HIGHWAY ASSISTANCE PROGRAMS: A HISTORICAL PERSPECTIVE

The Congress of the United States
Congressional Budget Office
In 1978 the Congress will face important highway legislation. Authorizations for most federal highway programs expire at the end of fiscal year 1978; the major exception is the Interstate System. In addition, the Highway Trust Fund, the mechanism through which most federal highway assistance has been financed for the past two decades, is scheduled to expire at the end of fiscal year 1979. Thus, the questions of new authorizations and financing method must both be addressed in order to continue most highway programs beyond 1979.

The Congressional Budget Office has prepared this Background Paper, Highway Assistance Programs: A Historical Perspective, at the request of the Senate Budget Committee. The paper gives a comprehensive description of the history of federal support for highways, particularly since the 1956 legislation that established the Highway Trust Fund and authorized major federal assistance for the Interstate Highway program. The rationale underlying the present highway program and the way that program has been modified over the past two decades will be important ingredients in the debate over future highway legislation. In keeping with CBO's mandate to provide objective analysis of issues before the Congress, this report offers no recommendations.

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Director

January 1978
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SUMMARY

In 1978, the Congress will consider important highway legislation. Federal aid for the limited-access Interstate System is the only major highway program authorized beyond fiscal year 1978. Most other highway programs will require new authorizing legislation for fiscal year 1979 and beyond. Furthermore, the program financing mechanism for almost all federal highway aid, the Highway Trust Fund, is currently scheduled to expire at the end of fiscal year 1979. This expiration would affect the Interstate System as well as those non-Interstate programs that are also funded from the Highway Trust Fund. At present, about 90 percent of federal assistance to highway programs is financed through the Trust Fund. Thus, issues related to both new authorizations and financing method must be addressed in order to continue most highway programs beyond 1979.

Federal involvement in highway programs has a long history. Several elements of current federal highway policy have remained unchanged for 60 years or more. The present financing mechanism has been in place for 20 years, albeit with considerable alteration of detail. Thus, a review of past legislation is a key to understanding both the existing highway program and some of the pressures to change that program. This paper gives a chronological survey of the federal highway legislation, concentrating on the formation and evolution of the Highway Trust Fund. This summary highlights the major characteristics of previous highway legislation and identifies trends in program specification and funding.

ELEMENTS OF FEDERAL POLICY

The federal government has played a significant, continuing role in highway development since early in this century. The Federal-Aid Road Act of 1916 provided the basic building blocks for federal assistance in highway construction. Several elements of federal policy that were established at that time continue to be embodied in present-day programs, especially:

- The federal-state relationship, whereby federal assistance is channeled through state highway departments that take direct responsibility for implementation;
o A federal-state matching ratio, whereby the state must participate directly in program funding;

o Distribution of funds among the states by an apportionment formula, originally based on area, population, and road mileage.

Other elements evolved during the decades leading up to the mid-1950s, including:

o System designation, whereby federal aid has to be expended on a coordinated and connected network of roads;

o Imposition of federal excise taxes on fuel, along with other federal taxes related to highway use (early receipts went into the general fund and were only loosely linked to highway expenditures);

o Financial support for planning, for research and development, and occasionally for specific studies requested in legislation.

THE HIGHWAY TRUST FUND

A major juncture in federal involvement came in 1956, when the Highway Trust Fund was established. In the mid-1950s, there was considerable agreement about the need for an expanded highway program because of the rapid growth in vehicle registration and traffic levels, the wartime deferral of highway programs, and civil defense needs. A consensus about the method of financing an expanded program, however, proved difficult to achieve. Bonds, tolls, and general revenue funding sources were widely debated. Despite the incumbent Eisenhower Administration's commitment to fiscal restraint, the original proposal of the Administration involved the issuing of off-budget bonds that would be serviced from existing tax sources.

Extensive testimony on the Eisenhower proposal was taken in committee, and eventually the Congress enacted the 1956 legislation. The Federal-Aid Highway Act of 1956 accelerated the pace of highway construction through expanded federal assistance. In particular, a separate funding category was established for the Interstate System to allow prompt completion of the system, and long-term authorizations for Interstate construction were provided on an annual basis over a 13-year period (previously, two-year authorizations had been normal).

The key feature of the 1956 legislation was the financing package. In the Highway Revenue Act, the Congress evolved a funding method very
different from that originally proposed. Some existing excise taxes, such as those on motor fuel and tires, were increased, and some new taxes were imposed, particularly the use tax on heavy trucks. These excise taxes, which were related to highway use and to ownership of highway vehicles, were channeled into the newly created Highway Trust Fund and dedicated to federal highway programs. The main thrust of the legislation was to create a closed, assured mechanism of highway assistance in order to assure completion of the Interstate System over a definite period of time. The Trust Fund was scheduled to expire with the expected completion of the Interstate System.

Not all highway-related taxes were put into the Trust Fund, however, and not all federal assistance for highway construction was financed from the Trust Fund. For example, the already existing 10 percent excise tax on new autos was not treated as a user charge and it continued to flow into the general fund. The programs that continued to be financed from general funds were primarily for developmental and recreational access to public lands such as national parks and forests and Indian reservations, though some of these roads also served as links in the designated federal-aid systems. Nevertheless, in 1958, about 95 percent of highway authorizations were financed from the Highway Trust Fund.

Informal linkage between fuel tax receipts and highway programs had existed in the past, inasmuch as the Congress had long used fuel tax revenues as a benchmark to determine highway authorizations, but creation of the Highway Trust Fund imposed official, statutory dedication. The dedication concept arose rather late in the legislative process leading to the 1956 act. It served two important purposes:

- It provided a long-term funding source against which the Interstate System could be planned and completed;
- It reassured highway users that aid programs would be expanded and thereby weakened resistance to the accompanying increases in highway-related taxes.

The existence of the Trust Fund and its dedicated receipts makes highway funding more reliable, but the Trust Fund is simply an accounting device—it does not constitute the federal highway program.

The 1956 legislation made two declarations of policy regarding the Trust Fund. First, the total receipts and total expenditures should be balanced. A related restriction, known as the Byrd Amendment, required that the amounts available in the Trust Fund should be sufficient to defray highway expenditures in each year. The second policy declaration was that
the distribution of the tax burden among various classes of highway users should be approximately proportional to the costs attributable to them.

Three broad categories of highway programs can be identified in the aftermath of the 1956 legislation:

- Construction of the Interstate System, funded through the Highway Trust Fund with a 90 percent federal share;
- Construction of the three traditional systems—that is, the primary, secondary, and urban extension systems, which are known as the ABC systems—funded through the Highway Trust Fund with a 50 percent federal share; and
- Other construction-oriented highway assistance programs, funded from general funds.

EVOLOUTION OF FEDERAL ASSISTANCE

Almost every feature of the highway programs and the financing provisions in the 1956 act has undergone at least some modification over the past two decades. Federal-aid systems have been redefined and new ones introduced; new program categories have been created; matching ratios have changed; the excise taxes going into the Trust Fund have been increased and other taxes included; programs that were formerly financed from the general fund have been financed from the Trust Fund; and the scope of qualifying expenditures has been substantially broadened. Yet, despite the changes that have occurred, the highway program still resembles that of 1956, and the Trust Fund still receives a large stream of revenue primarily designated for highway construction programs.

Finance and Taxation

Changes in the finance and taxation aspects of the Highway Trust Fund were made almost immediately after the Fund was created. Highway spending was used as an antirecession weapon of federal fiscal policy in the late 1950s through higher program levels, a higher federal share, and the suspension of the no-deficit provision of the Byrd Amendment in fiscal years 1959 and 1960. This temporarily broke the closed relationship of use-related tax receipts to program levels, although the relationship was reestablished in the early 1960s by a combination of reduced authorizations and increased tax levels. Later, during the Nixon Administration, the relationship of tax receipts to program levels was broken in the opposite direction through the
impoundment of highway funds; program levels were held below what was authorized and could be financed from Trust Fund receipts, resulting in the accumulation of a surplus balance in the Fund.

Taxation. Escalation in the costs of the Interstate System soon required higher program levels if completion of the system was to be assured within the time frame established. The estimated cost of the entire Interstate System rose from $27 billion in 1956 to about $41 billion in 1958, and it reached $89 billion in 1975, just before the most recent highway act. The prime cause for the increases has been cost inflation, but added mileage, design changes, relocation payments, and other factors have also been important. The most recent estimate, submitted to the Congress in 1977, indicated a total cost of $104 billion, with $40 billion being the estimate to complete the remainder.

Higher program levels in turn required additional revenue to sustain the financial integrity of the Trust Fund. In the face of escalating program costs and the real possibility that Interstate funding would have to be curtailed, the tax on motor fuels was increased "temporarily" in the late 1950s to four cents a gallon, and the auto excise tax was scheduled to be put into the Trust Fund. As cost estimates for the Interstate System continued to climb, however, it became clear that permanent increases in Trust Fund receipts were required to sustain the program. Thus, the increased fuel tax was made permanent at four cents in the mid-1960s. Also, the remaining highway-related excise taxes, excepting the automobile excise tax, were transferred into the Highway Trust Fund and dedicated to federal highway assistance. The excise tax on passenger cars never went into the Trust Fund; it remained in the general fund and was eventually repealed in 1971.

The list of excise taxes accruing to the Trust Fund and their rate levels have been stable since the mid-1960s, except that the excise tax on lightweight trucks was repealed in 1971 at the same time as that on passenger vehicles. The revenues generated, however, have increased steadily with greater highway use, slowing only in the mid-1970s as a result of the critical problems regarding energy. The Highway Trust Fund has thus allowed and even encouraged a growing federal highway program.

As costs for completion of the Interstate continued to escalate, and with all highway-related taxes in the Trust Fund and no sentiment for raising tax rates, the completion date began to be moved out in time. The duration of the Trust Fund has also been extended several times, although the completion date for the Interstate System and its accompanying authorizations have often been extended without simultaneous action to extend the Trust Fund and its tax revenues. In part, this reflects the fact that revenue changes required action by the House and Senate revenue-
raising committees which have not always chosen to ratify the extended Interstate authorizations approved by the Public Works Committees. At present, the Interstate program has a long-term authorization to 1990, but the Trust Fund expires at the end of 1979.

Cost Allocation to Trucks. At the time that tax rates were being increased in 1961, a debate arose over the distribution of the tax burden among user classes. The Kennedy Administration proposed much heavier taxes on trucks. In the studies mandated by the 1956 act, several competing allocation methods were presented. Although all the methods showed that, based on the tax rates set in 1956, trucks were underpaying, no resolution emerged concerning the proper cost allocation to trucks. The Congress decided to increase truck taxes a moderate amount. More important, whereas in the past only one-half of the excise tax on new trucks was dedicated to the Trust Fund, now the whole tax was dedicated. This increased the contribution of trucks to highway-dedicated funds without changing substantially the amount actually levied.

More recent highway cost allocation studies show that diesel-powered trucks and heavier trucks in general are still underpaying. Further rate increases have been proposed for heavy trucks, but they have not been enacted. On a related issue, size and weight restrictions on vehicles using the Interstate System have been liberalized, potentially increasing the cost burden that might properly be allocated to trucks.

Program Features

Federal-State Relationship. The federal-state relationship has remained basically unchanged. Projects are initiated and constructed by state highway departments (usually under contract) subject to federal standards and approval by the Secretary of Transportation. As the number of specific-purpose programs has grown, however, federal influence over spending has increased. Moreover, when the Department of Transportation was formed in 1966, the Secretary was instructed to develop standards and criteria for federal investment in transportation facilities. Despite this growth of the federal role, the Federal-Aid Highway Act of 1973 reaffirmed that the highway program is a federally assisted state program, that is, the states should determine which projects will be federally financed.

Federal Share. Apart from the introduction of a 90 percent federal share on Interstate System projects at the outset of the Highway Trust Fund, there has been only one major change in matching ratios over the past two decades. That was the increase from 50 to 70 percent in the federal share.
for most non-interstate projects contained in the 1970 act and effective from fiscal year 1974 onward. (In certain states the federal share is increased substantially above the norm because of exceptions for public lands acreage.)

Apportionment. The apportionment of federal highway funds among the states continues to be based largely on the traditional apportionment formulas for the three ABC systems coupled with completion costs for the Interstate system. (The traditional formulas include factors for area, population, and road mileage.) Significant changes in apportionment practices began in 1970 and took two forms. First, changing system designations resulted in changed apportionment formulas. For example, the introduction of an urban system (known as the D system) in 1970 carried with it a new formula based entirely on population of the urbanized area. Later, when program coverage was expanded, this formula was amended to include population for all urban areas of more than 5,000 population. Other changes in system coverage have resulted in adjustment of the population factor used to apportion funds. Second, minimum bounds have been set on apportionments for the important programs. The most important minimum is the guaranteed apportionment of 0.5 percent of Interstate System funds to each state; this was introduced in the 1970 act (effective fiscal year 1972) and has continued to date. Although these funds were originally a temporary measure to soften the impact of decreased funds as the Interstate System was completed, in recent years they have been made transferable to other programs and have required increased authorizations.

Qualifying Uses for Federal Assistance

As highway assistance expanded, the projects that qualified for federal aid gradually encompassed more than construction alone. In fact, federal funds have been authorized (or required) for some nonconstruction uses since the time of the 1956 act. For example, relocation payments were qualified for federal aid, and planning funds, which had qualified for aid since 1934, were required to be used for that purpose and could not be transferred to construction uses. Since 1973, some public transportation projects have qualified; these uses are discussed separately below. Generally, these new uses have been financed from the Trust Fund.

The definition of "construction" has been gradually broadened to include more resurfacing and reconstruction activities. This has somewhat weakened the traditional distinction between federal aid for construction and state responsibility for maintenance. The Federal-Aid Highway Act of 1976 made the greatest change of this sort when it qualified resurfacing, restoration, and rehabilitation of portions of the Interstate System for federal assistance and financed these activities from the Trust Fund.

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Other expenditures related to the federal-aid system have gradually been qualified for federal assistance and Trust Fund financing. Most prominent among these are expenditures on highway safety programs. Although these programs were originally financed from the general fund, they have been transferred to the Trust Fund. Forest and public lands highways that serve as links in the federal-aid system have had federal assistance for some time, but this aid now comes from the Highway Trust Fund. Generally, these changes reflect a trend toward providing federal assistance for most, if not all, nonmaintenance expenditures on the federal-aid highway system, and toward financing this aid from the Highway Trust Fund.

Social Concerns. A number of social concerns are evident in the rapid broadening of the focus of highway legislation and spending in the late 1960s. A variety of urban development problems together with a reaction to some adverse effects of urban renewal programs (especially dislocation) stimulated vocal, antagonistic opposition to certain highway programs. As a result the programs were reexamined. Many new program categories were added, including urban traffic projects, expanded relocation assistance, and a new federal-aid system for urban arterials. Rural problems also forced some reevaluation of programs. Safety and beautification programs grew in number. Highway planners were mandated to consider social and environmental impacts in addition to economic ones.

The Urban Controversy

The evolution of highway programs in terms of broader, more flexible uses for Trust Fund expenditures is most clearly exemplified by the results of the confrontation between mass transit advocates and highway supporters. The problems of the cities in the late 1960s and early 1970s were often attributed to the predominance of highway interests and the ready availability of highway assistance from the Trust Fund. Also, the dedication of the Trust Fund to highways was attacked.

Highway legislation responded to urban problems in two ways. The first was to direct more assistance for urban roads and traffic improvements, including legislative attempts to force construction of delayed urban Interstate segments. The second was to broaden the potential application of highway funds for substitute, public transit uses. Attention to public transit began with the early "continuing, comprehensive, cooperative" (CCC) planning regulations in 1962, and financial aid was extended by provisions for fringe parking lots to serve carpools and bus patrons in 1968. The Federal-Aid Highway Act of 1970 incorporated further highway-related...
transit uses, such as exclusive bus lanes and other non-rail public transportation facilities, that were allowed as substitutes for new urban highway facilities.

In 1973, the substitution of mass transportation projects (including rail systems) for unwanted, withdrawn segments of urban Interstates was permitted. These substitute projects, however, were financed from general revenues. Funds for the urban highway system (D system), which was established in 1970, could also be used for transit projects at local option, though the amount transferred has been small to date. Further, additional funding solely for public transportation aid was included as one title of the 1973 act. On the whole, these provisions did not substantially reduce the funds available for highway assistance, but they did markedly increase the assistance level for transit projects. These provisions for substitution of transit projects were further refined and liberalized in the 1976 act.

Program Categories and Transferability

In the mid-to-late 1960s, a major set of highway beautification and safety programs were authorized. Expenditures were made to control billboards and junkyards, and to improve roadside landscaping. In addition, a large program of development highways was authorized for the Appalachian region. These programs were originally financed from general funds, though safety programs are now financed from the Trust Fund.

These new programs represent the first wave of major proliferation in categorical programs that took place in the late 1960s and early 1970s. Fifty-five separate authorizations for highway-related projects were made for fiscal year 1974. In addition to the beautification and safety programs, new projects were authorized for economic development growth centers (predominantly rural in nature), bridge safety, rail grade crossings, scenic highways, hazardous locations, and removal of roadside obstacles. Most recently, a program to resurface older Interstate segments was introduced. The trend has been to finance the new program categories from the Highway Trust Fund, for example, 38 of the 55 programs authorized for 1974 were financed from the Trust Fund. Moreover, several previously existing programs, such as forest highways, have been transferred to the Trust Fund. In spite of this numerical trend, the level of general fund financing has increased as a proportion of all highway programs, primarily because of spending for the Appalachian Development Highway System. The newest major program for safer off-system roads is also financed from general funds.

As a part of this tendency toward program proliferation, a sizable number of location-specific projects have been authorized, generally as
demonstration projects. This represents a change from the thrust of earlier highway legislation; in the past, generalized programs were financed and specific projects avoided. The demonstration projects for rail crossings are a good example of location-specific projects put forward in recent highway acts.

