THE FEDERAL HIGHWAY PROGRAM

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Of all Federal expenditure programs, the highway program has undergone the most drastic change in recent years, with the enactment of the 1956 Federal highway legislation. The net result is not only a sharp increase in the level of Federal spending for this purpose and in the relative role of the Federal Government compared to that of the States in the highway field, but also in the philosophy of Federal highway finance, which for the first time links levies on highway users with highway expenditures. The program has been widely hailed as a solution to one of the most pressing problems of the present decade; namely, that of traffic congestion. However, several major questions can be raised with respect to the program as it stands, in terms of widely accepted principles of government expenditures and intergovernmental fiscal relations.

The relative roles of the Federal Government and the States in highway finance

Traditionally the financing of highways has been primarily a State-local function, with the States having come to play a dominant part after 1920. The Federal Government first entered the field on a permanent basis in 1916 through the provisions of grants-in-aid to the States for highway construction. While the grants grew in importance over the years, several basic rules were carefully adhered to: (1) The retention of primary responsibility for highway development and financing in the hands of the States, (2) the matching of Federal and State funds on a 50-50 basis for primary highways, (3) the allocation of funds on the basis of a formula geared to expenditure requirements without regard to financial capacity of the States, and (4) the treatment of the expenditures by the Federal Government as a regular budget expenditure, in no way related to revenues from taxes levied upon products, such as gasoline, related to highway use. These were regarded as general revenue levies.

The Federal grant program was designed primarily to stimulate the States to increased highway activity, and particularly to the completion of interstate highways, some links of which were of little concern to the States directly involved. There was almost universal acceptance of the view that the Federal program had been successful in accomplishing its goals. By 1950, however, there had developed two divergent points of view with respect to the future of the Federal highway program. Some State officials—governors particularly—argued that the program was no longer necessary, and that the grants and the Federal levy on gasoline should be eliminated, entire responsibility being returned to the States. On the other hand various groups interested in highway development urged an increase in the Federal program.
This latter point of view won out in the establishment of the 1956 Federal program. The sharp increase in Federal highway expenditures, with 90 percent Federal financing on the interstate network, and increased control over State highway policy, has greatly increased the role of the Federal Government and essentially established a truly Federal highway system, although actual operation, technically, rests with the States.

Without question the new program will speed the rate of highway construction, particularly on the most urgently needed routes between major cities and in urban areas, and on this basis it has been widely hailed as desirable. However, serious doubt can be raised about the justification for such a sharp increase in the role of the Federal Government in this field. A long standing and almost universally recognized rule in the field of intergovernmental fiscal relations is that of the desirability of placing the conduct of each function at the lowest level of government consistent with efficiency of operation and adequacy of financing. In the case of functions in which higher levels of government have some obvious interest, the extent of their participation in financing and control of the activity should bear as close a relation as possible to their relative interest compared to that of the Government in the hands of which actual performance of the function rests.

So far as highways are concerned, the placing of primary responsibility for them in the hands of the States obviously permits adequate efficiency in performance of the function, probably greater efficiency, for the most part, than would be obtained if the function were placed at the Federal level. Secondly, the States have tax sources, primarily the gasoline tax and license fees, which are capable of providing large sums of money for highway finance on the basis of allocation of tax burden according to the benefit rule, which is generally regarded as most equitable in this field. Finally, no extreme "poor versus rich" State problem is encountered, since, in general, the States with the greatest highway needs, per capita, are those with high per capita incomes, and thus extensive car ownership and usage. Some States with very extensive highway mileage per car-mile have somewhat more difficult problems, but the argument for equalization is minor compared to that in such fields as welfare and education.

