bars, and other concessions are a distinct problem. The Shaker Heights Rapid Transit Line converted its affluently located prime suburban car-stop shanty into a creditable food service activity and waiting room with plaudits all around. On the other hand, boarded up newsstands, leaking drink machines, and litter are evidence that simple rentals from these claptraps are insufficient to justify them. It is a matter of proper discretion, management, and supervision. The last 20 lean years for transit may have eliminated too much management and supervision from the ranks. The overhead of North America's most successful system is higher than that of most of the other systems, even though its cost per passenger is lower.

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In analyzing potential transit riders, we must recognize that there are 2 types of people: those with access to the automobile and those without such access. The former group can be expected to choose transit only when the service being offered, in terms of all of its aspects, is superior to that available from the automobile. To compete with the automobile for a particular trip, transit must provide a product that is superior in the eyes of the consumer. Each trip is a discrete occurrence in time, and a person who chooses to use the bus, train, or automobile for a particular purpose, such as to go shopping, will not necessarily make that same choice for another purpose, such as to go to work or to visit relatives.

The other group presents an entirely different type of problem. Those persons do not have alternative means of transportation and are unable to drive an automobile by reasons of age, income, or personal handicap. They must look to public transportation for mobility, and they are finding that their mobility is declining. If there were no public transportation network, a substantial portion of the population would be deprived of the means to travel to workplaces, shopping areas, medical facilities, and places of recreation. Many people also find it more economical to use public transportation than to maintain an automobile solely for occasional trips.

Because transit serves 2 basic markets, the questions are, How do we keep viable the systems that we have? How do we improve them? Should we expand them or, where appropriate, build new systems? To proceed with any of these courses presumes a public policy decision that some form of public transportation is a desirable or essential service for urban areas.

For approximately two-thirds of our nation's history we have had public transportation services in our cities. These have included horse-drawn omnibuses and rail cars, cable cars, electric streetcars, trackless trolleys, gasoline and diesel buses, subway and elevated trains, and even monorails. Transit has been around for as long as 145 years and has frequently shaped the development of cities.

Public transportation throughout the nation has declined, however, since the early post-World War II period. The decline actually began as early as the 1920s and 1930s, when transit companies recognized that they were losing their monopolistic position with increasing automobile ownership and rapid development of paved streets and highways.

During World War II, the high level of industrial activity and the shortage of automobiles, tires, and gasoline for civilian use forced people to return to public transportation in large numbers. Despite shortages of equipment, parts, and personnel, the transit industry was able to mobilize its resources to meet the demands for service. Most of the transit operations were privately owned during this period, and most operations were profitable and remained so for several years after the war ended.

The trends that affected the role and use of public transportation in the prewar period emerged again after the abnormal effects of the wartime economy and immediate post-war readjustments stabilized. In most metropolitan areas, the period from 1948 to the present is characterized by a continuing downward trend in the use of public transportation. The rate of decline varied from one area to another. In a few instances, individual companies showed increases in riding for one or more years. From about 1950, however, none of these increases has been more than short-term interruptions in a general downward trend.

Transit usage nationally has declined from 13.8 billion passengers in 1950 to 5.5 billion in 1971, a loss of well over 50 percent, according to figures collected by the American Transit Association. Not only has the usage declined but the industry is no longer profitable. On an industry-wide basis, losses have occurred each year since 1963; nation-wide losses were more than $400 million in 1971. These continuing losses have accelerated the trend toward public take-over of existing private bus operations as a means of preserving these services for the public.

Thus, until comparatively recently the transit industry was generally viewed as another branch of America's capitalistic tree—as a business rather than as a social service. The transit industry, however, has moved from a once highly profitable monopoly with large capital investments and relatively small labor costs to a highly competitive, labor-intensive industry that, in many instances, has become unprofitable and has been taken over by public agencies because it serves a basic need of the people. In 1972, more than 150 of the 1,000 or so transit systems were operated by local or state agencies. These publicly owned systems carry approximately 85 percent of the 5.5 billion revenue passengers.

Our fundamental problem, however, is not the trend toward public ownership but the amount of the operating deficits whether ownership is public or private. In 1971, according to the American Transit Association, urban transit systems lost some $411 million. My understanding is that, when suburban railroad losses are included, the total exceeds $500 million. Without the money to pay the bills, the buses and trains will stop rolling. If this happens, a few may be able to travel by automobile and a few even by bicycle or foot; but the rest will be denied the mobility needed to survive economically in our society.