Running somewhat counter to this trend of proliferating, specified programs has been the substantial increase in the allowable transfer of funds between programs. Transfers between the three traditional highway programs—primary, secondary, and urban extensions—have been allowed for some time, and the proportion of funds allowed to be transferred has now been increased to 40 percent for many programs. Unwanted Interstate segments can now be withdrawn from the designated system, and either transit or other highway projects can be substituted. Transferability between safety programs has been increased in recent years, and a few programs have been consolidated. Thus, although a listing of program categories would make it appear that the application of funds is strictly prescribed, the transfer provisions allow a substantial amount of locally directed flexibility. Nonetheless, the net effect of these various trends has been to increase the number of local restrictions compared with the highway programs of 15 or 20 years ago.

THE ISSUES OF TOMORROW

The current highway program is characterized by considerable flexibility among a large number of categorical authorizations that are financed predominantly from the Highway Trust Fund. Qualifying applications for federal assistance have been broadened considerably to include not only highway construction but also resurfacing and other "non-maintenance" tasks on all federal-aid systems. Further, public transportation uses can be substituted fairly liberally, and in some cases they are financed from the Highway Trust Fund.

The impending expiration of both the authorizing legislation for most highway programs other than the Interstate System and the financing mechanism itself (that is, the Highway Trust Fund) suggests that the following issues will be considered by the Congress:

- Should the highway program authorizations be renewed at current levels or increased? Or, should the level of assistance authorized be reduced or eliminated?

- Should the financing mechanism embodied in the Highway Trust Fund be continued? (The Fund is now used to finance about 90
percent of program authorizations.) Or, should the Trust Fund be allowed to expire, thus transferring the financing burden for all programs to the general fund? Or should the highway financing mechanism be combined in some way with the mechanisms used for other transportation modes?

- Should the existing highway-related excise taxes, whether deposited into the Trust Fund or the general fund, be continued at current rates or increased? Or, should the scheduled reductions be allowed to take place?

- Should the matching ratio for federal and state contributions be increased, continued at the current 70 percent contribution, or reduced?

- Should the distribution of the tax burden be modified toward higher levies on heavy trucks, reflecting more closely the results of the cost allocation studies? Or, should the current tax structure be maintained? Or, should private auto levies be increased?

These issues are among those that the Congress may be asked to determine this fiscal year. CBO intends to address several of these issues in future reports.
INTRODUCTION

The federal government has played a significant role in the development of highways in the United States since early in the twentieth century. Of particular importance has been the Highway Trust Fund, which was formed in 1956 as a mechanism for long-term financing of highway programs and which has continued in importance as the assistance programs evolved. The Trust Fund, however, is scheduled to expire at the end of fiscal year 1979.

This paper provides background on federal assistance programs for highway transportation. It attempts to identify the important programs and the details of their financing. The paper focuses on the formation of the Highway Trust Fund and the changes since it was established. This background and identification of recent trends should be useful when the Congress considers the future of highway programs and the Trust Fund itself.

Before 1916, federal programs for highways were virtually nonexistent. In 1916, however, legislation containing many of the basic elements of the current program was enacted. These elements were refined by subsequent legislation and new elements were acquired in stages over the next 40 years. In the mid-1950s, a case was built for an expanded highway program by means of special studies and commission reports. Then, in 1956, the Congress enacted the legislation establishing the Highway Trust Fund. The subsequent sections of this chapter describe the buildup to the 1956 legislation.

Chapter II concentrates on the legislative decisions in 1956. It notes the underlying rationale for Trust Fund financing, the nature and sources of tax revenues received by the Trust Fund, and the restrictions placed on the uses of the Trust Fund. The chapter attempts to identify the details of the funding and the Congressional intent or determination behind those details.

Chapter III treats the major changes in federal highway assistance since 1956. It describes the effort to transfer more tax receipts into the Trust Fund and identifies the uses made of these revenues during the period
from 1956 to the present. It discusses the rationale put forward for modifying the Trust Fund mechanism. The chapter also examines the attacks on the Trust Fund in the 1970s and the use of the Trust Fund to support mass transit.

Finally, Chapter IV summarizes the financial aspects of federal assistance to highways since 1956. The chapter briefly treats the authorizations for highway programs, the obligations incurred, and the outlays or actual expenditures.

The paper is primarily a descriptive, historical document. It attempts to link developments and changes in highway programs and the use of the Trust Fund to the extent that a coherent policy shift is identifiable. A forthcoming background paper by the Congressional Budget Office will identify and analyze the principal alternative mechanisms that are available for financing various modes of transportation.

FEDERAL AID BEFORE 1956

The federal role in highway construction dates back to the earliest days of the republic, but this role was not constant or significant until 1916. Prior to the twentieth century, post roads had been established and improved, the Cumberland road was constructed, and federal assistance in what might be termed demonstration projects was undertaken. Some beginnings of the present program of federal aid were visible in 1912 when a small amount of direct matching aid (one-third federal share) was made available for construction and improvement of post roads, but very little mileage was in fact completed because few states raised the required matching funds.

The Early Years

The 1916 Act. The Federal-Aid Road Act of 1916 provided the basic document for federal policy. Many of its provisions have continued to this day, though they have undergone frequent amendments. The 1916 act established the following elements which continue to be basic to federal policy:

- The requirement for a state highway department;
- The federal-state relationship, whereby the construction, ownership, and maintenance of highways were the responsibility of the states;
o The federal-state matching ratio of 50:50 to obtain federal funds, which persisted intact until 1954 (and for some time thereafter for parts of the program) and which stimulated the imposition of state gasoline taxes to generate the matching funds; and

o An apportionment formula, whereby each state’s share of total federal funds was based on area, population, and post-road mileage. 1/

System Designation (1921). The Federal Highway Act of 1921 included an important provision not found in the 1916 act. The 1916 act had failed to require that federal-aid funds be spent on a designated system of interconnected roads. The 1921 act required the state to designate a system and gave preference to those projects among the candidates for federal aid that would complete an adequate and connected system of interstate highways. This was to avoid the haphazard development of roads. The routes so designated formed the basis for what became known as the federal-aid primary system.

Contract Authority (1921-1922). An important feature of Congressional funding provisions for highway programs evolved from the Federal Highway Act of 1921 and the Post Office Appropriation Act of 1922. These acts gave the Secretary of Agriculture the authority to approve projects and, most important, translated such approval into a contractual obligation of the federal government. The 1921 act required the Secretary of Treasury to set aside and then pay amounts certified by the Secretary of Agriculture on approved projects. The 1922 act provided:

That the Secretary of Agriculture shall act upon projects submitted to him . . . and his approval of any such project shall be deemed a contractual obligation of the Federal Government. 2/

This legislation essentially granted budget authority in the form of contract authority prior to an appropriations act. This form of budget

1/ Apportionment refers to the legislatively prescribed division of federal funds among the various states. A lump sum is authorized, then apportioned to the states by formula.

2/ 42 Stat. 660. At the time of this legislation in 1922, federal activity regarding highways was administered by the Bureau of Public Roads within the Department of Agriculture.
authority has continued to be a characteristic of highway programs. Once
the amount authorized has been apportioned and projects approved, the
states can obligate funds and then apply for reimbursement through
liquidating appropriations. This effectively insulates major parts of the
highway program from review and oversight by the Appropriations
Committees of the Congress. Liquidating appropriations are made later to
reimburse state highway agencies for federal obligations already incurred.
(Commitments for highway programs were thus not dependent on the normal
appropriations process even before the Highway Trust Fund was established.)

The 1930s

A number of legislative changes affecting highways were made in the
1930s, and during this decade the list of basic elements that are embodied in
the current federal highway policy was completed. These additional
elements are a federal fuel tax, the federal support of state planning, and
the statutory request for reports to the Congress.

Fuel Tax. The Revenue Act of 1932 established an excise tax of one
cent a gallon on motor fuels. This tax was to go into the general fund.
Although motor fuel tax receipts were not formally dedicated to highway
programs until the Highway Trust Fund was established in 1956, considerable
evidence suggests that even in the 1930s the level of highway programs was
closely related to the level of federal receipts. Indeed, the Hayden-
Cartwright Act of 1934 declared:

...it is unfair and unjust to tax motor-vehicle transportation
unless the proceeds of such taxation are applied to the
construction, improvement, or maintenance of highways. 3/

This provision is still codified in Section 126 of Title 23, U.S. Code, although
the 1934 act itself applied the principle only to state receipts from taxation
of motor vehicles.

This close relationship can be seen from a comparison of program
authorizations and federal receipts for the period 1932 to 1939. During
these early years of gasoline taxation, direct authorizations for highway
programs totaled $2.0 billion. 4/ For the same eight-year period motor fuel

4/ National Transportation Policy (Doyle Report), Report prepared for the
and oil taxes netted federal receipts of $1.6 billion, and total highway-related federal receipts, including taxes on vehicles and auto products, were $2.2 billion. If automobile excise taxes are deleted from the receipts total (such taxes have never been dedicated in the Highway Trust Fund), then the federal receipts come to approximately $1.9 billion, compared with the $2.0 billion authorized for highway programs.

The highway program in the 1930s included some emergency, countercyclical authorizations for highway construction, but many programs related to the Depression (such as projects of the Public Works Administration) would not be included in the direct highway authorizations. Other countercyclical measures adopted during the 1930s include temporary waiver of the state's matching share and the extension of federal aid to secondary or feeder roads (both included in the National Industrial Recovery Act of 1933).

Planning and Research and Development. The Hayden-Cartwright Act of 1934 authorized up to 1.5 percent of each state's highway funds (with state matching provisions) for planning and surveys toward future construction projects. Originally, the planning was not required, and the funds could be used for construction at state option. Over the years, the plans and surveys funded in this manner have strengthened the basis of program development.

Reports to the Congress. Highway legislation has often required that the appropriate administrative agency submit studies or reports to the Congress. A particularly important request was made in the Federal-Aid Highway Act of 1938. The report that resulted from this request advocated the construction of a comprehensive system of free highways with strict controls on the access to the right-of-way. The 26,700-mile system recommended in this report provided the original concept behind today's Interstate System. The report, entitled Toll Roads and Free Roads, was submitted in 1939; it was subsequently reviewed and revised several times during the war years. 5/ These further surveys, especially those directed in the Federal-Aid Highway Amendments of 1943, provided the planning base for the Interstate System and set the stage for its official authorization as a system in the following year. An ensuing report, entitled Interregional Highways, proposed a controlled-access network of about 39,000 miles. 6/

5/ House Documents, Volume 20, Number 272, 76:1 (1939).
The 1940s and Early 1950s

The Federal-Aid Highway Act of 1944 provided greatly expanded funding and established separate, proportional authorizations for three categories of highways—the primary system, the secondary system, and the urban extensions of the primary system—which became known as the ABC programs. The proportions authorized for each system—45 percent for the primary system, 30 percent for the secondary system, and 25 percent for the urban extensions—remained constant until 1974. Somewhat different apportionment formulas were established for each of the ABC programs.

The designation of what we now know as the Interstate System was authorized in the 1944 act, with the length now stipulated at 40,000 miles. This designation was made in 1947, but progress on construction was slow. No specific authorizations or apportionments of funds were made to the Interstate System, because it was incorporated in the primary road network and its urban extensions. Further, since the matching ratio remained 50:50, there was no financial incentive for the states to give priority to construction of the Interstate System.

Legislation in the years immediately before the pivotal Federal-Aid Highway Act of 1956 provided further developments, including:

- Under the Revenue Act of 1951, the imposition of an excise tax of 2 cents a gallon on diesel fuel;
- In the Federal-Aid Highway Act of 1952, specific, separate authorization of $25 million a year for the Interstate System, apportioned by the formula for the primary system;
- In the Federal-Aid Highway Act of 1954, a major increase in the authorization for the Interstate System to $175 million a year, apportioned by a new formula more heavily weighted by population, with an increase in the federal share for the Interstate to 60 percent (the first change in a matching ratio since the 1916 act);
- Also in the 1954 act, allowance for the transfer of up to 10 percent of the ABC funds among the three system categories;
- Again in the 1954 act, a significant boost in the level of research support.
These shifts in the highway program were all small but important. They were the response of the Congress to a mounting postwar problem of congestion and highway deterioration. Moreover, the research on highway needs that was performed as a result of the 1954 act became a critical input into the deliberations about the 1956 act.

BUILDING THE CASE FOR AN EXPANDED HIGHWAY PROGRAM

During World War II, highway construction and maintenance had largely been deferred, and automobile and truck manufacturing for the civilian market had virtually ceased. The postwar period brought a booming market in automobiles and trucks. Also, construction of suburban housing expanded rapidly, aided by government-guaranteed VA and FHA mortgages. As highway traffic became greater and as trucking expanded, the wartime deferments became more burdensome. Even the increased levels for highway programs proved inadequate as construction costs escalated. The growth in economic activity during the Korean War years and the concerns about civil defense in the emerging nuclear age created further support for accelerated highway construction.

The Clay Committee Report (1955)

In mid-1954, President Eisenhower put forward a proposal for a vastly expanded program of federal aid for highways. Then in September of that year, the President established a President's Advisory Committee on a National Highway Program which was chaired by Lucius D. Clay and became known as the Clay Committee. The Clay Committee was to look into the President's proposal and, in general, make recommendations for federal assistance toward the provision of adequate highways. The committee issued its report, A Ten-Year National Highway Program, A Report to the President, in January 1955. Two general topics were covered: first, the inadequacy of current highways and the need for a greatly expanded program; and second, specific recommendations about how to finance an expanded program.

Several reports on highways and proposals for a new system had been published in previous years. These included 1939 and 1955 reports on toll

7/ "The President's Highway Proposal" (speech delivered to the Governor's Conference, Lake George, New York, July 1954.)
roads, the wartime studies by the Federal Coordinator of Transportation and
the Public Roads Administration, and a 1944 report on interregional
highways. Although these earlier studies provided much of the groundwork
for the Clay Committee, it was the proposal of the committee, which was
brought forward as a legislative proposal by the Eisenhower Administration,
that stimulated the highway legislation of 1956 and resulted in the formation
of the Highway Trust Fund.

The committee offered four basic lines of argument to justify an
expanded highway program:

- Traffic growth and congestion in the face of accelerating
  population growth rates;
- Civil defense needs, particularly the need to evacuate people from
  cities;
- Highway deterioration resulting from increased traffic and,
  particularly, increased weight and axle loadings, magnified by the
  moratorium on construction during World War II.
- Safety and accident statistics that favored upgraded, limited-
  access highways.

The committee adopted the tentative conclusions and estimates of
the Highway Needs Study that had been mandated by the 1954 act and was
being prepared by the Bureau of Public Roads. The preliminary estimates of
this study showed that the highway program required overall expenditures of
$101 billion over a 10-year period. The committee projected that—given the
existing tax structure and other highway revenue sources, and allowing for
growth in vehicles and usage—$47 billion would be available for
construction. This revenue figure includes nonfederal sources; total
estimated federal tax receipts for the period amounted to only $29 billion.
Financing the $54 billion gap was the purpose of the recommendations
presented in the Clay Committee report.

The committee proposed that the federal government assume primary
responsibility for the development of the Interstate System and its urban
extensions, providing about 90 percent of the anticipated $27 billion in
construction costs. The 90 percent federal share was based on the
committee's desire to keep the state contribution at approximately the same
level that would have been required to match the $175 million authorized by
the 1954 act for the Interstate System in 1956 and 1957. If adopted, the cost to the federal government for the Interstate System alone would be $2.5 billion a year.

Another recommendation of the committee was that the federal contributions for the remainder of the federal-aid program be continued at the rates authorized by the 1954 act: approximately $525 million a year for primary and secondary programs; about $75 million a year for urban programs; and about $22.5 million a year for forest highways. Funds for public land roads would also be continued, but this responsibility would be transferred to other federal agencies. The regular programs would thus require approximately $623 million a year in federal aid.

Finally, the committee proposed the creation of a Federal Highway Corporation that would issue bonds to finance the accelerated completion of the Interstate System. The bonds would be serviced and retired using receipts from federal taxes on gasoline and lubricating oils (after the $623 million a year for regular programs was first covered). The existing 2-cent tax on motor fuels plus the 6-cent tax on lubricating oils were projected to be adequate to retire the bonds issued for a 10-year construction program—generally assuming maturities of 20 years at an interest rate of 3 percent. Thus, the proposal was to borrow funds for present construction and then employ user-related tax receipts accruing in the future to retire the debt.

The report refers only to gasoline taxes, although the tabulations presented appear to incorporate receipts from all motor fuels, including diesel and other special fuels. No reference is made to other highway-related revenue sources already in place at that time such as excise taxes on automobiles, trucks, and buses.

Two interesting sidelights on the committee report bear mentioning. First, although the committee avoided calling for a dedicated trust fund, it specifically compared construction costs to gasoline and oil tax receipts over the period and suggested a contract between the proposed Federal Highway Corporation and the Treasury Department for annual amounts approximately equivalent to federal tax receipts on gasoline and lubricating oils.

Second, the committee specifically discussed and rejected tolls as a method of financing the Interstate System. It pointed out that plans for several thousand miles of toll roads had been drawn up that would coincide with the proposed Interstate System. But it also noted that studies disclosed that some portion, apparently about 10 to 20 percent, of the proposed
mileage would not be economically feasible under a toll road method. Thus, "toll financing on a sound financial basis" could meet only a portion of the needed Interstate System. The committee concluded that neither toll road financing nor state financing would be adequate for the Interstate System as it should be constructed, and that the additional federal support was thus needed.

