

# Resource and Financial Management: Some Persistent and Perplexing Programming Problems

*Raymond T. