretty well.

Senator STENNIS. We have had little bills that start out with a few hundred million dollars, and they end up in the billion dollar and \$2 billion and \$4 billion class. I believe that is about all I had in mind.

Senator COTTON, do you have something further?

Senator COTTON. I think not, Mr. Chairman. I won't take any more time.

Senator STENNIS. Senator Hruska?

Senator HRUSKA. I think not, Mr. Chairman.

ADMINISTRATIVE EXPENSES FOR 1969

Senator STENNIS. I have a further question. What resources are to be made available and from what sources for your administrative expenses during fiscal year 1969?

Mr. DEAN. Mr. Chairman, as a result of the determination order, which the Director of the Bureau of the Budget has just signed and which is available to the committee, 38 positions out of the 46 direct program positions associated with this effort in HUD have been moved to the Department of Transportation. We also are receiving an appropriate share of the administrative money, which the determination order sets at \$703,000.

Senator STENNIS. Thirty-eight out of how many?

Mr. DEAN. Forty-six, sir.

Senator STENNIS. You have a net reduction there of eight?

Mr. DEAN. That is correct, because of certain residual functions remaining in HUD.

Senator STENNIS. It is not really a reduction, it means that eight positions are still in HUD. That is more accurate; is it not?

Mr. DEAN. Yes, sir. I might say that these manpower figures are simply those that were in effect in the 1968 fiscal year, and do not reflect efforts on the part of the Department of Transportation to determine exactly what will be required in 1969.

WATTS TRANSPORTATION PROBLEMS

Senator STENNIS. Going back to the history of mass transportation, I heard this matter discussed a little or something akin to it, with reference to the problem in the Watts section in Los Angeles where they had civil disorders.

Mr. BOYD. Yes, sir.

Senator STENNIS. The point was that there was no local transportation available to the people that live there to carry them out to a place where they might find a job.

I thought that was a very good point. It would be a great mistake to think that I am against everything that way that would help the poor people, as the civil rights proponents allege.

I thought that was a splendid idea to get those transportation utilities in there. Is there anything like that involved in this bill? I thought this is what your grants were for, to quickly supply a need like that.

OTHER TRANSPORTATION PROJECTS FOR DISADVANTAGED

Mr. BOYD. We expect to have some additional demonstration projects of that type in our future funding.

Senator STENNIS. Do you have any so far?

Mr. HURD. Yes, sir. We have a project at St. Louis. We have another one, strangely enough, on Long Island, where there are some sizable poverty areas and some industrial parks that the people in these areas have not been able to get to. We have one in Nashville involving access to medical facilities which have been decentralized out of the central city area.

Senator STENNIS. It seems to me that demonstration projects there would be quite helpful in those parts of the country.

Mr. HURD. That is what these are, sir.

Senator STENNIS. I am glad for us to get into this Urban Transportation. I know you are concerned about this, Mr. Secretary, hav-

ing inherited it so recently. I know in the process of your discussion with me you mentioned two cities that are concerned and I will not call their names here. But one thing that impressed me was that they are two of the most prosperous cities in the United States according to my estimates.

One in the West and the other is in my area of the country. I know there is fine prosperity and tremendous new growth there which has been going on for years.

Mr. BOYD. I should have mentioned Florida to you and given you a better example, Mr. Chairman.

FEDERAL HIGHWAY ADMINISTRATION AMENDMENT ON LIMITATIONS ON
GENERAL EXPENSES

Senator STENNIS. I have an unrelated matter dealing with the Federal Highway Administration. There will be put in the record the Secretary's letter of July 12, 1968, transmitting the proposed amendment to the House bill affecting the limitation on general expenses for the Federal Highway Administration which is a technical amendment would comply with the requirements of pending substantive legislation by identifying as a line item the amount of the total authorization which may be used for payment to agencies other than the Bureau of Public Roads.

That is just a technical matter.

Mr. BOYD. Yes, sir.

(The letter and amendment follows:)

THE SECRETARY OF TRANSPORTATION,
Washington, D.C., July 12, 1968.

Hon. JOHN STENNIS,
Chairman, Subcommittee on Transportation, Committee on Appropriations, U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Subsequent to the submission of my letter of July 6, 1968, requesting Senate amendment of certain House approved provisions in the Department of Transportation Appropriation Act, 1969, a matter has come to my attention about which I feel you should be advised. Specifically, House action on authorizing legislation for the Federal-Aid Highway Act of 1968 has made it necessary that we request the addition of clarifying language in the Appropriation Act covering the Limitation on General Expenses.

The Federal-Aid Highway Act as passed by the House contains a proviso which would preclude the payment of administrative expenses from the Highway Trust Fund of any Federal agency other than the Bureau of Public Roads unless the amount to be used for this purpose is set forth as a line item in the Appropriation Act.

The budget program of the Federal Highway Administration, now under consideration by your Committee, provides for payments from the trust fund to finance a number of essential services provided to the Bureau of Public Roads by the consolidated staff offices of the Federal Highway Administrator. These services include, among others, such vital administrative functions as payroll, accounting, personnel activities, and legal services.

Furthermore, this proviso in the authorizing legislation would appear to apply to activities carried out under provisions of the Economy Act including such essential activities as the provision of health units by the Public Health Service and security investigations carried out by the Civil Service Commission.

The proposed amendment to the appropriation language, as set forth in the enclosed request, would comply with the requirements of the pending substantive legislation by identifying, as a line item, the amount of the total authorization which may be used for payment to agencies other than the Bureau of Public Roads.