Debate over the Clay Committee Proposal and Other Events Leading to the 1956 Highway Act

Extensive hearings focused on the Clay Committee proposals for the National Highway Program were held by the Committee on Public Works in both the House and the Senate during 1955. Few objections were raised to the proposed expansion of highway construction. Traffic growth, congestion, and the need for improved facilities seemed to create virtually unanimous support for an expanded highway program. As George M. Humphrey, the Secretary of the Treasury, said at one hearing, "Everyone wants roads—more and better roads." 8/ Or, as Congressman John J. Dempsey of New Mexico said in discussing the various financing provisions, "I would vote for any bill at this time that would give us roads." 9/

Several aspects of the proposal were, however, strongly criticized during the 1955 hearings. Major objections were raised, for example, to the following five points:

- The high interest cost (approximately $11.5 billion) required to finance the bonding proposal. This reflected a general objection to debt financing versus a pay-as-you-build method supported by Senator Harry Byrd of Virginia.
- The overwhelming federal role implied by a 90 percent share and final approval rights on the location of the Interstate routes.
- The lack of Congressional review and the off-budget, off-debt-limit nature of the financing proposed by the Clay Committee.


9/ Ibid., p. 1106.
This led Senator Byrd to say that the committee's proposals would "destroy sound budgetary procedure." 10/

- The implied ceiling on the growth of the regular (ABC) federal-aid programs, which were credited with a fixed amount in current dollars from the existing tax revenues.

- A generally conservative reaction to the overall funding proposal, which was relatively innovative insofar as it created off-budget debt, proposed informal earmarking of highway tax revenue, and stretched the burden over about 32 years.

General Clay in his testimony tended to support the highway program provisions more strongly than the financing provisions. With respect to the financing provisions, however, he argued that the bonding proposal was more conservative than adding to the national debt and that informally dedicating the highway taxes to service the bond issue was substantially different from using general revenues to service the national debt. These arguments were attacked frequently, and numerous questions arose regarding the revenue-bond nature of the proposal and the federal government's obligation under this corporate structure.

The Congress made little progress toward the enactment of an expanded highway program in 1955. The Administration's bill (H.R. 4260), which incorporated the Clay Committee proposal, was delayed in getting to the Congress and met with little success there. The Senate did pass a bill (the Gore Bill; S. 1048) along fairly traditional highway bill lines. The House considered several bills but was unable to pass any of them.

One of the House bills (H.R. 7072) was put forward by Congressman George H. Fallon of Maryland, the ranking majority member of the House Public Works Committee, who presided at the 1955 hearings. The Fallon bill contained sharp increases in the traditional highway taxes and an even more notable jump in truck taxes—a 6-cent tax on diesel fuel and a 50-cents-per-pound tax on large tires. This bill was a substitute for the Clay proposal and would have relied on current user taxes, not bonds, to finance the expanded program. The proposed higher truck taxes were also a clear attempt to jar the resistance of trucking interest groups who continued to oppose any highway-related taxes at all.

Although the Congress had considered highway matters extensively in 1955, it had not enacted new legislation. The Administration's proposals, and especially the bonding provisions, had met with resistance, but so had alternative proposals that relied on increased gasoline and other highway-related taxes for financing. The case for more and better roads had been made, and the 1956 session of the 84th Congress brought a compromise on the financing issues. The compromise included the establishment of the Highway Trust Fund.

THE 1956 LEGISLATION

The House Bill. The House acted promptly in the 1956 session, considering two separate but complementary bills (H.R. 8836 and H.R. 9075). One of these bills contained the tax provisions, and it was assigned to the Committee on Ways and Means. After hearings and committee approval, the two bills were joined as two titles of a single bill (H.R. 10660), which was introduced, reported, and passed in a period of nine days. The bill provided long-term (13-year) authorizations for the Interstate System, and it increased tax levels related to highway use. The bill also incorporated controversial provisions ensuring the payment of prevailing wage levels for highway construction; these were known as Davis-Bacon provisions. The taxes were designed to raise sufficient revenue from new and existing highway user taxes to approximately match estimated federal highway expenditure. 1/

The House bill also provided that all of the newly imposed taxes along with some existing taxes be placed in a special Highway Trust Fund.

The Senate Bill. The Senate considered the House bill sequentially: first, Title I was referred to the Committee on Public Works and then, after

that committee reported, Title II was referred to the Committee on Finance. The Senate had passed the Gore Bill in 1955 and insisted on retaining its basic provisions. Although the Senate bill incorporated long-term authorizations for the Interstate System, it differed from the House bill on several points:

- On the apportionment formula for the Interstate System, the Senate bill adopted a variant of the primary system formula, whereas the formula in the House bill involved estimated cost of completing the system in each state;

- On the level of authorization for the ABC programs, the Senate bill was higher;

- On size and weight restrictions for vehicles, the Senate bill proscribed increases in state limitations above the standards of the American Association of State Highway Officials for dimensions and total weights (apparently for all public highway mileage), whereas the House bill restricted only axle loadings on the Interstate System;

- On Davis-Bacon wage provisions, the Senate bill did not include them. 2/

The financing provisions were referred to Senator Byrd's Committee on Finance where strong resistance developed to the feature of deficit financing in the early years of the Trust Fund. This led to insistence on a "pay-as-you-build" program which was incorporated into the Byrd Amendment. The amendment provided that apportionments would be limited "to give assurance that no deficit will develop in the highway trust fund." 3/ Other differences specified that additional taxes were for highway use only, omitted the mass transit tax exemption, and imposed a different use-tax schedule on heavy vehicles.

Passage. The Senate bill was debated and passed on May 29, 1956. The House did not agree to the Senate amendments and a conference was held. In conference, the House accepted the Byrd Amendment, restricting

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the highway program to a pay-as-you-build pattern of expenditures. Otherwise, the provisions of the House bill were generally accepted. Major points of the final legislation are discussed below. The conference report was submitted and agreed to on June 26, 1956, in both the House and the Senate, and the act was signed by the President and became law (P.L. 627) three days later. 4/

The Federal-Aid Highway Act of 1956 (Title I)

The 1956 act kept the highway assistance programs essentially separate from the financing mechanism; federal aid for highway programs was provided in Title I of the act. Although there had been no Highway Trust Fund before the 1956 legislation, there had been an on-going program of federal assistance for highway construction. Title I of the 1956 act simply expanded the federal role and in particular boosted support for the Interstate System.

The basic elements of the federal-aid highway program were all in place before the 1956 legislation, although many modifications were made at this time. These elements—together with the year they were established—can be categorized as follows:

- Federal-state relationship (1916);
- State highway departments (1916);
- Matching ratios and apportionment by formula (1916);
- System designation (1921);
- Contract authority (1921-1922);
- Motor fuel taxes (1932);
- Planning, research, and development (1934);
- Reports to the Congress (1938).

The primary focus of Title I of the 1956 act was to expedite completion of the Interstate System and in general to accelerate all federal highway aid, including assistance to the ABC programs.

Interstate Provisions. The Interstate System, which had been authorized as a system in the 1944 act and designated as a system in 1947, was increased to 41,000 miles and was specified for an accelerated completion over a 13-year period through 1969 (Section 108 of the 1956 act). Two features of special note were incorporated in the 1956 act.

First, substantially increased authorizations for the entire 13-year period were incorporated in the legislation. The Interstate System had received its first specific funding authorization in the Federal-Aid Highway Act of 1952. The early authorizations (fiscal years 1953-1955) were at a level of only $25 million a year. The 1954 act increased the Interstate authorization to $175 million for the next two years (fiscal years 1956 and 1957). The 1956 act then authorized an additional $1.0 billion for fiscal year 1957 and gradually increasing amounts for the subsequent 12 years. Thus, the authorized program level for the Interstate System jumped from $25 million in 1955 to $1,175 million in 1957. The new authorizations totaled almost $25 billion, sufficient to pay the federal share of the $27 billion projected cost.

Second, the federal-state matching ratio for the Interstate System was changed. The traditional matching ratio of 50 percent federal and 50 percent state had been uniformly applied to all the various system classifications until 1954. In 1954, the federal share for the Interstate System was increased to 60 percent. The 1956 act further encouraged early completion of the Interstate System by providing for a 90 percent federal share (except for public land provisions for all federal-aid programs that could increase the federal share in some states to a ceiling of 95 percent).

ABC Systems. The primary, secondary, and urban-extension systems (ABC systems) received a less dramatic boost in program level, and the normal two-year authorization period was retained. The authorization level of $550 million for fiscal years 1953 to 1955 had already been boosted by the 1954 act to a level of $700 million for 1956 and 1957. The 1956 act further boosted the ABC authorizations by adding $125 million for 1957, giving a level of $825 million, and then adding another $25 million a year for 1958 and 1959 (that is, giving $850 million and $875 million). A continuing $25 million increment was a policy goal of the House Public Works Committee.
Highway Revenue Act of 1956 (Title II)

Title II of the 1956 act, termed the Highway Revenue Act of 1956, increased some existing excise taxes and created several new taxes. These taxes were then channeled into the Highway Trust Fund in varying percentages (see Table 1). Although most of these taxes had previously been collected and deposited in the general fund, they had not flowed to a dedicated trust fund for use in highway programs. Only taxes on rubber retreads and on heavy-vehicle use had not been previously imposed. Insofar as motor fuel taxes provide the major share of receipts for the Trust Fund—89 percent in 1957—the increase in fuel taxes from 2 cents a gallon to 3 cents represents the 1956 act's most significant change in tax rates. The taxes established or increased in 1956 were to revert to a reduced rate at the beginning of fiscal year 1973, which was then foreseen as the end of the construction program for the Interstate System. Rate reductions are still part of the existing law, although the reversion date has now been extended to the end of fiscal year 1979 and no longer coincides with anticipated Interstate completion.

Two distinctions among users of the highway system and their taxation are worthy of note. First, the new tax on heavy-vehicle use was established in part to create a more equitable relation between the user charges paid and the costs incurred for construction to accommodate heavy vehicles. This user tax, assessed by gross vehicle weight, generates only a small amount of revenue relative to the fuel tax, but it reflects Congressional concern over the equity of highway financing across different types of users. Equity was a stated goal of the act, and further study of the issue was mandated. Second, truck and bus excise taxes were incorporated as Trust Fund receipts, whereas automobile excise taxes (which had been collected since 1951 at a rate of 10 percent of manufacturer's wholesale price) were not.

The separation of revenue provisions into a separate title is significant because programs and financing are traditionally prerogatives of different committees of the Congress and continue to require a different legislative process. The Highway Trust Fund is not a federal assistance program for highways; it was created as simply a holding device for dedicated funds. The Trust Fund receipts need bear little relationship to the current or future requirements for highway assistance, although the tax levels were set (and have been adjusted) with the Interstate program in mind. The receipts do, of course, put a tentative ceiling on federal assistance levels, though several programs are also financed from general revenues. On the other hand, the existence of the Trust Fund does make the financing of highway programs more straightforward or mechanical up to the
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a/ Taxes on parts and accessories and lubricating oil continued to be levied but were not put into the Highway Trust Fund until 1966.

b/ Before the Highway Trust Fund, these taxes were deposited in the general fund.

c/ Only 3/8 accrued to the Highway Trust Fund in fiscal year 1957, and 100 percent thereafter.

d/ Only 20 percent accrued to the Highway Trust Fund in fiscal year 1957, and 50 percent thereafter. Transit buses were generally exempted.

e/ The previous federal use tax was repealed in 1946.
level of receipts lodged in the Trust Fund itself. At any rate, if the Highway Trust Fund were terminated, this would not necessarily change highway expenditures or the level of federal assistance for highways; the procedures by which those levels are determined, however, would be changed.

CONGRESSIONAL DETERMINATION ON MAJOR ISSUES

In this section the major policy issues identified during the legislative debates on the 1956 act are examined. The 1956 policy is stated first, followed by a discussion of the background and the underlying positions taken in the legislative debates on the issue.

Linkage of User Taxes

The 1956 act created a direct "linkage" between highway program levels and the user-generated receipts put into the newly created Highway Trust Fund. The specified taxes were earmarked and set aside for use only in highway programs.

Until 1956, these taxes were general revenues to the U.S. Treasury with no legally specified dedication or allocation. Their dedication to highways was extremely controversial. Much of the discussion at the hearings in 1955 and 1956 focused on this issue. It was the general issue of earmarking, however, and not the Highway Trust Fund itself that was debated. No specific Trust Fund proposal was included in the revenue bill considered by the House Ways and Means Committee in its February 1956 hearings. Rather, the proposal came out of committee markup.

The linkage of federal assistance to highway-related tax receipts had a considerable history, so it is rather amazing that the 1955-1956 legislative proposals and hearings did not address the issue early on and directly. Instead, only indirect reference and rather peremptory discussion took place. There was an evident aversion to the earmarking of federal revenue because of a fear that this would open the door for other programs to request similar treatment, thereby generally tying the hands of the Congress in its spending deliberations. Yet, gas taxes imposed by many states had long been earmarked for highway programs. Indeed, the Hayden-Cartwright Act of 1954 contained a policy statement that diversion of highway taxes was
unfair. The statement was general, though sanctions were specified only for states. The Doyle Report found evidence of a growing movement toward linkage from 1934 onward. 

Bills incorporating linkage had been introduced since at least 1948, and the subject had been debated on the floor of both chambers in 1952. In 1954 the House had passed a bill (H.R. 8127) that linked highway expenditures to user-tax receipts. In the following year, Congressman Hubert B. Scudder of California stated:

In the past few years the moneys that we have authorized from this Committee (House Public Works) for highway matching funds have been geared very largely to the receipt of funds from the gas tax. 

Objecting primarily to linkage of receipts from nonhighway users of fuel, the Senate did not accept the 1954 House provision, and the provision was not included in the 1954 act. In its 1954 report, however, the Senate Committee did say that federal aid then provided was approximately equal to the tax revenues from motor fuels and lubricating oils. Thus, informal linkage apparently was accepted in both the House and the Senate in the early 1950s. In fact, in 1953 Senator Warren G. Magnuson of Washington and Congressman John C. Kluczynski of Illinois had introduced bills (S. 216 and H.R. 3637) specifically calling for the establishment of a trust fund.

Although the Administration proposal, which was based on the Clay Committee Report, did not incorporate the trust fund concept directly, it did establish a linkage. The taxes on motor fuels were to be pledged informally to service the proposed bond issue. The first witness at the House hearings on the Clay report, Secretary of Commerce Sinclair Weeks, used the term "earmarking revenue" to describe the Clay proposal and compared the proposed Highway Corporation funding with other trust funds. 

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6/ National Highway Program, Hearings before the House Committee on Public Works, 84:1 (1955), p. 34.

He specifically mentioned as similar programs the funding provisions under the Social Security Act, the Railroad Unemployment Insurance Act, and the "duck stamp" program. 8/

During the House hearings, Secretary of the Treasury Humphrey also compared the proposed highway funding provision with the earmarked receipts for the Social Security fund. Further, Secretary Humphrey clearly insisted on a financing plan that would levy taxes sufficient to pay for the authorized expenditures and not deplete general revenues. 9/ In the Senate, Secretary Humphrey made clear his view that the Clay proposal "provides for the dedication of certain revenues to certain purposes," but without the bookkeeping trouble of technical earmarking to a specific fund. 10/

During the 1956 hearings on the revenue portion of the bill, Secretary Humphrey again resisted technical earmarking, while seemingly supporting the concept:

This is not earmarking.... I would not recommend earmarking. I am talking about handling this about the same way as we handle the trust funds....

What is technically earmarking I do not think is required, or desirable. 11/

The only direct proposal for formally dedicating highway-related receipts came from Mayor Charles P. Taft of Cincinnati, Ohio. He pointed out that

8/ National Highway Program, Hearings before the House Committee on Public Works, 84:1 (1955), p. 24. A "duck stamp" is a hunting fee, the proceeds of which are dedicated to wildlife restoration. Also, in 1950, the receipts from the excise tax on fishing tackle were authorized for appropriation for federal aid to fish restoration and management programs (64 Stat. 430).

9/ Ibid., p. 1187.


Ohio had a constitutional provision that fuel taxes must be used for roads, and that:

The money raised should certainly be put in a trust fund.... We are required to do it in Ohio, and find no difficulty in practice.... All gasoline and license taxes are put in a trust fund and can only be used for roads and immediately related purposes. 12/

Although the bill under consideration did not contain a trust fund provision, the bill's sponsor, Congressman Hale Boggs of Louisiana, clearly agreed when he stated:

... that is exactly what we are trying to do, use all the fuel tax and all the other user taxes for roads. 13/

The bill reported by the House Ways and Means Committee, and eventually passed by the full House, did contain a trust fund provision. The Republican members, possibly swayed by Mayor Taft's testimony, submitted "Supplemental Views" in which they assumed responsibility for the provision:

We recommended, and the Committee accepted, the establishment of a highway trust fund. The existence of this fund will insure that receipts from taxes levied to finance this program will not be diverted to other purposes. 14/

When the Senate Finance Committee questioned Secretary Humphrey, the trust fund provision was pointed out but not discussed. 15/ It had become merely a technical matter of no real importance. This acceptance of earmarking provided the desired assurance of continuous financing for the

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12/ Ibid., pp. 153-54.
15/ Highway Revenue Act, Hearings before the Senate Committee on Finance 84:2 (May 1956), pp. 66 ff.
long-term construction projects involved in building the Interstate System, and dedication had won the support of affected industry groups for the accompanying tax increases.

The choice of taxes. In establishing the Trust Fund, the Congress had to specify which tax receipts would go into the fund and thus be linked with highway expenditures; in doing this, they also determined which taxes would be treated as user charges. That is, there was a wide array of highway-related excise taxes, but only those incorporated in the Trust Fund would be dedicated to highway use. Relating expenditures to tax receipts has the effect of making a program self-financing rather than directly subsidized—in other words, beneficiaries are charged for what they receive. The charges considered were indirect and did not take the form of fees for use of specific segments of highway (for example, tolls).

There was no clear agreement on the issue of which taxes to choose, though the motor fuel taxes were generally thought of as user-related (probably because of their treatment as such by the states). The Clay report had also included the excise on lubricating oil, though in the end this was not put in until 1966.