State and local government efforts to subsidize public transportation are substantial and have existed for many years. A U.S. Department of Transportation report (1) stated that the known deficits of a sample of transit properties with local financial assistance programs were $205 million in 1970. Although the aggregate local effort is probably considerably more today, the greatest deficiency of the present subsidy efforts is certainly the inadequacy of funds. State and local governments are notoriously hard-pressed to find funds for the full spectrum of public programs and yield to demands for transit subsidies only after the emergence of a crisis that threatens intolerable service reductions and fare increases. Typically, such subsidies constitute a "bare-bones" approach and fall short of the total revenue needed to maintain good service. The programs are often viewed as stopgap solutions to an emergency, to be replaced by a longer term program. This is especially the case where subsidies are given to privately owned operations, where the intent of the program is to buy sufficient time in which to work out a more permanent arrangement.

The federal government has recognized its responsibility to assume a major role in a program for renewing, improving, and expanding the physical plant and equipment of public transportation systems in urban areas. Thus, it is now an established national policy that continuation of public transportation services is essential for the welfare of urban regions. The federal role, however, has been limited primarily to capital outlays for purchase and improvement of public transportation systems; and, although that is welcomed, it arrived late in the history of the decline of the industry. The operating expenses, however, are now the critical problem because they are increasing and causing deficits that are getting beyond the amount that state and local governments can handle from their own resources.

The experience of New York City with financing transit during the past 2 decades has been dramatically summarized in testimony to Congress (1) in support of a federal program of operating subsidies, which I believe is worth noting at this point:

> When the New York City Transit Authority was created in 1953 the State Legislature mandated that its operations, except for capital cost, be on a self-sustaining basis. Direct operating subsidies were prohibited by law.
>
> In that year the fare was increased from ten cents to fifteen cents. The next fare increase of five cents was put into effect in July 1966. The twenty cent fare lasted three-and-a-half years. In March 1968, the Metropolitan Transportation Authority became the corporate parent of the New York City Transit Authority. The law also was changed to permit municipal subsidy for transit operators.
>
> In January 1970 rising costs forced an increase in the fare by ten cents to thirty cents a ride, fifty per cent above the prior fare.

In 1971, the projected deficit of the New York City Transit Authority for 1972-73 was about \$440 million. Without subsidy, fares on the transit system would have been increased by 5 percent to 45 cents and fares on the Long Island Rail Road and New Haven commuter services would have also increased by 50 percent. In response to this crisis, the mayor, the comptroller, the leaders of the city council, and the chairman of the MTA formed a committee that, with the cooperation of the governor and the legislature, developed a program to keep the increase on the rapid transit lines to 5 cents and on the Long Island Rail Road to $16\frac{2}{3}$ percent. This program involved doubling tolls on the bridges and tunnels of the Triborough Bridge and Tunnel Authority, producing \$50 million a year—\$25 million for the transit system (in addition to money already being provided) and \$25 million for the commuter lines. The city agreed to subsidize the MTA's operations to the extent of \$200 million during the next 2 years, despite the fact that it did not have funds in its budget for this purpose! The city would use temporarily \$100 million out of its sinking funds, and the state agreed to lend the city \$100 million in 1973. This program, however, was recognized as a stopgap measure to meet a crisis until such time as a long-range solution to the critical financial difficulties facing the city's public transportation system could be found.

The pattern of rapidly rising operating costs has been the same elsewhere in major urban areas throughout the nation, and in some cities fares have risen to 45 and 50 cents with drastic effects on the use of transit services. But it is not only a big city problem. The suburbs are also facing a crisis in maintaining essential public transportation services. Nassau County has reached the point where fare increases and service reductions alone cannot maintain our bus operations. The 3 largest bus operators have been receiving public subsidies since the beginning of 1972. The subsidies do not, however, provide for any improvement of services; they buy time during which a program can be developed to cope with the problem. Experience here has also shown that capital grants to assist the carriers in the purchase of new equipment have not relieved the bus companies of sufficient operating burdens to enable them to continue to sustain their operations from passenger revenues. Accordingly, Nassau County called for take-over of the 10 privately owned operators by a public agency in order to maintain and improve the services. Public take-over will not, however, eliminate the need for operating subsidies, which are expected to cost the county \$500,000 to \$1 million each year.

Several mechanisms have been proposed by various people in the transit industry for implementing a federal program of assistance for operating expenses. My preference at this time, based on analysis of various proposals and my experience in the administration of state and local subsidy programs, is for a federal-aid formula that is relatively simple to administer, egalitarian by its very nature, and responsive to the productivity of the system in carrying passengers, which is the principal function of the public transportation industry. Accordingly, I propose that the federal funds be distributed through state and local agencies on the basis of the number of passengers carried. I do not say that there are no other possibilities, but the alternatives that have been proposed require data-reporting mechanisms that do not exist on a regular basis for many operations and would be costly and time-consuming to implement.