This proposed language merely specifies that portion of the general expense limitation that is to be available for administrative expenses. It is not a request for any additional authorization under the limitation, and does not represent any departure from existing practices for the funding of the administrative expenses in the Federal Highway Administration.

Your favorable consideration of this proposal is respectfully requested.

Sincerely,

ALAN S. BOYD.

Enclosure.

FEDERAL HIGHWAY ADMINISTRATION—LIMITATION ON GENERAL EXPENSES (TRANSFER FROM HIGHWAY TRUST FUND) (HOUSE HEARINGS, PP. 336, 344-345, 377-411, 491-498)

Page 9 line 6 of H.R. 18188:

1968 appropriation	\$59,927,000
1969 budget estimate	68,186,000
Increase (+) or decrease (-) 1969 estimate over 1968 appropriation	+8,259,000
1969 House allowance	65,556,000
House reduction from 1969 estimate	-2,630,000
Restoration requested	0

AMENDMENTS REQUESTED

Page 9 line 16, insert the following:

Of the total amount made available during the current fiscal year for administration, operation, and research expenses of the Federal-aid highway programs, \$12,718,000 shall be available for support and services furnished by elements of the Federal Highway Administration other than the Bureau of Public Roads and by other Federal agencies.

HOUSE REPORT

This limitation provides for the administration of the Federal Highway Programs and for carrying on highway research. Funds for administration are deducted from the Federal-aid authorizations. Section 104 of Title 23 authorizes the use of not to exceed 3¼% of the annual authorizations for the purpose of administration. The request for fiscal 1969 is approximately 1.3% of the authorization and is well below the amount authorized for such purposes. Expenses for administration of the Federal Highway Administration and the Bureau of Public Roads not otherwise provided for are funded through the means of this limitation.

The sum recommended is \$5,629,000 more than the amount allocated for fiscal year 1968. Of this amount, \$3,000,000 reflects an increase in the contract research program for traffic operations. The request for the contract program for traffic operations is \$4,515,000 as compared with the \$1,000,000 appropriated for fiscal 1968. The Committee recommends the provision of \$4,000,000 for this purpose, a reduction of \$515,000 in the estimate. The traffic operations program involves three demonstration programs, a Freeway Ramp Merging Control System, an Electronic Route Guidance System and Flow Sensing and Surveillance. The Committee believes that the \$4,000,000 allowed will be sufficient to carry out the demonstration programs as required in fiscal 1969.

The \$14,000 increase in travel funds for the Office of Engineering and Operations is denied.

The Committee has not allowed the \$2,001,000 requested increased for the Office of Research and Development. This Office was allocated \$12,197,000 in 1968 and requested \$14,198,000 in 1969. The Committee believes that the essential program can be accomplished with the same amount as was provided last year.

The Committee also recommends deletion of \$100,000 and the appropriation language permitting the use of up to \$100,000 for assistance to other American Republics on Highway matters. It seems that this program has been continued for 30 or 40 years. When the value of the program was questioned in the hearings, the Committee was not supplied with sufficient concrete justification for continuance of the program to warrant support in the present austere budgetary situation. It would seem that if the program is needed, it should be a part of the Foreign Assistance Program.

JUSTIFICATION

The authorization for the Federal Highway Program contained in the pending Federal Highway Act of 1968, as passed by the House, includes a provision which would prohibit the use of any funds appropriated from the Trust Fund for administrative expenses of any Federal agency other than the Bureau of Public Roads unless funds for such expenditures are identified and included as a line item in an Appropriation Act. The proviso reads as follows:

"(g) No funds authorized to be appropriated from the Highway Trust Fund shall be used to pay the administrative expenses of any Federal department, agency, or instrumentality other than the Bureau of Public Roads, or any other department, agency, or instrumentality established by law, Executive Order, or otherwise, either by transfer of funds, reassignment of personnel or activities, contract, or otherwise, unless funds for such expenditure are identified and included as a line item in an appropriation Act and are to meet obligations of the United States heretofore or hereafter incurred under title 23 of the United States Code which are attributable to the construction of Federal-aid highways or planning, research, or development in connection therewith."

If this proviso is enacted into law, it would not permit the use of trust funds to pay a proportionate share to support the office of the Federal Highway Administrator or the staff advisory and management services provided by centralized offices within the Federal Highway Administration. In addition it appears to prohibit the use of trust funds to obtain the services of other agencies under Section 601 of the Economy Act (31 U.S.C. 686). This would preclude the use of highway trust funds for such activities as health units provided by the Public Health Service, the collection and tabulation of statistical data by the Census Bureau, research projects by the Bureau of Standards and audit services furnished by the Army Audit Agency.

The proposed insertion in the appropriation language for the limitation on General Expenses is intended to comply with the requirements of this proviso by identifying as a line item the amount included in the Budget estimate for Support of FHWA and an estimate of the total amounts to be obligated for services of other agencies under provisions of the Economy Act. The amount shown is made up of \$11,468,000, the amount set forth in the Budget estimate for Support of FHWA, and \$1,250,000 for services of other Federal agencies.

The addition of this language does not increase the amount made available under the limitation for administrative and research expenses but merely identifies an amount within the total which may be expended for obtaining services which can be provided by other agencies.

CONCLUSION OF HEARING

Senator STENNIS. Thank you very much for being here, Mr. Secretary. All right, the hearing is concluded.

(Whereupon, at 2:25 p.m., Monday, July 15, the hearing was concluded and the subcommittee recessed to reconvene at the call of the Chair.)