The auto excise tax was probably the most controversial tax, even though it was rarely discussed in hearings. The Administration's position, which was established early, is evident from the following exchange in 1955:

Senator Gore: How do you regard the excise tax on automobiles?

Secretary Humphrey: That is not a user tax. 16/

The Administration resisted the inclusion of excises other than those on fuel to the end, both because of their deflection from current general revenues and because of their categorization as general manufacturer's excises not associated with the highway program. 17/

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16/ National Highway Program, Hearings before the Senate Committee on Public Works, p. 543.

17/ See Secretary Humphrey's testimony in May 1956 in which he accepted dedication of fuel taxes but termed inclusion of other excises a diversion of general revenues; Highway Revenue Act, Hearings before the Senate Committee on Finance, pp. 71-72.
The Senate Finance report in 1956 is forthright in discussing the taxes included, and the political nature of that decision may be inferred:

... it is proper to use the existing taxes on tires and inner tubes to aid in the financing of an expanded highway program, since they are just as clearly highway user taxes as are the motor fuel taxes. ... There will still remain several highway user taxes in the general fund. 18/

Apportionment

The 1956 act contained a two-stage compromise on the apportionment of funds for the Interstate System. The Senate version, which retained the existing formula based on state population, area, and route mileage, was adopted for the first three years (fiscal years 1957-1959); after that the House version, which contained a new cost-to-complete formula, was to be used.

The existing formula for the Interstate System was an amended version of the traditional apportionment formula for the primary system. The amendment, which was incorporated in the 1954 act, doubled the weight for population, giving more funds to populous states that were experiencing congestion. The Senate version favored retaining this definite formula that would provide the states with a stable planning base. Also, the Senate considered the states' estimates of expected costs to be erratic and potentially inequitable as an apportionment basis, especially in the first years of the Interstate program. The House version, based on the estimated cost to complete the Interstate System, was put forward as a means of simultaneously assuring completion and providing funds where they were most "needed" to make progress on the system.

A comparison of the apportionments derived from each formula shows wide differences in many states' shares. The urbanized states tended to lose apportionments under the existing formula relative to the cost-to-complete calculation, presumably because they contained more mileage and much of it through densely populated areas where construction costs are high. In the

first two years following the 1956 act, 31 states were eligible to receive higher apportionments under the Senate proposal than they would have been under the House proposal. 19/

Heavy Trucks

The 1956 act imposed new taxes to be borne primarily by heavy trucks, and it required receipts from truck ad valorem taxes to be put in the Trust Fund. Weight and width limitations were imposed on vehicles using the Interstate System. Section 108 (j) provided for a maximum axle weight of 18,000 pounds, a maximum gross weight of 73,280 pounds, and a maximum width of 96 inches. Weights consistent with state regulations before July 1, 1956, were allowed, however (this is often termed the grandfather clause regarding weight restrictions). These provisions remained basically intact until the 1974 amendments that eased the limitations. Further, a policy statement was incorporated directing future Congresses to enact legislation to ensure an equitable distribution of the tax burden among various classes of persons using the Federal-aid highways, or otherwise deriving benefits from such highways. 20/

To insure that future action would be well-founded, Section 108(k) directed that tests be conducted to determine maximum desirable dimensions and weights, and Section 210 (b) mandated that studies be done on the proportionate share of highway costs attributable to each class of users.

The new tax on heavy-vehicle use was in part an attempt to balance the relation between the charges paid by users and the costs incurred for

19/ California, Connecticut, Indiana, Massachusetts, Michigan, New Jersey, and Ohio stood to lose substantial apportionments under the Senate proposal, whereas North Carolina, Pennsylvania, and Texas stood to gain the most. Federal-Aid Highway Act of 1956, S. Rep. 1965, p. 12. While the gaining states outnumber the losing ones, it is noteworthy that only one major gaining state under the Senate proposal had a member on the Senate Public Works Committee, whereas three losing states did.

construction to accommodate heavy vehicles. The Administration's witnesses were closely questioned on this issue, and their testimony was completely noncommittal.

Secretary Humphrey: I have said that I do not think I am qualified to tell you where to put the taxes. What I am telling you is the amount of money you ought to raise....

The Chairman: ...you are not prepared now to make a recommendation to the Committee as to just where that additional revenue should be secured?

Secretary Humphrey: That is right. I can suggest the amount, but not the location.

* * *

Secretary Weeks: Mr. Boggs, I do not want to comment on the tax features of this measure. I think that the Secretary of the Treasury... should discuss the taxes.

Mr. Boggs: The Secretary of the Treasury said that he had no recommendations to make either....

Mr. Boggs: The question is whether or not the rates proposed in the bill are unfair to motorists and discriminatory in favor of truckers.

Mr. Curtiss (Commissioner of Public Roads): Mr. Chairman, we have no information that would let us say definitely that the tax rates proposed are either fair or unfair....

Secretary Weeks: It is not for the Bureau of Public Roads to answer that question, sir.... They should not answer that question. 21/

The House Ways and Means Committee in its report concluded that:

21/ Highway Revenue Act of 1956, Hearings before the House Committee on Ways and Means, pp. 37, 41, 187, and 188.
From the evidence now available it appears that there should be some tax differential, imposing more of a tax burden on trucks and buses than on passenger cars. 22/

The Senate Committee did not address this issue directly. The committee did, however, include a somewhat different use tax (applied only to weight in excess of 26,000 pounds) that would have collected less revenue from heavy trucks. The adoption of the House version (applied to total weight) was termed "a victory for the average motorist in that it results in heavy trucks paying a fairer share." 23/

The new use tax on heavy vehicles assessed by gross vehicle weight, actually generates only a small amount of revenue relative to the fuel tax and other Trust Fund receipts—about 2 percent in 1957 and more than 3 percent in 1974—but its imposition reflects the direction of Congressional policy concerning the distribution of user payments across different types of users. The annual weight-related tax was imposed in lieu of higher fuel taxes for heavy vehicles or higher diesel taxes, even though it was known that heavy diesel trucks get considerably better mileage than other trucks and are the dominant heavy vehicle in intercity highway use.

Automobiles had been subject to a 10 percent excise tax since 1951 (and to lower rates before that time), yet the automobile excises were not put into the Highway Trust Fund. Truck and bus excise taxes, however, were both increased and incorporated as Trust Fund receipts. Thus, the auto excise tax was not treated as a dedicated user charge, though it continued to be assessed for several years. Proposals to transfer the auto excise to the Trust Fund were reintroduced after 1956; they were not successful, however, and the tax was eventually repealed in 1971. The 1956 exclusion appears to have been more closely related to political compromise than to any rationale regarding relative auto-truck tax burdens.

Byrd Amendment

The 1956 act established a pay-as-you-build program by limiting (reducing) apportionments that would otherwise create a deficit in the Trust
Fund in any given year. This provision—in Section 209 (g)—was "designed to give assurance that no deficit will develop in the highway trust fund." 24/

Deficit financing, the national debt, and the accompanying interest burden had been controversial aspects of the highway proposals throughout the history of the 1956 act. The Clay report's recommendations on bonding had been a casualty of this controversy, because they involved long-term debt and a heavy interest burden. The accelerated Interstate System construction program approved by the House contained deficit spending within the Trust Fund mechanism. The Trust Fund would have had to borrow from the general fund as construction accelerated and would have balanced the projected revenues and expenditures only at the end of 16 years, three years after the last authorization for the Interstate System. Under the program proposed by the House, the Trust Fund would have first showed a debit balance in 1962; that debit would have increased through 1969, and then gradually would have been eliminated as the construction program wound down while revenues continued to accrue.

Senator Byrd had consistently opposed the accrual of a debit balance in the Trust Fund. The testimony by the Secretary of the Treasury in the final round of hearings on the bill proposed an annual limitation to pay-as-you-build in addition to the required balance between total receipts and expenditures over the life of the program. 25/ The Byrd Amendment incorporating this proposal was added to the bill and no objections were voiced on the Senate floor. This amendment contained fiscal restraints over and above the general policy that the total receipts of the Trust Fund be sufficient to meet the total expenditures (Section 209), effectively making that policy apply annually.

Application of the Davis-Bacon Act

Section 115 of the 1956 act required that all employees working on Interstate System highway projects be paid the prevailing wage as determined by the Secretary of Labor in accordance with the Davis-Bacon Act of 1935.


25/ Highway Revenue Act, Hearings before the Senate Committee on Finance, pp. 73, 74, and 79.
This provision was controversial even in the House Public Works Committee in which it arose. Dissenting supplemental views were filed with the committee report; they disputed the need for such a provision, questioned the jurisdiction of the federal government in this state matter (several states already had comparable provisions), and questioned the jurisdiction of the Public Works Committee in a Labor Committee matter. One of the dissenters, Congressman George A. Dondero of Michigan, the ranking minority member of the Public Works Committee, said on the House floor that:

...practically the only section that we are in violent disagreement about is the Davis-Bacon provision. 26/

The Senate added a similar Davis-Bacon provision by amendment after extensive floor debate and a close vote. 27/ A Senate provision providing for review and appeal by state highway departments of the wage determination was rejected in conference on the ground that projects might be delayed. 28/

THE PROGRAM FOR 1957

After passage of the 1956 act, the highway assistance programs could be categorized in three main groups:

- The assistance program for construction of the Interstate System, authorized through 1969 and funded from the Highway Trust Fund.
- The traditional federal-aid program for construction of primary, secondary, and urban-extension (ABC) systems, authorized for two additional years (through 1959) and funded from the Highway Trust Fund.


27/ The floor debate in the Senate was riddled with confusion over the Davis-Bacon provisions, since two different amendments had been approved—one to the House bill and one to the Senate substitute. See Congressional Record, Senate, vol. 102, 84:2 (1956), pp. 9248-49.

o A group of relatively small assistance programs for construction of highways, roads, and trails in national forests, national parks, other public lands, and Indian reservations. Financing of these programs was from general funds.
CHAPTER III. THE EVOLUTION OF HIGHWAY ASSISTANCE AFTER 1956

This chapter examines the major changes in federal assistance programs for highways from the establishment of the Highway Trust Fund in 1956 until now. Particular attention is directed to the changes in the tax receipts assigned to the Highway Trust Fund and to the uses specified for these dedicated funds. Also, assistance programs for highways that are paid out of the general fund are detailed.

THE SEARCH FOR MORE RECEIPTS

The 1958 Act

The highway programs established and funded in 1956 encountered immediate difficulties. The construction of the Interstate System was a bold new program, and the original cost estimates were too low. Costs escalated rapidly as the program got underway, and the 1958 estimate for completion was $41 billion, more than 50 percent higher than originally envisioned. In addition, the receipts accruing to the Trust Fund did not experience the sort of rapid growth anticipated. The Secretary of Commerce advised, on the basis of estimates by the Bureau of Public Roads, that only about $1.6 billion would be available for apportionment for the Interstate System in 1960. This was less than the $2.2 billion obligation level authorized for 1960 in the 1956 act. Thus, either the apportionment level, the tax receipts, or the Byrd Amendment which barred a deficit in the Trust Fund had to be changed.

The Federal-Aid Highway Act of 1958, which was put forward as an antirecession measure, suspended the Byrd Amendment for 1959 and 1960,

1/ U.S. Department of Transportation, Federal Highway Administration, America's Highways, 1776-1976 (1976), pp. 480 and 484. The cost figure has been adjusted to include the entire 41,000 miles authorized. For consistency, all cost figures cited for the Interstate System are based on this source.
allowing apportionments to be made for the full amount authorized even though Trust Fund revenues were not expected to be sufficient. Thus, the "pay-as-you-build" principle established in the 1956 act was almost immediately suspended, albeit only temporarily.

Additional authorizations were also made for 1959, and the funds were made available immediately (the original 1959 authorization had already been apportioned). For these additional funds, which were primarily countercyclical in nature, the regulations regarding the proportion of funds allocated to each of the ABC systems were suspended and the federal share was temporarily increased to two-thirds.

The decision not only to continue Interstate authorizations but also to raise the levels was based on two reasons. First, it was argued that a general economic stimulus would derive from the increased authorizations. Second, much was made of the Congressional intent expressed in 1956 regarding the "acceleration and prompt completion of the Interstate System." 2/

Also, beginning in 1958 an attempt was made to regulate the use of areas adjacent to the Interstate System—in this case by controlling outdoor billboards. This provision was quite controversial, raising issues such as federal regulation of advertising, regulation of the use of private property, and indirect exercise of powers not possessed by the federal government (that is, using federal money to induce state action). Dissenting views were submitted in the committee report, but a national policy to control advertising was approved along with a 0.5 percent increase in federal share for complying states.

An important pair of provisions included in the 1956 act dealt with the size and weight restrictions on trucks and with the distribution of the tax burden among the various classes of highway users. These topics have been the source of continuing controversy throughout the history of the Highway Trust Fund. A separate piece of legislation in 1958 extended for two years—until 1961—the time allotted to submit reports to the Congress on both of these items. 3/ Thus, the existing size and weight restrictions were maintained, though they allowed (via the grandfather clause) any


3/ An Act to extend the time for making certain reports..., 72 Stat. 983.
weights that states had previously held legal, and distribution among users of the tax burden accruing to the Highway Trust Fund was effectively frozen for an additional two years. This meant that almost five years would have passed before the Congress would have its requested reports and studies.

The 1959 Act

The expanded highway program authorized in the 1958 act, along with the suspension of the Byrd Amendment, presented the Trust Fund with financial difficulties. The full apportionment of the increased amounts for 1960 was mandated by the 1958 act. Outlays associated with these apportionments, however, would create a deficit balance in the Trust Fund, and it soon became evident that no Interstate apportionments for 1961 would be possible under existing law. President Eisenhower recommended an increase of 1.5 cents a gallon in the federal tax on motor fuels to avert a serious disruption of Interstate construction while maintaining the "pay-as-you-build" requirement. The President rejected proposals to divert automobile excise taxes from the general fund to the Trust Fund, and the Administration now looked with disfavor upon bonding to finance Trust Fund deficits, though this had been central to the Administration's original proposal in 1955. 4/ The Congress had to act.

The Federal-Aid Highway Act of 1959 reduced the authorized amount for the Interstate System in fiscal year 1961 by $500 million to $2 billion—less than the amount originally authorized in 1956. Additional revenue was still required, and it was provided by putting more tax revenues in the Highway Trust Fund. Fuel taxes were increased temporarily by one cent to four cents a gallon for 1960 and 1961. Further, in a major policy change, half of the existing 10 percent automobile excise tax was to be allocated to the Highway Trust Fund. These additional Trust Fund revenues were expected to be sufficient to provide for Interstate apportionments at or near the authorized level, solving the immediate financing problem created by the increased apportionments and the suspension of the Byrd Amendments in 1958. The increased revenues were provided for only five years, though a long-run financing problem was recognized. Further consideration of the long-run problem was postponed awaiting the study of highway cost allocation that had been mandated by the 1956 act.

The 1960 Act

Very few changes in the highway program were made in the Federal-Aid Highway Act of 1960, with most authorizations for 1962 and 1963 being continued at the 1961 rate. The reports and investigations anticipated in January 1961 were cited as reason for deferring an in-depth examination of the overall highway program. 5/

The Senate did attempt to authorize an additional $100 million to alleviate economic distress. This was essentially a renewal of the antirecession measures found in the 1958 act. The provision was not accepted by the House.

The 1961 Act

The 1961 legislation marks an interesting point in Congressional policy toward highways. A number of temporary provisions had been introduced regarding programs and taxes, while the Congress awaited receipt of several studies and reports mandated by earlier acts. The most important of these were the updated cost estimate for the Interstate System and the studies regarding the appropriate distribution of the tax burden among various highway user classes.

In 1961, a new cost estimate for completing the Interstate System was submitted to the Congress. The estimate was $41 billion, unchanged from 1958. In the Federal-Aid Highway Act of that year, the new estimate was approved as the basis for making apportionments, and the Congress affirmed its intent to provide for the completion of the Interstate System on approximately the original schedule by authorizing an increased annual program level through 1971, an extension of two years. Federal authorizations were increased more than $11 billion to provide a total federal contribution of approximately $37 billion.

Of course, because of the Byrd Amendment, the authorized levels could not be apportioned without adequate revenue accruing to the Trust Fund. In fact, the apportionment of the 1961 authorization had been restricted by the estimated Trust Fund balance. The revenue provisions of the 1961 act were intended to:

make possible substantially all of the financing of the $37 billion Federal share of the Interstate System as well as permitting a gradual increase in the apportionments for the ABC program. 6/

The Cost Allocation Study. The decision about how the required Trust Fund receipts were to be levied—that is, distributed among various existing or possibly new taxes—was based in part on the highway cost allocation study. This study, which had been called for in the 1956 act, was an analysis of proper ways of allocating the cost of highways among various classes of beneficiaries. 7/

The study was somewhat inconclusive because of an inability to choose among several different methods of spreading the cost among various classes of users. The 1956 act imposed some ambivalence. The act directed that costs should be allocated based on two factors, the cost effects of different vehicle types and the benefits they derived. Primarily because of this legislative instruction, the two methods of cost allocation that received the most attention were:

- The incremental method: This method assigned general costs to vehicle types on the basis of relative use or mileage, but allocated increments of costs to special vehicle types that caused these costs to be incurred.

- The differential benefit method: This method established cost allocation according to the proportionate benefits accruing to each vehicle class as a result of the highway improvement undertaken, taking into account factors such as operating costs and reduction in travel time.

Adoption of the incremental cost method would have assigned somewhat lower responsibility to automobiles and considerably higher responsibility to heavy trucks. Both methods, however, implied a higher cost assignment to most types of vehicles than was in effect under present law at that time (January 1961).