I cannot overemphasize the need for an administratively workable program. If the distribution of federal subsidy were to be based on actual cash losses or some definition of operating deficits, whole armies of auditors would be needed to ascertain the figures, not to mention the monumental job of redesigning the "uniform" accounting system or establishing one. I think we have to accept the fact that the needs are real, that the operations are losing money, and that in most instances the managements are operating their systems as frugally as possible.

The report by the U.S. Department of Transportation (2, p. 4) recognized that "extensive standards and controls would be extremely difficult to administer and could generate a great deal of friction and conflict with local officials." But, then, it went on to say that "granting funds without any performance standards would provide no assurance that they were being used effectively or even distributed equitably."

Not only do I take issue with the last sentence but I find a major inconsistency with the next:

> Certainly, some form of general revenue sharing would undoubtedly be a more effective way of providing financial assistance to hard-pressed State and local governments since the funds could be used to meet any local need, including transit, without having to favor transit activities in order to qualify. Furthermore, a relaxation of restrictions on the rigid categories of Federal funds currently allocated for transportation purposes would also increase State and local ability to respond flexibly to their own concepts of need and priority. In the meantime, public transit needs must be met in one form or another if it is to survive this transition period.

The concept under the department's recommendation for general revenue sharing is one of total absence of controls or restrictions over the expenditure of funds granted to state and local governments. What is the need for performance standards at the federal level if funds are granted to state and local governments for the specific purpose of financing public transportation services?

The opportunity exists right now for the federal government to share in the financing of local transit systems at a time when the need to preserve the services is most critical. Certainly, it would be better to get started immediately and adjust the program guidelines as experience deems necessary rather than to allow cessation of services and exorbitant fares to erode the traffic before some utopian program is designed and implemented. When we embarked on an interim emergency bus subsidy program in New Jersey in 1969, we set out to restore several lines that had been discontinued prior to passage of the subsidy legislation as well as to maintain those operations that were threatened with termination. Our experience with the restored services indicated what might be expected: The longer the period of time was that the service was lost, the fewer was the number of former passengers regained. Although that program was admittedly and purposely designed to preserve the status quo and included no appreciable service improvements, it accomplished its purpose in stabilizing what had been a rapidly deteriorating situation, thereby providing time in which a more permanent program might be devised.

In my view, the most desirable immediate mechanism for implementing an operating expense subsidy is one that recognizes the subsidy effort that is already being made by state and local governments. The $400 million subsidy program that the Senate passed represents a small portion of the transit industry's $2.5 billion annual operating costs. It is also less than the present operating deficit so that the federal government is not being asked to shoulder the entire burden. If we project the total transit operating deficit, including commuter railroad services, at an annual level of $600 million, the $400 million of proposed federal funds will constitute two-thirds of the total deficit; existing state and local effort will cover the remaining one-third. There is, of course, a precedent for this matching share ratio in federal-aid programs for urban transit, and I suggest that this might be mandated in the program as an integral part of the financing mechanism, as it was in the Senate-passed version of the subsidy legislation. In this way, localities that seek federal funds to finance new or expanded transit services would have to match the proportionate effort that is being expended by other state and local governments to support existing services.

Several critical questions have been raised concerning the operating subsidy. One involves incentives to perform under a subsidy, and I believe this is closely related to 2 other topics: (a) the interrelation of service cost and the quantity and quality of service and (b) the role of local, state, and federal governments in setting standards, funding, and administration.

First, we should note that federal subsidy—in the magnitude of 7 or 8 cents per passenger—is not going to encourage transit system managements to provide unnecessary services just to get federal funds. Increased services will be provided to the extent that the increased patronage generates sufficient revenues through fares, local support, and federal payments to equal or exceed the direct marginal costs. In simple terms, no one is going to seek a loss of 10 cents per passenger in local funds to gain an 8-cent federal payment.

As to the matter of the fare level versus the level of service provided, I believe that the proposed program will lessen the pressure for fare increases and service curtailments. After all, one feeds on the other. With relatively stable fares, traffic will tend to stabilize, encouraging service improvements and attempts to seek new patronage. This becomes, therefore, an incentive to attract new patronage rather than to discourage passenger utilization, which is the case when fares must be increased and services curtailed in order to live within overly stringent operating budgets.