The original Federal highway-grant program had been introduced essentially because of the slowness with which some States had moved in the development of their State highway programs, and was justified on the grounds that the Federal Government had some interest in an adequate national highway network, for reasons relating to national defense and other factors. But the limitation of the scope of the Federal participation recognized the paramount role of the States. But the 1956 program involves essentially the replacement of basic State financial responsibility by Federal responsibility, so far as the interstate network is concerned. This is difficult to justify on any of the possible bases:

1. In general no greater efficiency in construction and operation is made possible. The Federal Government can enforce certain uniform rules, such as limitation of access, on which State practice might differ, but it is very questionable if the substitution of Federal for State judgment in this field is desirable. The argument over bill-
boards is a case in point. While much can be said for restricting billboards which obscure scenery, in many instances they provide useful information (about motels, etc.) and in other instances help to break the monotony—one of the worst evils of the modern superhighway, which is an excellent means of getting quickly between two points, but deadly monotonous for long-distance continuous travel. In any event a strong case can be made for leaving such decisions in the hands of the States.

2. The Federal Government has no significant additional tax sources for highway finance which the States cannot tap. The Federal program relies primarily upon the gas tax and the truck-use tax, both also imposed by the States; the use by the Federal Government hinders increased State reliance on them. The disadvantages which the States suffer with certain types of taxes, such as the income tax, are not found to any degree with the highway levies.

3. There is in general little or no need for equalization, certainly beyond that provided by the pre-1956 programs. In a general way the States with the most urgent highway needs are the heavily populated, high income, high gas-consumption States, which are most competent to finance their road needs. Some Federal assistance to States with peculiar problems is without question justified, but not to the extent of the 1956 program.

Why, then, did the Federal Government increase its encroachment in the State field to such a great extent? The answer is obvious—the inertia of the States, their failure to increase highway-user levies and adjust highway-fund allocation formulas adequately to permit the construction of urgently demanded highways. The history of State policy in this field is well known, and need only be summarized. Road usage greatly increased in the postwar years, particularly on major intercity routes. Costs of construction rose much more rapidly than gas-tax yields, partly because of the specific rate of the gas tax. Many major roads were obsolete, and completely new roads were necessary. At the same time, formulas for allocation of State highway-user levies gave far too much to rural roads and far too little to major intercity routes and urban expressways, relative to needs.

On the other hand, the States were reluctant to make adequate increases in highway-user tax rates, for several reasons. One was the frequent commitment of governors and legislators against any tax increases, regardless of their nature. Another was the practical political difficulty in changing the obsolete formulas, which would have given a large portion of any tax increase to roads other than those for which the need was most urgent. A third was the frequent vigorous opposition of highway-user groups and oil companies to the increases, partly because of the obsolete allocation formulas. In some States fights over relative increases on various types of users and allocation of increased revenues between States and localities tied up action. Actual policies, of course, varied widely among various States. A number turned to the toll principle to finance most urgently needed routes, but this principle was of limited potential application. A few, such as California, made substantial increases in expenditures for highways. But on the whole many States lagged seriously in meeting highway needs.

As a consequence of State inertia, increasing pressure was placed upon Congress to take action. The administration, although in gen-
eral committed to a philosophy of restricting increases in Federal activities relative to those of the States, accepted the recommendations of the Clay committee for greatly increased Federal participation and urged enactment of the enlarged program. This experience should serve as a warning to the State governments, particularly to State officials complaining about Federal interference in State spheres of activity: If they wish to maintain their autonomy in various fields they must take action to meet the demands of the people for services in the field; otherwise, almost certainly, the Federal Government will move in by default.

What of future Federal-State relations in this field? It is likely to be very difficult for the Federal Government to back out of its heavy involvement, especially in light of the long-term nature of the program established. It is very doubtful if the program will expire in 1972 or in any year in the foreseeable future; State experience has long ago demonstrated the fact that the task of highway building is a never ending one, not one of building one set of highways. In terms of a logical division of functions, the Federal Government should seek to reduce its participation concomitant with an increase in State activity, with decreases in both Federal expenditures and highway-user taxes. But in practice this result is difficult to attain. On the whole, the experience of recent years in the highway field demonstrates very well the problems of obtaining an allocation of functions on any logical basis, and of the importance of expediency and inertia in influencing allocation.

The determination of the level of Federal expenditures

Granted the degree of Federal participation, there remains the question of the determination of the actual level of Federal expenditures. The figures have been in a sense predetermined for a 16-year period in the 1956 act, which was based largely on the findings of the Clay committee. The whole procedure thus far and the structure established for the coming years are of such nature as to preclude any rational calculation of the desirable level of expenditure relative to that for other purposes. There are several facets:

1. The program was based primarily on the Clay committee recommendations. This committee essentially studied the highway needs in an absolute sense, seeking to ascertain the expenditures required to bring the highways up to a certain engineering standard. The committee, several of whose members were directly affiliated with highway transport and construction, was inevitably highway minded, and was in no position to balance highway needs against needs for other governmental and private activities. It is difficult to arrive at a reasonable balance of governmental expenditures for various purposes by any means, but this certainly cannot be done when a particular activity is considered without reference to competing needs, present and future. There can be little argument that many of the new roads envisaged under the program are vitally needed, relative to other possible expenditures. But some persons who have studied the program believe that the projected standards are unnecessarily high in some instances. Many present roads are reasonably adequate for the traffic which they carry; while construction of them to four-lane standards may be "nice," it may be much less important, on any objective evaluation, than expenditures for other purposes. One example is the rule
that there must be no rail crossings at grade; this can produce the ridiculous result of spending perhaps $300,000 to carry a highway across a branch-line spur on which a freight train moves twice a week. A grade crossing with an adequate warning system might be much more sensible economically.

It must always be kept in mind that in conditions of full employment, one activity cannot be increased without a sacrifice of other activities, private or public. If we have more highways we must have less of something else. A reasonable optimum level of highway construction can never be determined without reference to competing needs—yet essentially this has been done in the Federal highway program.

2. The establishment of a fixed program of expenditures by year for the period extending until 1972 tends to rigidify the annual expenditures, regardless of changing needs and changing economic conditions, as noted in the following section. Obviously the figures set are subject to change, but the establishment of them in the law introduces a rigidifying influence.

One factor, continued inflation, will make change in the figures almost inevitable. Already it is becoming obvious that the original sums of money will not permit the building of the planned roads because of higher costs.

3. The establishment of the highway trust fund removes the revenue and expenditure figures from the budget. The result is a further lessening in the opportunity to reconsider highway needs in terms of needs for other governmental activities. In addition the significance of the budget figure as an indicator of Government expenditures is reduced. The States have found earmarking possible without the establishment of separate trust funds; the Federal Government should have likewise. The actual procedure results in very misleading picture of trends in governmental expenditures and the relative importance of various functions.

Full utilization of existing roads

In terms of the overall highway program of the country, one of the serious defects has been the failure to utilize to greatest capacity the existing road and street network; the choice is often considered to be one between present routes as they operate against superhighways, without adequate regard for improving the capacity of existing roads. During past decades two horrible errors were made in highway planning: The routing of highways through the main streets of cities and towns, and the failure to control access to main highways, with consequent ribbon development and congestion. Many present-day routes are reasonably adequate if these bottlenecks can be removed, as, of course, they have in part, though not to an adequate extent. Other roads would be much more tolerable if passing lanes were added at intervals of a few miles, so that cars would not be bottled up indefinitely behind slowing moving vehicles.

A large part of the utilization difficulty, however, rests with defective traffic-control legislation. The whole philosophy of control has been one of slowing down traffic, based on the notion that drivers typically go too fast if not controlled, rather than one of facilitating the movement of traffic at speeds consistent with safety. Speed limits are frequently set excessively low; long experience has demonstrated
that these cannot effectively be enforced, but since some drivers will obey them, the flow of traffic is slowed down, and accident hazards increased. Forty-five-mile limits on main highways and 20-mile limits on arterial streets in suburban areas are as obsolete as the car of 1905 for which they were designed. On the other hand, almost no use is made of effective minimum speed-limit requirements, which would perhaps do more to facilitate the movement of traffic and reduce accidents than any other move. In urban areas the use of 4-way stop signs instead of timed signals is a major source of delay, as is the failure to time signals properly, and use of signals and stop signs for the deliberate purpose of retarding the flow of traffic.