President Kennedy's Proposal. President Kennedy, in his 1961 message to the Congress on highways, proposed retention of the existing fuel tax of four cents a gallon and an increase in most of the other taxes accruing to the Highway Trust Fund (see Table 2). The Kennedy Administration chose not simply to raise fuel taxes but:

...to emphasize instead a fairer allocation of the burden among those who use the highways. Practically all of the increase in revenues would come from the heavier trucks. This is only fair. 8/

The President's proposal approximated the incremental cost method of allocating the tax burden among users. The taxes proposed by the Administration would have resulted in highway receipts to the Trust Fund that, in the case of several classes of vehicles, were even higher than those implied by the incremental cost method. The proposal was, perhaps, intended to reflect anticipated inflation or to establish a better bargaining position.

Congressional Action. The Congress did not accept either method of cost allocation, nor did it accept the President's proposals. The Senate Finance Committee stated:

...although the bills increase substantially the tax on truckers, it was not considered appropriate to make the full increase recommended by the Administration. In part this conclusion was reached because it believed it would be unfortunate to make so substantial an increase in the costs of the truckers. 9/

The increases assigned to heavy trucks were not so large as those recommended by the Administration, which had followed more closely the incremental method. Instead, taxes were imposed that caused the tax burden for all the heavier truck classes to fall between the levels implied by the two methods of cost allocation. Also, more truck-related revenues were


TABLE 2. FEDERAL TAX PAYMENTS TRANSFERRED TO THE HIGHWAY TRUST FUND BY THE FEDERAL-AID HIGHWAY ACT OF 1961: IN DOLLARS

<table>
<thead>
<tr>
<th>Tax</th>
<th>Existing Level in January 1961</th>
<th>Proposed by President Kennedy</th>
<th>1961 Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel Fuel (per gallon)</td>
<td>0.04</td>
<td>0.07</td>
<td>0.04</td>
</tr>
<tr>
<td>Gasoline and Other Fuels (per gallon)</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Highway Tires (per pound)</td>
<td>0.08</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Inner Tubes (per pound)</td>
<td>0.09</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Tread Rubber (per pound)</td>
<td>0.03</td>
<td>0.10</td>
<td>0.05</td>
</tr>
<tr>
<td>Trucks Over 26,000 Pounds (per 1,000 pounds)</td>
<td>1.50</td>
<td>5.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Excise Tax on New Trucks</td>
<td>5% a/</td>
<td>5% a/</td>
<td>10% b/</td>
</tr>
</tbody>
</table>


a/ One-half the 10 percent rate imposed on the wholesale price.

b/ The rate imposed on the wholesale price was not changed, but the entire tax was now channeled into the Trust Fund.
put into the Trust Fund by virtue of transferring the entire 10 percent excise tax on new trucks to the Trust Fund. Additional revenues were gained by extending Trust Fund receipts for three more months, to October 1972.

President Kennedy opposed the transfer of automobile excises into the Trust Fund, arguing that the diversion of general funds was not justified, would unbalance the budget, and went against the intent of the 1956 act. The Congress went along with the recommendation of the President in this regard, repealing the scheduled transfer of the auto taxes but continuing their imposition for the time being.

A dissenting view, favoring the President's recommendations, was put forward by Senator Paul Douglas of Illinois. He argued that road costs were the same whether trucks were powered by diesel or gasoline engines, and therefore the charge per mile of vehicle travel should be the same. Since diesel consumption per vehicle mile was estimated to be about 60 to 70 percent of the gasoline consumption, a higher tax rate per gallon on diesel fuel was justified. A similar argument was put forward regarding tread rubber, which is used much more extensively for trucks than for automobiles. The increases proposed by the Administration would have raised trucking costs by about one cent per vehicle mile relative to the 1961 law; as a comparison, it was shown that trucks were voluntarily paying four to seven cents a mile in tolls on existing toll roads.

As is shown in Table 2, the result was a permanent continuation of the four-cents-a-gallon fuel tax on all fuels and several tax increases for heavy trucks. The major new receipt dedicated to the Trust Fund was the remaining one-half of the excise tax on new trucks and buses; the tax itself was not increased, but the whole tax was now channeled into the Trust Fund. The mix of Trust Fund receipts was thus altered in the direction, but not the magnitude, suggested by the cost allocation studies.

The 1962 Act

No major changes were instituted in the Federal-Aid Highway Act of 1962, although several minor developments of interest occurred. Authorizations for the ABC systems were increased by $25 million a year; this was a return to the increment formula first discussed in 1956. The minor general fund highway programs were all given substantially increased authorizations, especially forest development roads and trails and public lands highways; the 1965 authorizations for both of these programs were more than double their original 1963 levels. For the first time since the establishment of the Trust Fund, new program categories received separate
authorizations. The new programs were public lands development roads and trails, the Rama Road in Nicaragua, and the Inter-American highway in several Central American countries. These general fund programs were authorized in the highway legislation, but they were often administered by other agencies.

Several changes in the 1962 legislation affected urban areas. First, urban extensions of secondary roads were authorized for inclusion in the federal-aid system; previously, only primary extensions were. Second, an expanded urban transportation planning effort was declared to be in the national interest, and approval of urban projects was made conditional on an effective planning process. To accomplish this, the highway planning and research funds—1.5 percent of the federal-aid apportionments—were restricted to use for planning and research and could not be transferred to construction uses. Further, an additional 0.5 percent was made available at state option for planning use, and the state matching funds for planning were made discretionary to the Secretary of Transportation. This was the origin of the continuing, comprehensive, cooperative (CCC) planning process now required of urbanized areas; this process was eventually extended to other modes of transportation.

The 1963 Amendments

The only significant policy incorporated in the Federal-Aid Highway Amendments Act of 1963 was a change in design standards for the Interstate System. Originally, the Interstate network was designed for traffic projected to 1975. The 1963 amendment required that each project accommodate the traffic anticipated for a 20-year period commencing on the date of project approval. This greatly magnified the design capacity and cost of segments of the system that were begun following passage of the amendment. Some minor changes in apportionment formulas were also instituted at this time.

The 1964 Legislation

No significant policy changes were incorporated in the Federal-Aid Highway Act of 1964. The authorization level for ABC roads reached $1 billion for fiscal years 1966 and 1967, and the subsidiary, general fund programs were reduced somewhat from their rather high levels of the preceding two fiscal years. In a separate act, the Secretary of Agriculture was given additional authority to provide an adequate system of roads and trails in national forests and other Forest Service lands. No further
authorizations were provided for the two foreign road networks that had received funding in the 1962 act. Again, in a separate act in 1964, additional planning money for the Great River Road along the Mississippi River, initially put forward in 1954, was authorized.

The 1965 Legislation

The 1965 Amendments to the Federal-Aid Highway Act authorized the Secretary of Commerce to apportion Interstate funds based on the new 1965 cost estimate for completion of the Interstate System, but the amendments stated that the Congress "reserves the right to disapprove the cost estimate for completion." Completion cost for the Interstate System was now projected at $46.8 billion, an increase of $5.8 billion over the 1961 estimate. The Interstate authorization for 1965 was increased by $100 million to $3 billion—the first change since the 1961 act had established new authorizations in response to that year's cost estimate. This represented a short-term reaction, covering only one year, to the increased estimate of the cost to complete the system.

Safety and Beautification Program. The 1965 amendments mandated highway safety programs for each state although no separate agency with safety responsibilities was established at this time. Also in 1965 the Highway Beautification Act greatly expanded sections of the previous legislation dealing with control of outdoor advertising. Previously, the states had been offered the inducement of an increased federal share if they made provisions for effective control of billboard advertising along the Interstate System; now a penalty of 10 percent of federal highway funds was mandated for states that had not made such provisions. Along similar lines, sections were included for control of junkyards and for landscaping and scenic enhancement. Each of these safety and beautification programs received its own separate authorization for appropriations out of general funds. Use of Trust Funds for these activities was prohibited by the act. Generally, these activities were considered maintenance functions whereas the Highway Trust Fund was used predominantly for construction activities.

Tax Changes in 1965. The Excise Tax Reduction Act of 1965 eliminated a large number of selective excise taxes. Those excise taxes that were continued were designed for three specific purposes:

- User charges, levied on beneficiaries of government-provided services;
o Regulatory taxes, such as that on gambling; and

o Sumptuary taxes, such as that on alcohol.

Judging from the committee reports, the changes were based on relatively theoretical grounds. There is no mention of problems with the Trust Fund or of the sizable cost increase projected in the 1965 Interstate cost estimate. Rather, the key question was whether continuation was justified by one of the three purposes. The Chairman of the House Ways and Means Committee, Congressman Wilbur Mills of Arkansas, went so far as to say on the floor:

When this bill becomes fully effective . . . we will be able to say that the excise taxes which still remain in effect are there for a logical reason. 10/

The excise tax on trucks was already allocated to the Trust Fund and thus accepted as a user charge. The taxes on truck parts and on lubricating oil (for highway use) were now accepted as user charges; they were continued and transferred to the Highway Trust Fund as of January 1, 1966. A supplemental report on cost allocation again indicated insufficient taxes on heavy trucks, and President Johnson proposed higher tax rates on diesel fuel, tread rubber, and heavy-vehicle use, identical to those put forward by President Kennedy in 1961 (see Table 2). 11/ The proposed increases were not even mentioned when the revenue bills were reported, and truck tax levels remained unchanged.

The automobile tax provoked considerable debate. Eventually, the tax was not treated as a user charge and was scheduled for staged reductions to a 1 percent rate. President Johnson had requested retention of a 5 percent rate on autos, primarily because of the large revenue loss (about $1 billion annually), but the House Ways and Means Committee "concluded that it could not justify leaving the five-percent tax on passenger cars." 12/ The


Senate Finance Committee generally concurred with the House, but proposed retention of a 1 percent rate and attempted to link the receipts to expenditures from the general fund for disposal of junk cars. The 1 percent was retained without dedication of the revenue and was eventually repealed in 1971. (These rate provisions were superseded in 1966 as spending levels on the war in Vietnam became evident. In any event, the Highway Beautification Act in late 1965 incorporated provisions for junk yards financed from general funds.)

Appalachian Regional Development

In 1965 the Appalachian region was singled out for special development assistance. As part of a broad program to promote economic growth in the region, several public investment programs were instituted under the Appalachian Regional Development Act of 1965. A highway network of 2,350 miles termed the Appalachian Development Highway System was authorized, along with 1,000 miles of access roads. Construction of the system was to be financed from general funds, and a lump-sum authorization of $840 million was provided. The Secretary of Commerce was given authority to raise the federal contribution from the normal 50 percent of the project's cost to 70 percent.

Later, in 1967, the authorized highway mileage was expanded to 2,700 miles plus 1,600 miles of access roads, and additional general funds were authorized. The lump-sum authorization was converted to annual amounts in 1971, and these amounts were treated as contract authority in the same fashion as for most highway programs. Amendments to the act in 1975 transferred some mileage from access roads to the regular network and provided annual authorizations through 1981, giving the Appalachian Development Highway System a longer-term authorization than other highway programs, except the Interstate System.

Although these Appalachian highways are not mentioned in the general highway acts and are not considered to be Federal Highway Administration programs, they have consistently been one of the largest general fund programs in terms of financial assistance. They are discussed here and included in the financial profile of Chapter IV because of their magnitude and because, at least to some extent, almost all highway programs generate developmental benefits by reducing particular transport costs, travel time, and other associated costs. Also, this program represents assistance to a specific (though fairly broad) geographic region—movement away from traditional national highway programs apportioned among all the states.

41
The 1966 Act

With the Federal-Aid Highway Act of 1966, all the revenues from highway-related federal taxes on motor fuels, tires, new trucks, truck parts, lubricating oils, and heavy-vehicle use were transferred to the Trust Fund and used only for federal highway programs. The excise tax on new automobiles became the only highway-related excise tax not dedicated to the Trust Fund. The rate of the auto excise tax was raised to 7 percent in a 1966 revenue measure, and the tax continued to be considered a general revenue.

The 1965 legislation had withheld approval of the Interstate cost estimate and left unauthorized $4.9 billion of the $5 billion increase in the estimated federal share. In the 1966 debates, the Senate continued to question the cost estimate and proposed that the Interstate authorizations be made only for two years. The bill that was eventually passed provided $5.2 billion in additional Interstate authorizations through 1972, one extra year, and authorized use of the cost estimate for apportionment. Another revision in Interstate standards specified that all Interstate segments should have at least four highway lanes. This created an additional cost escalation that would presumably not show up until the next cost estimate. (The estimated cost difference for providing four lanes instead of two lanes was just under $300 million, based on the Senate report.) Authorizations for ABC systems remained at $1 billion, and other general fund programs remained basically stable except for large increases in forest development roads and trails and in public lands highways.

Other 1966 provisions include a new and separate general fund appropriation for Alaska, based on the premise that the special needs of that state were not being reflected in its apportionment. Emergency relief authorizations were increased, with 40 percent of the new authorization to come from general funds. Also, the language prohibiting use of Trust Fund receipts for highway beautification was weakened to permit amounts equivalent to a 1 percent auto excise tax (a general fund receipt) to be available from the Trust Fund if specifically authorized by law; this was an unexpected outgrowth of earlier attempts to link the auto tax to general fund expenditures. A separate appropriation was authorized from general funds to study highways in the American territories of Guam, American Samoa, and the U.S. Virgin Islands.

Highway Safety. The Highway Safety Act of 1966 established a national agency with safety responsibilities and provided general fund assistance for highway safety programs that had been mandated in 1965. A separate general fund authorization was made for federal research and
development programs. The goals of the act included uniform national
standards and a reduction in accidents. If states did not implement a safety
program, a penalty of 10 percent of their regular apportionments for the
various federal-aid systems was authorized. At almost the same time,
complementary programs to improve the safety of motor vehicles and tires
were authorized by the National Traffic and Motor Vehicle Safety Act of
1966.

Department of Transportation

The administration of most highway programs—including the Bureaus
of Public Roads, Motor Carrier Safety, and National Highway Safety—was
consolidated under the Federal Highway Administration by the Department
of Transportation (DOT) Act of 1966. The DOT act was passed
to assure the coordinated, effective administration of the
transportation programs of the Federal Government. 13/

Almost all transportation activities, except those performed by the
independent regulatory agencies, were brought under the Secretary of
Transportation.

No significant program changes were included in this act, although
the autonomy of the Bureau of Public Roads was reduced by being made part
of a broader-based transportation agency. The DOT act included provisions
encouraging the Secretary of Transportation to develop standards and
criteria for federal investment in transportation facilities, but requiring that
they be approved by the Congress prior to implementation. "Grant-in-aid
programs authorized by law" were excepted from the development of such
standards, and it has been argued that this exception strengthens state
autonomy in the application of federal highway funds. The report of the
Senate Government Operations Committee, however, indicates that concern
over diversion of funds from one mode to another, or impoundment, was the
reason for this exception. 14/

13/ 80 Stat. 931
14/ Senate Report 1659, September 27, 1966 (to accompany S. 3110), U.S.
Code, Congressional and Administrative News, 89:2 (1966), especially
pp. 3374 and 3431.
THE PERIOD OF PROGRAM PROLIFERATION

The 1968 Act

Beginning with the Federal-Aid Highway Act of 1968, the highway acts have been characteristically long and detailed. Whereas the 1966 act took up only 6 pages of the printed statutes, the 1968 act required 22 pages and incorporated a number of new sections, such as those covering safety and beautification. The 1968 act also added a number of specific authorizations at the subprogram level.

The 1968 cost estimate for the Interstate System increased almost $10 billion to $56.5 billion. It was accepted as the basis for apportioning Interstate funds, and new Interstate authorizations of slightly more than $8 billion were approved, stretching the authorized period out through 1974, an additional two years. This was accomplished despite objections in the Senate that the Trust Fund receipts were sufficient to fund current but not increased authorizations, that the estimated cost to complete was low and an update should be awaited, and that it was unwise policy to have Interstate authorizations going beyond the expiration date of the Trust Fund (then October 1972). An additional 1,500 miles was authorized for the Interstate System, bringing the system total to 42,500 miles.

Several new program areas were added in the 1968 Act.

- A right-of-way revolving fund was established to provide funds, without interest, for advance acquisition of rights-of-way. Formerly, advance acquisition had to be funded out of current apportionments that were available. A total of $300 million was provided over a three-year period.

- Traffic Operations Improvement Programs (TOPICS) in urban areas were specifically funded at $200 million a year. The funding was provided for operational improvements on existing streets, as opposed to major construction or reconstruction, so that "greater effort can be made to improve traffic flow." 15/ These funds

were definitely not restricted to major construction projects, since the word "capital" was deleted from the House version of the bill, although the conferees noted that "the deletion of the word 'capital' is not intended to indicate that the TOPICS program may under any circumstances include expenditures for operating or maintenance costs."

- Fringe parking lots were specifically authorized as part of urban projects, and the normal 50 percent federal share was applied. The use of construction funds was thus extended to support carpools and bus transportation.

- A bridge inspection and inventory program was required, primarily in response to the disastrous collapse of a bridge over the Ohio River at Point Pleasant, West Virginia. Background information was to be provided for a program of upgrading bridge safety. It was noted that older bridges "were designed for loads and traffic volumes far below those to which they have been subjected in recent years." 16/ A serious need was noted for methods of controlling overloading, but the federal role was to focus on procedures, so as not to usurp local police power. The attention of the federal government was thus turned to bridge problems; bridge replacement programs were to become incorporated in future acts.

- Several construction projects were explicitly specified for the District of Columbia, and the mandate was given to commence work on them. One of these was the proposed Three Sisters Bridge. This is the first example noted of Congressional specification in statute that particular projects financed by the Trust Fund be undertaken or that construction begin. 17/

Several existing sections of the highway law were extended and strengthened, including the following:


17/ There had been occasional parkway and foreign soil projects specified as individual programs, for example the George Washington Memorial Parkway in the Washington, D.C., area or the Rama Road in Nicaragua.
Parkland preservation provisions (a new section in 1966) were strengthened and broadened, though a mandatory prohibition of the taking of parkland was not included.