I believe that the most effective supervision would be at the state and local levels and that the federal role should be limited to that of distributing funds to these public agencies on the equitable and easily auditable basis of the number of passengers carried. Where local agencies are already organized and prepared to administer the program, particularly in the larger cities but also in many suburban areas, the administration should be at that level. Where no local agency is already involved or prepared to do the job, then the administration would be solely at the state level. These are the units that can supervise the operations under subsidy without creating an unreasonable and unnecessary set of standards and controls that would constitute a cumbersome and costly bureaucracy if applied uniformly throughout the nation by a federal agency. Such standards and controls would be a poor substitute for good management and administration at the local level.

I would propose one restriction, however, and that concerns those instances in which a privately owned transit service is earning a profit. These companies usually enjoy a franchise that allows them to operate one or more routes where traffic is unusually heavily concentrated and are not required to service other, unprofitable routes in the area, as would be the case in a unified system. Although it is doubtful that this would be permissible under the intent of the federal legislation or that any local agency would want to spend its available funds unnecessarily, having the restriction clearly stated at the federal level would avoid any controversy.

I believe that the Department of Transportation's report recognized the desirability of providing funds to state and local agencies without major restrictions in the recommendation for general revenue sharing. I suggest that the same concept be applied here, only in an immediate functional program that will ensure the adequacy of funding that is needed now in order to maintain present levels of fares and service.

Another question that has been raised is the effect of the subsidy on the collective bargaining process. Subsidy will not change the basic ground rules of the collective bargaining process. The position has already been established that it is management's job to find the funds to meet labor's legitimate demands. The wage levels have gone up in relation to the general economy, not in relation to the profit or loss status of the transit industry. I do not foresee the availability of federal funds to cover a fixed amount of existing deficits as a stimulant to clearly unreasonable demands by labor.

Fare-box revenues will continue to be of the greatest relative importance in the financing of transit operations and will increase with increasing patronage even though fares are kept stable. The industry is calling not for a major rollback of fares or free rides but for fare stabilization. Other non-fare-box sources of revenue, such as charter, other special operations, and miscellaneous revenues, are not very significant in the total picture but can vary widely among individual systems. For example, charter and other special operating revenues are practically nonexistent on commuter railroad operations, rail rapid transit systems, and some large municipal bus operations. On the other hand, these revenues amount to approximately 9 percent of the total revenues of the nation's largest privately owned public transit system, Transport of New Jersey; about 20 percent of New Jersey's second largest operation, Inter-City Lines; and almost that much on the 10 privately owned bus systems in Nassau County. These revenues can be quite significant to a specific locality that is contemplating assistance to, or direct operation of, its public transit system. Accordingly, I believe the choice should be left to the state or local agency as to whether it will expect to include continuation of charter service and other special operating revenues in its financing plans. The local agency is in the best position to know local competitive conditions and to determine the economic nature of the operation with or without such service.

Finally, there is the question of public versus private ownership and operation of public transit services. As I noted earlier, publicly owned systems are dominant in terms of the number of transit passengers carried but not in the number of systems operated. The issue, with respect to operating subsidies, is usually not whether operating subsidies will be required but how much the amounts will be. If the subsidies are designed as a permanent program and calculated to make the private operator whole, this includes depreciation and an adequate return on his investment. It becomes a matter of subsidizing a private profit with public funds and agreement on depreciation policies. The alternative, of course, is for the public agency to acquire the property and calculate subsidy needs based on operating needs, with or without a capital replacement charge. With most of the major transit systems now under some form of public ownership, and the trend apparently continuing, I do not view this as a major issue in the debate over implementation of a program of federal operating assistance for public transportation systems.

The immediate problem is just that—implementation of a program that will get the funds where they are needed quickly.

REFERENCES

1. Feasibility of Federal Assistance for Urban Mass Transportation Operating Costs. U.S. Department of Transportation, Nov. 1971.
2. Ronan, W. J. Statement to the Subcommittee on Housing, House Committee on Banking and Currency, Feb. 23, 1972.

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By almost any measure, the urban transit industry has been in a decline for at least the past 20 years. Employment, fleet size, and number of passengers carried have all fallen. Although gross income has remained roughly constant in the recent past, this appears to be due largely to fare increases just offset by the decrease in number of passengers. The conventional wisdom is that the industry is sick and needs substantial subsidy in order to survive.

As part of the Urban Mass Transportation Assistance Act of 1970, Congress ordered the secretary of transportation to study the "feasibility of providing Federal assistance to help defray the operating costs of mass transportation companies in urban areas." The study conducted under that mandate turned up a number of interesting facts about the industry, some of which (a) are at considerable variance with the conventional wisdom and (b) raise serious issues about the federal role in urban transit. This paper reports