It is not necessarily argued that it is within the proper sphere of the Federal Government to attempt to force action on the part of the States on these questions. But the failure of the States and local governments to act has directly resulted in higher Federal expenditures for highways than otherwise would be required, and some greater effort to obtain cooperative action might be attempted by the Federal Government.

Fiscal policy implications

The long range Federal highway program has significant fiscal policy implications; while it offers potentialities for aiding the attainment of economic stability, as it is now formulated it offers greater danger of increasing instability, particularly by contributing to further inflation. The program has unfortunately been planned without regard to the state of economic activity. To the extent to which inflationary pressures continue over the next several years, the increased highway expenditures will tend of course to aggravate the upward spiral. This will be offset to a certain extent by increased collections of highway user levies, but these will in part enter into business costs (truck user levies, for example), and thus the anti-inflationary effect weakened. In other words, a period of continuing inflation is, from a fiscal policy standpoint, an undesirable one in which to increase governmental expenditures of this type. On the other hand, however, the construction of urgently needed roads cannot be postponed indefinitely, inflation or not. Should large-scale unemployment develop in the immediate future, the program would of course prove to be a stabilizing one.

On the whole, while fiscal policy aspects cannot be permitted to dominate the shaping of a program of this type entirely, it should be possible to build certain stabilizing influences into the program, by varying the annual expenditures in terms of the state of business conditions. The most urgent projects must be built regardless of inflation, but the less important ones can be postponed for a time to determine if unemployment does develop. In depression periods the rate of construction can be speeded up materially; the program essentially provides a backlog of depression projects of a highly useful character, if it is properly employed. It must always be kept in mind that many highways and other projects which are marginal or submarginal in periods of full employment and inflation may be economically justifiable in depressions, in which necessary manpower and other resources would otherwise be idle.
The special problem of urban traffic congestion

The most pressing highway problem is that of extreme rush-hour congestion in large metropolitan areas, one so bad that it brings traffic to a complete standstill at times, and causes serious loss in time. This is likewise the most difficult and expensive to solve, because of the high cost of new expressway construction in metropolitan areas. A substantial portion of the new Federal highway expenditures will be devoted to this problem, in contrast to past policy, by provision of large sums for the building of urban area expressways.

Unfortunately, however, there is increasing doubt on the part of many experts in the field whether expressways, although highly desirable in many instances, will solve the problems. The construction of them often merely shifts the point of congestion and increases chaos in the downtown areas by pouring still more traffic into streets of limited capacity. Basically the automobile is a highly inefficient device for carrying large numbers of persons into a congested area in a short period of time; rapid transit facilities of some form are much more effective, and, where available, preferred by large numbers of persons for travel to and from work and shopping, although typically the persons prefer the use of their cars for other forms of travel.

Unfortunately, however, such facilities are almost never in themselves profitable, and therefore additional ones cannot be built by private enterprise; even existing ones, built at much lower cost figures, are typically unprofitable. From an overall cost standpoint, however, it may be far cheaper to build additional transit facilities and insure continued operation of existing ones than to concentrate expenditures on expressways alone. But unfortunately the Federal program provides for aid for expressways only, and thus not only fails to aid the metropolitan areas in the determination of the optimum solution to their traffic problems, but actually favors one method over the other—one which in many instances may prove in the end to be self-defeating.

Quite apart from new facilities is the question of maintaining existing services, particularly railway commuter service into large cities. This service is typically unprofitable, and is clearly constituting a drain on the none too adequate earnings of the railroads from other services. This is a minor problem for a large and relatively profitable system with limited commuter service, such as the Burlington; it is a very serious one for such roads as the Long Island, the Pennsylvania, the New York Central, the Jersey Central, the New Haven, and the Chicago & North Western.