Relocation assistance, which could be treated as part of highway construction costs, was considerably increased. The federal allowance had formerly been $200 for individuals and $3,000 for businesses. The 1968 act allowed assistance for 100 percent of actual reasonable expenses up to $25,000. The act specifically included extra payments to both owners and renters where replacement costs exceeded the fair market value at the current location. Specific requirements and payment limits for the relocation program were subsequently supplanted by provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 that applies to all federal construction projects.

State highway departments were instructed to avoid adverse social and environmental impacts of highway construction. Formerly, only economic impacts had been specifically mentioned.

Davis-Bacon provisions regarding payment of prevailing wages, formerly applied only to Interstate System projects, were extended to all federal-aid construction projects. It was pointed out that all other federally funded projects were now covered by Davis-Bacon provisions.

Environmental Policy

Legislation establishing environmental policy has influenced highway programs in two major ways. First, the National Environmental Policy Act of 1969 required the preparation of an environmental impact statement (EIS) for a federal-aid highway construction project. The EIS often showed detrimental impacts that might otherwise have been overlooked and, in any case, its evaluation presented a forum for highway opponents. The Clean Air Amendments of 1970 provided standards for air quality that could be compared with air pollution impacts identified in the EIS. This created additional leverage for opponents of highway construction in urban areas. Second, emission standards for automobiles have been set in clean-air legislation, and the necessity of meeting these standards adversely influenced auto fuel efficiency in the early 1970s. Trust Fund receipts were thereby increased in that period.
The 1970 Act

The Federal-Aid Highway Act of 1970 again represents a quantum leap in both length of statute (32 pages) and number of new programs separately specified and authorized. The 1956 act authorized appropriations for only 8 separate programs: the Trust Fund programs for the Interstate and ABC systems, and 6 minor, general fund programs. The 1970 act contained 34 separate authorizations, although many were rather insignificant.

The 1970 act reaffirmed the decision to press ahead with completion of the Interstate System, and it authorized an additional $10 billion over a period that was now extended to 1976, an addition of two years. The 1970 cost estimate had again increased, this time by more than $13 billion to a total of almost $70 billion, in part due to the mileage added by the 1968 act. The House had wanted to extend the Interstate authorizations to 1978, which would have provided nearly the full federal share of the 1970 cost estimate. In agreeing on the shorter extension through fiscal year 1976, the conferees noted:

The authorizations here do not provide for completion of the Interstate System, but the conferees and the administration are fully committed to its completion. 18/

There was a growing appreciation that inflation would continue to make current dollar projections too low and particularly so several years in the future.

The excise taxes accruing to the Highway Trust Fund and the Trust Fund itself were extended for five additional years to September 30, 1977. Dedicated tax receipts would once again be collected at least as long as funding was authorized for Interstate construction. The funding for a number of programs in addition to the Interstate and ABC systems was transferred to the Trust Fund, and this created further justification for extension of both the taxes and the fund. Also, receipts from excise taxes grew rapidly in the 1960s, reaching $5.4 billion in 1970, and this allowed increased program levels while continuing the same tax rates.

The mix of excise taxes going into the Trust Fund was left unchanged in spite of an updated cost allocation study that showed a significant increase.

disparity between automobiles and heavy trucks in the ratio of tax payments and cost responsibility. Similar disparities had been reported in 1961 and 1965. The largest trucks (five-axle tractor-trailer combinations) paid only 50 to 60 percent of their allocated cost responsibility, whereas light trucks paid taxes that exceeded assigned costs. The shortfall for large trucks was attributed in part to reliance on one-time or annual tax payments such as the excise on new trucks and the heavy-vehicle use tax; collection of these taxes does not increase adequately with increased weight or annual travel level. Later, in 1971, when the auto excise tax was repealed, the excise on light trucks was also repealed. This was consistent with the findings of the cost allocation studies, but it caused a sizable revenue loss to the Trust Fund. 19/

The Trust Fund concept thus remained intact, although it was subject to considerable attack during consideration of the 1970 act. Opponents argued that pollution and ecological problems connected with major highway construction programs were being overlooked and that the focus should be on overall transportation needs, particularly for urban areas. In response to these objections, the legislation broadened considerably the application of the Trust Fund, particularly in urban areas, and brought more highway programs into the fund. For example, despite opposition in the House, forest and public lands highways were financed from the Trust Fund for the first time. Funding these programs from the Trust Fund had been proposed unsuccessfully by several administrations. In general, the House took the position that the Trust Fund should remain at a status quo.

The 1970 act also permitted a number of new uses for the Trust Fund. The most striking of these was the use of funds for construction of public transportation facilities; for example, exclusive bus lanes could be built as part of a highway project.

Among the more important provisions of the 1970 act were the following:

- The Urban System was added as a new federal-aid highway system. It was the first system (other than the Interstate System) to be added since the ABC systems were established in the early 1940s, and it became known as the "D" system. The 1968 and 1970

Highway Needs Reports had suggested many high-priority improvements for urban arterials. The new system was to serve major centers of urban activity, and to connect with, but not overlap, the urban extensions of other federal-aid systems. Trust Fund authorizations were $100 million a year and the apportionment was based on population of the urban area.

- The federal share was increased to 70 percent for the regular non-Interstate programs effective in fiscal year 1974. This was a House provision that envisioned transitional problems for states completing their Interstate construction. This change in federal share appears to have anticipated a major increase in non-Interstate highway programs in the mid-1970s. Otherwise, states completing their Interstate construction would have received much smaller apportionments and should have experienced no problem matching the ABCD monies at the old share.

- States were guaranteed a minimum Interstate System apportionment of 0.5 percent in 1972 and 1973 irrespective of the remaining completion cost. This guaranteed a reasonable funding level of $20 million a year for states nearing completion, which the provision was designed to expedite. Additional Trust Fund authorizations were provided for this guarantee.

- A new section was added for Urban Highway Public Transportation, which permitted the use of federal aid for construction of exclusive bus lanes, traffic control devices, and various facilities to serve passengers on buses and other nonrail modes of public transportation. Project approval was made contingent on avoidance of highway construction and provision of capacity equivalent to the avoided highway project. Basically, this provision authorized substitution of highway-related mass transit projects for standard highway projects and represented a considerable broadening of the use of Trust Fund receipts. The provisions for fringe parking lots in the 1968 act had allowed federal assistance for demonstrations; this was now converted to a permanent, codified program.

- A new Trust Fund program was added for Economic Growth Center Development Highways. To start with, demonstration projects were authorized at $50 million a year from the Trust Fund and were provided with a federal share of 20 percent in addition to the share for regular non-Interstate programs. The purposes of this
program included revitalizing rural areas or small cities, dispersing industrial growth, and encouraging more balanced patterns of population. This program of development highways offered a clear offset to the new Urban Systems program, because the development highways were clearly targeted at smaller cities in rural areas. The demonstration projects were made discretionary to the Secretary of Transportation with some limits on each state's maximum share.

- The use of federal aid was broadened to include the purchase of ferry boats. Construction of federal-aid highways giving access to ferry boats had been permitted, but this provision recognized the ferry boat itself as an important link in a "highway" system.

- The National Highway Traffic Safety Administration (NHTSA) was established and funded in part (two-thirds) from the Highway Trust Fund. This new agency brought together under one roof, separate from the Federal Highway Administration, most of the safety programs.

- The Special Bridge Replacement Program was established to replace important, unsafe bridges. Funding, which was from the Trust Fund, began at $100 million. An inventory and classification of bridges on federal-aid systems was mandated, and the Secretary of Transportation was to establish priorities regarding replacement—that is, no apportionment formula was provided. Since the purpose of this section was to "replace" bridges, repairs were not technically included. This was a Senate-sponsored program, though the House had proposed a minimum expenditure of 5 percent of ABC funds on bridges.

- A rail crossings program, which took the form of a demonstration project, was introduced. The federal share for crossings on the highway systems was 90 percent; the share in other locations was 80 percent. As in the case of bridge replacement, the House had proposed devoting 5 percent of ABC funds, but the Senate favored a separate program, and the Senate's position prevailed. On-system projects were funded out of the Trust Fund, whereas off-system projects were funded from a separate authorization from the general fund. Two specific projects—Greenwood, South Carolina, and the Northeast Corridor—were specified for inclusion in the program. This marked another case in which demonstration funds were directed by statute to particular projects.
Projects in the District of Columbia. The issue of whether particular highway projects should be specified arose in 1970, just as it had in 1968, with regard to Interstate segments in the District of Columbia. The 1968 act had specified that the D.C. government commence work on several projects, including the proposed Three Sisters Bridge which had been delayed by environmental impact objections. That act had said that:

Notwithstanding any other provision of law, or any court decision or administrative action to the contrary, the Secretary of Transportation and the Government of the District of Columbia shall...construct all routes on the Interstate System within the District of Columbia.... Such construction...shall be carried out in accordance with all applicable provisions of Title 23 of the U.S. Code. 20/

In signing that act, President Johnson had stated:

By far the most objectionable feature in this bill is the requirement that the District of Columbia government and the Secretary of Transportation construct all Interstate routes passing within the District as soon as possible....

Fortunately, the Congress has called for construction only in accordance with the applicable provisions of the federal highway law. 21/

The Johnson interpretation was used to delay work by continuing to apply planning and approval requirements. Construction was to proceed only if the segments were found to be appropriate links in a comprehensive transportation plan. In 1970, the Senate proposed repeal of the D.C. directive, while the House urged that construction proceed. The resulting 1970 legislation directed only that these projects be restudied. In addition to resistance from community groups and environmentalists, the D.C. Interstate program became embroiled with funding for the area's Metro subway system. Some Congressmen termed the D.C. highway program as blackmail for release of Metro construction funds.


Opponents of the D.C. provisions in the House argued that legislation regarding the five specific Interstate highways in the District of Columbia violated a House rule designed to prevent logrolling in public works bills. The rule cited reads:

...it shall not be in order for any bill providing general legislation in relation to roads to contain any provision for any specific road, nor for any bill in relation to a specific road to embrace a provision in relation to any other specific road. 22/

Specific highway projects were mentioned in at least four separate places in the 1970 legislation, twice in the act itself, and twice in the report of the House Committee on Public Works. The sections of the act covering rail crossings and economic growth centers both involved demonstration projects, and the projects were specifically identified. The 1970 act provided specific legislative authority for inclusion of demonstrations in connection with research and development programs. 23/ Since the enactment of this provision, the number of demonstration projects specified by highway legislation has proliferated.

The 1973 Act

In the normal two-year cycle of authorizations, a highway bill would have been enacted in 1972. No action was taken, however, because of a sharp disagreement between the Senate and the House on whether the Highway Trust Fund should be used to aid mass transit projects. The Nixon Administration favored more flexibility in the use of the Trust Fund, and proponents of this position stressed the dirth of funds for mass transit compared with the large, guaranteed funding provided highways through the Trust Fund. The opponents of flexible use argued against diverting the use-related highway taxes to mass transit on the grounds that these taxes had been imposed for dedicated highway construction uses. The Administration was also concerned about adding mass transit funds to an increasing level of highway funding. As a result of the stalemate, fiscal year 1974 began without new authorizations for the ABCD programs. A partial ABCD

22/ Ibid., p. 5440. This rule is still in effect; for example, see Rules of the House of Representatives, 94th Congress, Rule X, 1(p).

authorization and a partial apportionment of Interstate funds for fiscal year 1974 was finally approved by a special act in July of 1973. 24/

The Federal-Aid Highway Act of 1973, which was signed into law in August after a compromise on the urban provision had been reached, contained a number of new features providing federal assistance for mass transit. The 1970 act had focused on the problems of the cities, primarily by authorizing the new Urban System for federal aid. The 1973 act also incorporated several important urban provisions.

- Urban System funds were increased to $800 million a year and could be used at local option for a transit project in lieu of a highway project. These Urban System transfers were to be financed primarily from general funds in fiscal years 1974 and 1975; in fiscal year 1976, however, the full Urban System authorization would come from the Highway Trust Fund, whether or not it was used for a mass transit project. This was a significant change in the potential use of Trust Fund receipts, but few transfers have taken place.

- Mass transit projects could be substituted for unwanted urban segments of the Interstate System. The withdrawal of "non-essential" urban Interstate segments would not reduce the system, because new segments could be designated. Funds for the substitute transit project were to be from the general fund, not the Highway Trust Fund, so no funds would actually be transferred to transit from the Trust Fund. The authority to undertake the mass transit project, however, was in effect a transferred authority from the highway program, and at the time of passage it was immediately available as contract authority. Since the urban portions of the Interstate were most controversial and more likely to be withdrawn than roads in the urban (D) system, most substitute

24/ An Act to apportion funds for the National Interstate and Defense Highways... (87 Stat. 145).
transit projects have used general funds and have not caused much true "transfer" of funds from the Highway Trust Fund. 25/

- The use of regular federal aid for highway-related public transportation such as exclusive bus lanes was revised and somewhat broadened.

- Demonstration projects for highway-related public transportation in rural areas were authorized and partially funded from the Highway Trust Fund.

- Urban Mass Transportation Administration (UMTA) authorizations from the general fund were included in the 1973 act. This was the first time that the UMTA program had been funded by the provisions of a highway act. An additional $3 billion in contract authority was provided. This represented simultaneous Congressional consideration of highways and mass transit, although it did not provide real flexibility in application of the Trust Fund receipts.

In addressing the issue of highway construction versus assistance to mass transit, the House Public Works Committee opted to fund both activities, and this was evident in the authorizations of the eventual bill:

It is clear to the Committee that it is simply not just a question of these being alternatives one to the other, but that provision needs to be made for the separate financing of both types of transportation independently of each other, so that both needs can be met simultaneously without one need having to be sacrificed to meet the other one, as would be the case if only one choice could be made. 26/

25/ For further discussion of these urban provisions, see U.S. Department of Transportation, Federal Highway Administration, The 1973 Federal-Aid Highway Act: An Analysis; also Congressional Budget Office, Urban Mass Transportation: Options for Federal Assistance, Budget Issue Paper (February 1977).

Other 1973 Provisions. Although the provisions regarding highway assistance in urban areas and potential substitution of mass transit were probably the most significant features of the 1973 act, a number of other important changes were implemented. In particular, the annual funding level for the Interstate System was reduced for the first time, from $4 billion to $2.6 billion for 1974, in favor of more funds for ABC and other programs.

The reduced annual level was offset by extending Interstate authorizations to 1979, an additional three years. Total authorizations roughly kept pace with the federal share of the 1972 Interstate cost estimate, which had increased to almost $70 billion. The taxes dedicated to the Highway Trust Fund were still scheduled to expire on September 30, 1977. Once again, the authorizing committees acted without complementary action of the taxing committees.

An additional declaration of policy was made, which stated:

... it shall be the national policy that increased emphasis be placed on the construction and reconstruction of the other federal-aid systems... 27/

The regular federal-aid programs were boosted somewhat and, for the first time since 1944, the proportions going to each of the ABC systems was officially changed (rural supplements that were provided between 1970 and 1973 changed the proportions after the fact). Rural primary roads received somewhat higher proportions and urban extensions somewhat lower ones, but considerable additional urban assistance was available in separate programs. This change essentially ratified the rural supplement provided in 1970-1973. Other important features of the 1973 act included:

- The federal-aid systems were to be realigned on a functional basis, that is, based on usage instead of the former criterion of a "planned connected system." As a result of the realignment, which took place in 1976, the secondary system was reduced by one-third.

- Transfers between programs of up to 40 percent of ABCD funds (up from 20 percent) were now permitted, giving the states

considerably more flexibility in the application of federal-aid funds.

- The minimum Interstate System apportionment of 0.5 percent to each state was continued for 1974-1976, overriding the cost-to-complete apportionment and providing all states with a block of funds with which to complete remaining segments. Transfer of these funds to non-Interstate projects was now permitted in those cases where funds exceeded the remaining cost. Thus, these minimum apportionments took on less orientation toward the Interstate System and more toward general highway programs.

- A section was added defining the federal-state relationship. It originated in the House and reflected resistance to federal investment standards for highway projects. The section specified that the provision of federal funds "shall in no way infringe on the sovereign rights of the States to determine which projects shall be federally financed." Also a simplified procedure for project approval by the Secretary of Transportation—certification acceptance—was broadened to reduce "federal red-tape."

- Separate funding for the TOPICS program was repealed and it was incorporated into the urban system (D) program. This meant that funds would no longer be dedicated to operational improvements, although federal aid could still be used for that purpose.

- The Economic Growth Center Development Highways program was extended to all non-Interstate federal-aid systems (not just the primary system) and was made a regular Trust Fund program, thus eliminating the demonstration nature of the projects. The federal share was made the same as for other federal-aid projects, 70 percent. The Senate bill did not contain provisions in this regard. The House Committee on Public Works noted in its report that no real experience was obtained during 1972 and 1973, because the program was not funded or implemented to any significant degree. Even so, it was expanded into a permanent part of the federal-aid program.

- A Special Urban High Density Traffic Program was created for connectors to the Interstate System in areas of concentrated population and heavy traffic congestion. The federal share for these small additions to the Interstate System was 90 percent, to come from the Trust Fund. Several specific Interstate connectors were mentioned in the House committee report.
A new program of Priority Primary Routes was created with Trust Fund financing, providing for priority improvements to high-traffic sections of the primary system that serve as traffic collection and distribution facilities for the Interstate System. An apportionment formula was provided. Approval of this program seems clearly to have been an alternative to further expansion of the Interstate System.

A number of specific projects were mentioned once again in the committee reports. For example:

... many worthwhile projects have been brought to the attention of the Committee, and would appear to be logically eligible for immediate selection. ... 28/

Highway safety programs were considerably expanded in the 1973 act, and essentially all federal funds for safety programs were now authorized from the Highway Trust Fund. Formerly, at least a portion of safety funds had come from the general fund. New categorical programs and new demonstration programs and studies designed to correct roadway hazards and deficiencies were introduced. These included: protection of railroad-highway grade crossings; projects for high-hazard locations; elimination of roadside obstacles, especially installation of breakaway sign and light supports; a pavement-marking demonstration program, including off-system roads; and the federal-aid Safer Roads demonstration program, which was exclusively for off-system roads and incorporated most of the program objectives of the projects for federal-aid roads. The off-system use of Trust Fund monies was unusual, but it could be justified by the fact that gas taxes and other receipts are generated by off-system travel. Numerous other small studies and programs were authorized in this act.

The 1973 act continued three trends in highway legislation: (1) increasing length of the statute, now totaling 47 pages; (2) increasing reference to specific projects and locations for improvements; (3) rapid

proliferation of categorical programs with their own authorizations—55 separate authorizations were identified for fiscal year 1974, as opposed to 34 authorizations for fiscal 1972. In the 1960s, almost all new programs were financed from general funds; in 1974, 38 of the authorizations were from the Trust Fund.

The Budget Act of 1974

The Congressional Budget and Impoundment Control Act of 1974 had several important effects on highway programs and their financing. A critical part of this act, Title X on Impoundment Control, severely restricted impoundment of funds by the Executive Branch. Executive impoundment, whereby funds provided by legislative decisions of the Congress were withheld and not made available for obligation, had frequently been used by the Nixon Administration to restrict highway programs. Under the Congressional Budget Act, the President must submit special messages to the Congress proposing recission or deferral of budget authority, giving the Congress the opportunity to make the final decision on impoundment actions.

The act also changed the budgetary timetable and the dates for the federal fiscal year, which now runs from October 1. This change in fiscal year along with the new budget control measures resulted in some statutory adjustments in the dates of apportionment of federal highway funds. Interstate funds are now apportioned exactly one year in advance (rather than 18 months), while other program funds are apportioned on the first day of the fiscal year (rather than 6 months in advance). In either case, the funds become available for obligation on the first day of a fiscal year.

Most highway programs are financed by contract authority. In order to promote more control over spending, the Congressional Budget Act restricted new contract authority so that it would be effective only when appropriated; at the same time, however, highway programs funded from the Trust Fund were exempted from the restriction on contract authority under a general exception for trust funds with receipts that are generated from taxes related to the programs so financed. 29/ Thus, the Trust Fund programs were, on the whole, unaffected by this provision of the act, but highway programs financed with general funds no longer enjoy contract authority except to the extent provided by appropriations acts.

29/ See Section 401 of the Act. In order to provide some control on Trust Fund spending, appropriations acts have recently contained ceilings on annual highway obligations incurred under contract authority.
The 1974 Amendments

An Emergency Highway Energy Conservation Act was enacted in early 1974; it provided for the 55-miles-per-hour speed limit and a program of carpool incentives. To the extent that these measures conserve energy, they will result in lower receipts for the Trust Fund. Then, the Federal-Aid Highway Amendments of 1974, which were actually approved in early 1975, provided small increases in authorizations for rural roads and established new categorical programs. The increased authorizations for rural highways were justified in the House by railroad abandonments and the need "to accommodate the heavier loads borne by trucks moving goods to market." 30/ No mention was made in the House report of the cost-allocation implications of heavier loads on rural or other roads. Pavement tests have shown that damage increases more than proportionately with vehicle weight, and most Interstate segments were designed to carry the weights specified in 1956.

The two new programs were:

- Off-system roads, with apportioned general funds of $200 million per year. These funds could be used for construction, reconstruction, and improvement, and for some of the off-system safety program. This program provides off-system assistance from the general fund, and it includes the types of projects found in the Safer Roads demonstration program (see 1973 act).

- Access highways to public recreation areas on certain lakes. This modest-scale, general fund program was for routes to be designated by the Secretary of Transportation.

The 1974 amendments relaxed, for the first time since 1956, the size and weight provisions for trucks. The amendments were primarily in response to complaints from truckers regarding the 55-miles-per-hour speed limit, and they proved to be quite controversial. Maximum axle weights were increased to 20,000 pounds, and gross weights to 80,000 pounds. The previous limits were 18,000 pounds and 73,280 pounds, respectively. In order to avoid overstress on bridges, the permissible gross weights were limited by a formula, which is termed the "bridge formula." The effect of these

provisions on actual weights was reduced by the existing grandfather clause that was part of the 1956 act, whereby about one-half the states were already allowed axle and/or gross weights above the federal standards for the Interstate System. Heavier vehicles were allowed, however, by the 1974 amendments. 31/

Once again, a number of specific projects were authorized in the bill—for example, the Overseas Highway in Florida and a high-density connection between modes of transportation in Minneapolis, Minnesota. These projects could have been carried out with federal aid under ongoing highway programs. In addition, the committee reports specified a number of qualifying projects for other programs.

Under provisions of federal highway law, the states must assume the duty to maintain any project constructed with federal aid. The Federal Highway Administration had generally limited aid to major projects that were considered to be "betterments." Although no statutory language was included, the House report did provide clear instruction on this issue:

The Federal Highway Administration guidelines on resurfacing and reconstruction of pavement surfaces have been narrowly drawn to exclude much general resurfacing work. Such distinctions are not necessary...any project involving resurfacing of a substantial portion of a highway should be eligible for federal funding. 32/

This broader interpretation of the guidelines for improvements would increase considerably the number of projects qualifying for federal aid, and thus would broaden the use of Trust Fund receipts.

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31/ There was considerable confusion about certain grandfather provisions in the 1974 amendments that appeared to increase the number of exceptions to the weight provisions. An exchange of correspondence between chief counsels for the Senate Committee on Public Works and the Federal Highway Administration clarified that the only exceptions intended, other than those permitted by the 1956 act, involved situations in which the new bridge formula was more restrictive than weights permitted in 1974. See correspondence between M. Barry Meyer and David E. Wells, December 1974.

Energy Policy

The Energy Policy and Conservation Act of 1975, although not part of the normal highway legislation, will have a significant impact on future Highway Trust Fund revenues. It is probably the most important action affecting revenues since the tax increases in the early 1960s.

This act, which was a response to rapid increases in the price of energy following energy shortages of 1973-1974, set stringent fuel-economy standards for new cars manufactured between 1978 and 1985. (The standard ranges from 18.0 miles a gallon in 1978 to 27.5 miles a gallon in 1985.) Any auto manufacturer who does not meet these standards faces civil penalties that are based upon the degree to which the average fuel economy of its cars falls short of the standards. This law is expected to reduce substantially gasoline consumption in the future. As a result, the rate of growth of Trust Fund revenues will be reduced. 33/

The 1976 Act

The numerous provisions in the 1973 act providing assistance for urban transit projects, together with the National Mass Transportation Assistance Act of 1974, served to reduce the tension between highway supporters and advocates of mass transit. No sizable claims on the Trust Fund for urban transit were to materialize. The philosophy of dedicating highway receipts to highway uses was considerably weakened, but the practical effect on highway program levels was of no great consequence.

The Ford Administration proposed a more consequential challenge to the Trust Fund in 1975. The Administration bill would have restricted use of the Trust Fund to Interstate System projects and reduced Trust Fund receipts from the existing rate of four cents a gallon to only one cent a gallon. Of the three-cent reduction, two cents would have been channeled

33/ The attainment of these fuel-economy standards could reduce Trust Fund revenues from the gas tax by about $3.4 billion over the next 10 years. See testimony of Alice M. Rivlin in Automobile Fuel Economy, Hearings before the Subcommittee on Science, Technology, and Space of the Senate Committee on Commerce, Science, and Transportation; 95:1 (1977); also Congressional Budget Office "Forecasts of Highway Trust Fund Revenues," Staff Draft Analysis (December 1977).
to the general fund, but this money would have been earmarked for highway programs, that would be consolidated into three categories (urban, rural, and safety). One cent would have been repealed upon assumption by the individual states. 34/ An even stronger proposal was submitted by Senators Edward F. Kennedy of Massachusetts and Lowell P. Weicker, Jr., of Connecticut. Their proposal would have abolished the Trust Fund at the end of fiscal year 1975 and subjected all highway programs to normal authorization and appropriation processes.

Both chambers passed highway bills in 1975, but they differed widely. In particular, the House bill emphasized completion of the Interstate System, increased funding levels, and more flexibility for the use of Interstate transfers. The Senate bill focused on consolidation of proliferating categorical highway programs; this bill left unchanged the existing Interstate authorizations through 1979. The 1975 Interstate cost estimate had increased by $13 billion to $89.2 billion. The remaining cost to complete the system had actually increased since 1972, from $33 billion to more than $40 billion; this increase was a result of both cost inflation and the reduced level of funding. 35/ As in 1968, the Senate Public Works Committee did not want to extend authorizations without resolving the question of future financing.

After a lengthy conference, a compromise agreement was reached and finally approved in May 1976. Construction on the Interstate System was authorized to 1990, an additional 11 years, with a provision that 30 percent of the available funds would be used to complete essential gaps in the system during the first two years. This represented a shift back to emphasis on the Interstate program. Although annual funding levels were raised only slightly, total authorizations for the Interstate were increased by $40 billion.

A decision on the long-term future of the Highway Trust Fund was deferred, although the decisive proposals mentioned above were rejected. The conferees had stated that:


The extension of the Interstate program through 1990 does not address the question of the source of funds for construction during that program. The conferees expect that during the next Congress methods of financing highway construction will be considered. 36/

The Highway Trust Fund and its revenues were extended for two years, until the end of fiscal year 1979; no change was made in the mix or level of taxes levied.

Little consolidation of programs was accomplished, but three of the existing categories—the rural primary, the urban extensions, and the priority primary routes—were combined under a new primary system, although funding continued to be reserved for priority primary projects. Safety programs that had been established in 1973 for high-hazard locations and roadside obstacles were also consolidated. In addition, provisions permitting higher levels of transfer between construction and safety programs increased state flexibility and had potentially similar effects to program consolidation. That is, the ability to transfer funds between several small categorical programs is similar to the ability to choose spending priorities for a larger consolidated program. 37/

Two sizable programs for off-system roads were merged. General-purpose aid for off-system roads, established in the 1974 amendments, was continued at $200 million a year from general funds. The program was renamed Safer Off-System Roads, and it included safety projects formerly financed from Trust Funds in the Safer Roads demonstration program of the 1973 act. The Senate bill had contained an expanded Safer Roads program using Trust Funds, but the conference agreement repealed the Trust Fund assistance and moved the safety activities into the general fund program. This reestablished the tendency to finance off-system programs from general funds, even though off-system travel contributes significant taxes to the Trust Fund.

Several provisions regarding the Interstate System were changed in the 1976 legislation.


37/ For further details, a useful summary of the 1976 act was prepared by the Highway Users Federation, Highways and Safety 1976 (May 1976).
The Interstate transfer provisions were amended to permit greater flexibility. Previously, only a mass transit project or another Interstate project could be substituted for an unwanted Interstate segment in an urban area. Now, non-Interstate highway projects were made eligible as substitute projects. The transfer provision was made generally more attractive by providing for escalation of the amount of obligational authority transferred, the basis for which is the completion cost of the Interstate segment withdrawn. The 1973 act had used a fixed cost base for this amount, and the 1974 amendments had provided for escalation up to the date of highway withdrawal. The 1976 act, however, provided for escalation up to the date of approval of the substitute project. Since the approval of substitute projects often requires considerable time, this provision makes transfer significantly more attractive.

Regarding budget authority for Interstate transfers, the provisions of the Congressional Budget Act of 1974 were interpreted to require prior appropriations action since these were general funds.

For the first time, assistance was provided for resurfacing, restoration, and rehabilitation (RRR) for segments of the Interstate System at least 5 years old. Funds totaling $175 million a year were apportioned, and they represented a major new use for the Trust Fund. A similar change was provided for federal aid to non-Interstate construction projects—the change was accomplished by a general redefinition of the term "construction" to include "resurfacing, restoration, and rehabilitation." The change was intended to make clear that major rebuilding and realignment were not necessary to qualify for federal assistance and that most improvements to existing roadway were eligible. The conferees did not intend to include all activities, since they stated:

This change confirms policy established by the Federal Highway Administration, and evidences no intent to fund normal periodic maintenance activities which remain a state responsibility. 38/

38/ Ibid., p. 43.
As in most recent acts, a large number of studies and reports were requested to assist the Congress in future deliberations. Among the most important were:

- A study of optional financing methods for completion of the Interstate System;
- Recommendations regarding the need to provide federal funds for resurfacing, restoration, and rehabilitation (RRR) on Interstate routes;
- A report on essential gaps in the Interstate System;
- A study of the implementation and functioning of the Urban System;
- A report on the need for special federal highway assistance for energy transportation;
- A major report on the nation's transportation needs and policies, for which a new Congressional commission—the National Transportation Policy Study Commission—was established.

SCHEDULED EXPIRATION OF TRUST FUND

Under current legislation, the Highway Trust Fund is scheduled to expire at the end of fiscal year 1979, and most of the highway-related taxes are scheduled to be reduced substantially at that same time. These two events are distinct; that is, the imposition and dedication of the taxes represent separate legislative considerations. The revenue-raising committees are, of course, different from the committees that authorize the highway programs, although their respective bills have been combined on occasion for floor consideration.

Trust Fund Receipts

The Trust Fund receives money by appropriation of specified tax receipts in the Treasury before October 1, 1979. Also, receipts received later but related to tax liabilities incurred before October 1, 1979, are appropriated to the Trust Fund. No further revenues would accrue to the Trust Fund under current law after the end of fiscal year 1979, with the exception of the late receipts mentioned above.
Expenditures

The language regarding expenditures from the Trust Fund specifies that amounts are available for making expenditures "before October 1, 1979," suggesting that a closing balance at the end of fiscal 1979 would not be available for expenditure. Clarification of the method to be used for payment of obligations already incurred will be needed for an orderly transition if the scheduled expiration takes place. The disposition of the large surplus balance should also be clarified. Unpaid obligations at the end of fiscal year 1978 are projected to be approximately equivalent to the balance available in the Trust Fund, so they could be liquidated from existing funds if technical aspects of the scheduled transition are clarified. 39/

The 1956 act contained provisions limiting apportionments to the funds available or projected to be available in the Trust Fund; thus, the apportionment of new contract authority would appear to be limited as well as actual expenditures. The apportionment of Interstate authorizations for 1980, which would normally take place on the first day of fiscal year 1979, would probably be restricted by these provisions. Apportionment of prospective 1979 authorizations for other Trust Fund programs likewise could be constrained. Finally, clarification of unobligated contract authority and its continuing availability will be necessary. The apportionment of contract authority in the highway program largely removes the unobligated apportionments from the discretion of the Secretary of Transportation.

Trust Fund balances, including 1979 revenues, are expected to be sufficient to liquidate obligations arising from all funds authorized through fiscal year 1978. The actual obligation and expenditure of unobligated balances, however, will undoubtedly occur over several years, and transitional arrangements should be made. Basically, the Trust Fund would no longer be available as a financing mechanism after fiscal year 1979.

Tax Rates after the Trust Fund Expires

The taxes that accrue to the Trust Fund are legislated under the Internal Revenue Code (Title 26), and these taxes would or would not persist

after the termination of the Highway Trust Fund as specified in that legislation. Specifically, most of the taxes accruing to the Highway Trust Fund would be either reduced or eliminated as of October 1, 1979. Table 3 shows the rates that would be effective after October 1, 1979, under current legislation. The excise taxes on motor fuels would drop sharply from 4 cents a gallon to 1.5 cents. Rubber taxes would fall by varying amounts; for example, tires would fall from 10 cents a pound to 5 cents. The excise taxes on trucks and buses would be reduced from 10 percent to 5 percent, while the tax on parts and accessories would be reduced from 8 percent to 5 percent. Two taxes would expire—the tax on tread rubber and the heavy-vehicle use tax. One tax would continue unchanged—the tax on lubricating oil for highway use. The remaining tax collections would go into the general fund and be available for general use. The national energy legislation in conference at the end of 1977 contains provisions that would continue the excise taxes on motor fuels, without extending the Trust Fund.

**Implications of Expiration for Highway Funding**

The expiration of Trust Fund financing, if allowed to occur, would change the procedures through which budget authority for highway programs is obtained. The current authorizations, particularly those for the multiyear Interstate program, would not be affected, and new authorizations for fiscal year 1979 for the non-Interstate programs will require Congressional consideration in any case.

At present, the existence of the Trust Fund provides exception from certain provisions of the Congressional Budget Act of 1974 regarding new spending authority. The large majority of highway programs are funded with contract authority utilizing Trust Funds. The full amount authorized is made available for obligation, subject to a sufficient balance in the Trust Fund. Trust Fund expiration would make highway authorizations subject to appropriation before budget authority is provided and, therefore, before obligations are incurred. Specifically, in the absence of the Trust Fund, legislation granting new spending authority in general, and new contract authority in particular, would not be effective without an accompanying appropriations act. The amounts appropriated would not, however, be constrained by the balance available in the Trust Fund, as is currently the case because of the Byrd Amendment.