Almost certainly a crisis will arise in this field in the next decade; without public support this service will face abandonment, yet such an occurrence would have catastrophic effects on traffic problems in such cities as New York, Boston, Philadelphia, and Chicago. The notion that rail commuter service is "obsolete" and "outmoded" is not borne out by the facts, nor by the evidence that despite the great increase in auto ownership, rush-hour rail commuter service has remained very stable for a number of years, and in recent years has tended to rise.1 The same pattern is found on rapid transit lines of

1 Passenger-miles traveled by railway commuters have increased each year since 1954 and are now substantially higher than the 1936-40 average, despite reduced service available. These figures obscure the rise in rush-hour traffic because of the tendency of non-rush-hour traffic and that on Saturdays to fall.
most metropolitan areas, while surface lines, caught in the same congestion that has strangled auto traffic, have lost business sharply, despite extensive modernization.

It is highly desirable that so long as the Federal highway program is committed to aid in solving the urban area traffic problem it assist not merely expressways but rapid transit facilities as well. While these are not profitable in themselves (as many highways would not be if operated on a toll basis) their contributions to the lessening of traffic congestion and thus of expenditures on expressways may be very significant, and render them entirely justifiable, economically. This is not to suggest, that expressways should not be built, but merely that Federal assistance be given to the development of an integrated system of both expressways and rapid transit facilities, using each to the optimum, so far as the latter can be determined. The present one-sided policy may easily aggravate the problem it sets out to solve.

Other aspects of passenger transportation policy.

Apart from the question of highway expenditures is that of Federal expenditures for other forms of transportation, particularly air transport. The Federal Government has provided significant assistance in the development of commercial air transport, to the point at which most of the major airlines are now able to stand on their own feet financially. As a consequence of the rapid growth in air transport, rail intercity passenger transport has lost ground rapidly, until the point has now been reached at which some experts feel that intercity rail passenger service will vanish entirely, except in special circumstances, over the next several decades. Federal policy of aiding the airlines has of course contributed to this decline, as have certain other policies, such as increased trucking of mail by the post office in recent years. The time has come at which overall Federal policy affecting passenger transportation generally needs review. There has been a tendency in the past to aid one type of service without regard to the effects of the aid on other forms; an integrated review of the whole question, in terms of the requirement for various forms of passenger transport in light of defense and other needs, is required.

Summary

1. The Federal highway program established in 1956 will undoubtedly stimulate highway development. But it involves a very substantial increase in the scope of Federal relative to State activities in this field, an increase for which there is little justification, except inertia on the part of the States.

2. Return of increased responsibility to the States in this field would be highly desirable, in terms of usual principles of allocation of functions, but is very unlikely to occur.

3. The experience in the highway field should serve as a warning to the State governments in other fields that failure on their part to provide widely desired services will lead to Federal intervention in these fields.

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2 In some instances a rapid transit line can be built in the median strip of an expressway at very low cost. This is being done on the Congress Street Expressway in Chicago.
4. Federal highway expenditures under the new program have been determined independently of relative needs for other activities. This policy cannot possibly lead to a reasonable optimum determination of relative expenditures for different purposes.

5. The removal of the revenue and expenditure figures from the Federal budget not only interferes with future review of expenditure levels, but also results in a misleading picture of governmental activities.

6. A sharp increase in highway spending in a period of inflation is obviously contrary to accepted principles of fiscal policy. On the other hand, the demand for highway facilities is so great that their construction, in large part, cannot be deferred until a period of unemployment. It should be possible, however, to adjust annual expenditures somewhat in terms of economic conditions, instead of adhering to a rigid prearranged schedule of annual expenditures. The highway program provides a useful backlog of projects for immediate construction in a severe depression.

7. A serious defect in the program is the failure to provide for assistance to urban area rapid transit projects, so that an integrated program of expressways and rapid transit lines may be developed. The emphasis on expressways alone may aggravate rather than solve some aspects of urban traffic congestion.

8. Federal expenditures affecting passenger transportation generally require review to permit an integrated overall picture of their effects, in terms of future needs for various types of passenger transport facilities.