The receipts accruing to the general fund after the rate reductions take effect would be sharply lower. If the reduced rate structure had been applied in 1976, the level of tax receipts would have been only 39 percent of actual collections, a reduction of about $3.3 billion. Continuing the highway program with lower general fund receipts implies greater deficit spending from the general fund than would otherwise be the case.
### TABLE 3. EXCISE TAXES AFTER SCHEDULED TERMINATION OF THE HIGHWAY TRUST FUND

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<td>Special motor fuels</td>
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<td>Rubber</td>
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<tr>
<td>Tires</td>
<td>10 cents per pound</td>
<td>5 cents per pound</td>
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<td>Tubes</td>
<td>10 cents per pound</td>
<td>9 cents per pound</td>
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<tr>
<td>Retreads</td>
<td>5 cents per pound</td>
<td>Expires</td>
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<td>New Trucks and Trailers (over 10,000 pounds gross weight)</td>
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<td>5 percent</td>
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<td>New Buses (other than transit)</td>
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<td>5 percent</td>
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<tr>
<td>Annual Heavy-Vehicle Use Tax</td>
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<td>Expires</td>
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<tr>
<td>Motor Vehicle Parts and Accessories</td>
<td>8 percent of manufacturer's wholesale price</td>
<td>5 percent</td>
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<tr>
<td>Lubrication Oil (for highway use)</td>
<td>6 cents per gallon</td>
<td>6 cents per gallon</td>
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CHAPTER IV. FINANCIAL ASSISTANCE AFTER 1956

Earlier sections of this paper focused on the formation of the Highway Trust Fund by the 1956 act and the evolution of highway policy since that time. This chapter summarizes financial aspects of federal assistance to highways since the Trust Fund became operable in fiscal year 1957.

Financial commitments toward the highway program can be measured and compared in several ways. Congressional action establishes policy and provides authorizations and appropriations that enable the Federal Highway Administration to obligate and expend funds on behalf of the federal government. The authorized program level reflects the primary Congressional policy and sets a ceiling on the funding that can be provided.

For most federal programs other than highway programs, besides the authorizing legislation, an appropriations act is necessary to provide budget authority so that obligations and expenditures can be undertaken. In the case of most highway programs, however, prior to the Congressional Budget Act of 1974, the authorized program amounts could be made available for commitment (obligation) in the form of contract authority without further Congressional action. This continues to be true of programs financed from the Highway Trust Fund. Thus, highway program authorizations from the Highway Trust Fund and other authorizations providing contract authority prior to the Budget Act of 1974 represent available financial support (budget authority) and reflect in general the actions of the authorizing committees (that is, the Senate and House Committees on Public Works).

The program level actually undertaken can be measured in two ways, obligations and outlays. Obligations reflect the level of contractual commitments entered into on behalf of the federal government. Outlays reflect the actual expenditure of funds, that is, the liquidation of the commitments entered into by the government. Except for occasional recapture of obligations when projects do not go forward, obligations eventually result in outlays. The timing is, however, very different. Obligations represent the time of commitment; outlays represent the time of actual expenditure.
All three of these measures—authorization levels, obligations, and outlays—are presented in Table 4 for the period 1957-1977. The general basis for the figures in Table 4 is the inclusion of all programs authorized in the regular highway legislation. This includes all programs of the Federal Highway Administration, plus a number of highway programs in other agencies. In addition to programs authorized in the regular federal-aid highway acts, there is a substantial general fund program for development highways in the Appalachian Region, and it has also been included. The annual status of the Highway Trust Fund, including receipts, outlays, and balance at the end of each year, is also shown in Table 4. (See Appendix A for detailed notes on Table 4.)

**AUTHORIZATIONS**

Highway authorizations from fiscal year 1957 to date for both Trust Fund programs and general fund programs are shown in the top part of Table 4. Authorizations from the Highway Trust Fund are detailed for the Interstate System and the non-Interstate programs.

Trust Fund authorizations began at a modest level of $1.2 billion in 1957, most of which was for the Interstate System. This first-year amount does not count sizable general fund amounts for programs that in future years were financed from the Trust Fund. All Trust Fund programs are reflected in the $2.6 billion authorization for 1958. Trust Fund authorizations rose quickly to $3.5 billion in 1959, reflecting countercyclical policies. After a reduction in 1961 that reflects shortages in Trust Fund receipts, the total grew steadily, reaching $4.9 billion in 1969. Throughout the 1960s the total authorized consisted almost entirely of the Interstate System plus the ABC programs.

In 1970, several other programs began to be financed from the Trust Fund. As this made the growth more pronounced, the Trust Fund authorizations escalated to $5.6 billion in 1970, and to $6.1 billion in 1973. There was a one-year drop in 1974, because of a reduced Interstate program, but Trust Fund authorizations have climbed steadily since, reaching more than $7 billion for 1976. The last year fully authorized is 1978 at $7.2 billion.

The Interstate System is the largest single component of overall Trust Fund authorizations, and its funding has followed much the same pattern as the Trust Fund itself. The authorized level of the Interstate System began at $1 billion in 1957, and rose quickly to $2.5 billion in 1960. Following a reduction in 1961 (to adhere to the Byrd Amendment), the level increased steadily to $4.0 billion in 1970, and it remained at approximately that
amount through 1973. The program was reduced sharply to $2.7 billion in 1973, in part to provide priority to other highway programs, and it has grown gradually since that time, reaching $3.3 billion for 1977. Interstate authorizations made up about two-thirds of overall Trust Fund programs from 1957 through 1973, but they have been less than one-half since emphasis was shifted to other programs in 1974.

General fund highway programs have coexisted with Trust Fund programs since 1957. Many of these general fund programs are not carried in the budget of the Federal Highway Administration; rather, they are under the supervision of other agencies such as the Departments of Agriculture and Interior. The programs included in Table 4 are those authorized in the various Federal-Aid Highway acts, plus the Appalachian Development Highway System.

With the exception of 1957, when Interstate and ABC authorizations had already been made from the general fund, general fund programs in the years following the formation of the Trust Fund were quite level at slightly more than $100 million annually. Some growth took place in 1963 and 1964, and then in 1965 the major multiyear authorization for Appalachian Development Highways caused a tremendous one-time jump in authorizations from the general fund. Beautification programs began in 1966 and added $150 million a year in their early years, pushing the general fund total over $400 million in 1967. Safety programs were added in 1970, but they were gradually transferred to the Highway Trust Fund; by 1974 this transfer was completed. Also in 1970, the Appalachian program began receiving annual authorizations, making the 1970 total more than $600 million. The latest major expansion in general fund authorizations has been support for off-system projects.

The level of general fund authorizations has been much smaller than those from the Trust Fund. It has risen rather rapidly, however, from $122 million in 1958 (5 percent of total authorizations) to $850 million in 1976 (more than 10 percent of total authorizations), and another sharp increase to $995 million was recorded for 1977. This growth has occurred in spite of the transfer of several programs—for example, safety programs—from general fund to Trust Fund financing and in the face of a growing surplus balance in the Trust Fund.

OBLIGATIONS

Obligations incurred under federal assistance programs for highways are shown in the central part of Table 4. For the majority of programs
TABLE 4. HIGHWAY PROGRAM LEVELS FOR TRUST FUND, GENERAL FUND, AND ALL PROGRAMS, MEASURED BY AUTHORIZATIONs, OBLIGATIONS, AND OUTLAYS: FISCAL YEARS 1957-1977, IN MILLIONS OF DOLLARS a/

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a/ The explanatory notes for this table are presented in Appendix A.

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financed with contract authority, the obligations reflect commitment of budget authority provided through the authorization process. For other programs, and for all general fund programs since the Congressional Budget Act of 1974 became effective, the obligations reflect budget authority provided through the regular appropriations process. Obligation rates are probably the best indication of true program level, although actual expenditures (outlays) are important in determining fiscal impact by year.

Trust Fund obligations have grown fairly steadily throughout the past two decades, from a level of $2.2 billion in 1957 to a peak of $7.9 billion in 1975. Obligations for the Interstate System roughly parallel total Trust Fund figures, except since 1974. The Interstate commitments, which represented 62 percent of all Trust Fund obligations in 1957, fell slightly to 53 percent in 1975, then sharply to 43 percent in 1976. This reflects the increased number of non-Interstate program authorizations and the reduced pace of Interstate construction as the system nears completion. The lower 1976 figures reflect in part the cumulative impact of impoundments during the early 1970s, and in part the lowered authorizations of 1974 onward. The occasional declines in obligation rates during the period generally reflect those years in which authorizations were reduced, but the timing is somewhat variable because of the fact that contract authority became available in the year prior to authorization and remains available for obligation over a four-year period.

Non-Interstate obligations from the Trust Fund were fairly stable during the early years when emphasis was placed on accelerated Interstate construction. After some boosts from countercyclical authorizations in the late 1950s, a level of about $1 billion annually was fairly typical throughout the 1960s. Since 1969, the non-Interstate commitments have grown rapidly from about $1.1 billion to a peak of $3.8 billion in 1975.

General fund obligations for other highway programs have been relatively small; in 1957 they amounted to about $133 million, or about 6 percent of all highway obligations. This level persisted into the mid-1960s, when general fund obligations began to climb sharply. In 1965 general fund programs committed $224 million, and by 1972 the obligation had reached $596 million—still only about 10 percent of total highway obligations. The level has been fairly stable since that time, remaining less than $600 million, until it jumped sharply in 1977. Thus, general fund program levels, though small relative to the Trust Fund totals, have almost doubled as a percentage of total obligations, even though several programs have been transferred from general funds to the Trust Fund.
OUTLAYS

Outlays, or actual expenditures incurred, are shown in the lower part of Table 4. Outlays follow much the same pattern as obligations, but they can and usually do occur over several years following commitments for long-term construction projects. Thus, Trust Fund outlays in 1957 were only $966 million, much smaller than obligations in that year. These outlays grew rapidly, however, to the $3 billion level in the early 1960s and to more than $4 billion in 1965. In fact, in 1965 the Trust Fund outlays were slightly greater than the obligations for that year as bills for projects from previous years were paid. This pattern has continued, with outlays running more than $4 billion annually for Trust Fund projects since 1968, reaching $4.8 billion in 1975 and jumping sharply to a peak of $6.5 billion in 1976, one year after obligations peaked. The highest levels reflect release of highway funds impounded in earlier years.

General fund outlays are much lower, amounting to $126 million in 1957—about 12 percent of total highway spending in that year—and remaining fairly stable for several years into the 1960s when Trust Fund programs dominated. General fund outlays rose steadily from the mid-1960s onward. They were still only 5 percent of total highway spending in 1965, but represented 9 percent in 1970. In 1975 general fund outlays reached $572 million, or almost 11 percent of the total. This increase resulted primarily from the large programs of Appalachian Development Highways and forest development roads, and from the proliferation of other general fund programs such as those promoting safety and beautification.

STATUS OF THE HIGHWAY TRUST FUND

The final section at the bottom of Table 4 summarizes the receipts, outlays, and balance of the Highway Trust Fund itself. The receipts of the various highway-related taxes (see Chapters II and III for detail) have mounted sharply from $1.5 billion at inception in 1957 to $5.7 billion in 1971. Repeal of one tax category and shortage of gasoline resulted in relatively stable receipts for 1972 and 1973, after which uneven growth has continued. An all-time high of $7.3 billion was reached in 1977. The outlays for Trust Fund programs have been discussed already. In most years, receipts have exceeded outlays, though the converse has been true in six years and the recent Transition Quarter. This has led to the accumulation of a surplus

1/ The Transition Quarter formed a three-month bridge during the change in fiscal years, and consisted of July, August, and September 1976.
balance, which mounted rapidly in the early 1970s and reached over $10 billion at the end of 1977.

TWENTY-ONE YEAR TOTALS

Over the period 1957-1977 including the Transition Quarter, a grand total of $92 billion was obligated for programs financed by the Highway Trust Fund; $83 billion was actually expended. Since Trust Fund receipts were $93 billion over the period, a surplus balance of just over $10 billion unexpended is left in the fund. The general fund obligations of $8 billion and actual outlays of $7 billion over this same 21-year period are substantial but relatively modest by comparison with Trust Fund levels.
APPENDIXES
APPENDIX A. EXPLANATORY NOTES FOR TABLE 4

Table 4 in the text presents highway program levels for fiscal years 1957-1977. Since many agencies of the federal government have responsibilities in the highway area, it was necessary to establish a coherent structure for the coverage of these tabulations. That structure is explained in this appendix.

The cornerstone of the tabulations in Table 4 was the regular highway legislation embodied in the Federal-Aid Highway acts of various years. This is the legislative basis for the highway program administered by the Federal Highway Administration (FHWA) and its predecessors. Table 4 also incorporates highway safety programs under the National Highway Traffic Safety Administration (NHTSA). All programs authorized in regular highway legislation and reported in FHWA or NHTSA budgets were included. Indirect programs such as the tax expenditure for state and local gas tax were not included.

In addition, regular highway legislation includes authorizations for several highway programs administered by other agencies. The following programs, authorized in regular highway acts, were included:

- Forest Development Roads and Trails (Forest Service, Department of Agriculture);
- National Park Roads and Trails (National Park Service, Department of Interior);
- Parkways (National Park Service, Department of Interior);
- Indian Reservation Roads and Bridges (Bureau of Indian Affairs, Department of Interior);
- Public Lands Development Roads and Trails (Bureau of Land Management, Department of Interior);
- Rama Road (Department of State).
Many other federally assisted programs have highways as at least one aspect of a multipurpose program. Only two of these were included:

- **Roads and Trails for States, National Forests Fund.** This is a permanent, indefinite appropriation of 10 percent of revenues received from national forests activities. In the budget, these funds are merged with funds for Forest Development Roads and Trails in recording obligations, and it would not be practical to disentangle the two.

- **Appalachian Development Highway System.** This is the only major highway program not authorized in regular highway legislation. With annual obligations running in the range of $150-200 million, this program could not be overlooked even though it is not a regular highway assistance activity.

A number of programs were not included, even though they have at least some identifiable highway component. They are generally multi-purpose activities, and in most cases either obligations or outlays for strictly highway purposes could not be identified or separated from the other activities. For completeness, it might have been preferable to include these activities, but it would have been necessary to estimate many of the items. The amounts involved are relatively small, in any case, and would generally have totaled less than $10 million, though some years could have reached $20-30 million, judging from rough estimates.

Specific accounts identified but not included were: access roads (Forest Service); roads, trails, and parkways construction under the general construction, maintenance, and rehabilitation accounts (National Park Service); road maintenance under the resources management account (Bureau of Indian Affairs); road maintenance under the construction and maintenance account (Bureau of Land Management); general construction and maintenance accounts for Oregon and California grant lands (Bureau of Land Management); motor carrier safety activities in the Interstate Commerce Commission; road expenditures and loans in District of Columbia accounts (other than regular federal-aid programs); payments to counties and states from the National Forests Fund or from revenues received from National Grasslands (Forest Service); and surface accident investigation (National Transportation Safety Board).

It is also recognized that other agencies such as the Department of Defense or the Environmental Protection Agency have major highway-related activities. No attempt was made to include the budgets of these agencies.
AUTHORIZATIONS

Authorizations were based directly on the statutes. When no year or other limitation was specified, the amount was tabulated in the first year available (except that in the 1976 act, no-year authorizations were counted for 1977, ignoring the Transition Quarter if not specified). Of special note:

- Appalachian Highway authorization of $840 million was counted in 1965.
- Indefinite authorization of 0.5 percent incentive payments in the 1958 act were not counted.
- Repayable advances were not included in authorizations, but this item does affect obligations and outlays (net).
- Obligations inherited under 1957 authorizations from the general fund for the Interstate System and the three traditional (ABC) systems were partly paid from the Highway Trust Fund, but no reallocation of the authorizations was made.
- The emergency fund for disaster assistance on federal-aid highways was treated as newly authorized each year at the full annual amount and was counted as a Highway Trust Fund authorization in entirety.
- Interstate System authorizations were counted in entirety according to the statute, even though not all authorizations would be apportioned because of Interstate withdrawals and because most states do not qualify for minimum 0.5 percent funds.
- Indefinite authorization for parkways from the Highway Trust Fund was not counted, although obligations or outlays were distributed as incurred.

OBLIGATIONS AND OUTLAYS

The primary source for obligations and outlays was the Budget of the United States Government for each year in the period. Amounts for 1977 were obtained directly from the agencies involved; they should be regarded as final but subject to correction.
The obligation amount used was net obligations (line 71.00 of the U.S. Budget) or its equivalent; this amount was judged to reflect most closely new commitments of the federal government. This includes changes in selected resources and is not the same as total program cost. In particular, receipts, reimbursements, and recovered obligations were netted from the obligation total. For example, obligations for reimbursable programs were net of reimbursements received. Outlays were taken directly from the budget (line 90.00); expenditures were taken from earlier budget documents.

- Obligations against the Highway Trust Fund in 1956 were not included; they were not during the period covered. These amounted to about $1 billion and are reflected in outlays in later years. By the same token, some contract authority left over from earlier legislation was transferred to the Trust Fund, and obligations and outlays made against it in 1957 and later years were counted.

- Excluded were general fund obligations in 1968 that reimbursed the Highway Trust Fund for an activity already counted as an obligation there.

- Motor carrier safety prior to 1967 was not included. The full amount for motor carrier safety in the 1967 Department of Transportation budget was counted, even though the amount was reimbursed from other accounts (presumably the Interstate Commerce Commission).

- Included were obligations and outlays for temporary advances later netted when recovered.

- Outlays and obligations for Appalachian Development Highways were provided by the Appalachian Regional Commission.

- Refunds of taxes and interest paid by the Highway Trust Fund were treated as negative receipts, not outlays.

- Interest subsidies created by interest-free advances and tax expenditures on state and local gas tax collections were not included.

- Obligations and outlays for the Interstate System were separated from other programs according to Federal Highway Administration data. Fiscal year 1977 amounts for planning and administration attributable to the Interstate System were not yet available, so construction amounts were expanded based on past experience.
APPENDIX B. FEDERAL LEGISLATION RELATED TO THE HIGHWAY PROGRAMS

The following is a chronological list of federal laws relating to highway programs that were mentioned in the text. This list is by no means inclusive of all federal legislation related to highways. For more comprehensive lists see U.S. Department of Transportation, Federal Highway Administration, Federal Laws and Material Relating to the Federal Highway Administration (1976), or America's Highways, 1776-1976 (1976). For each act, the title, date of passage, and U.S. Statute citation are given.

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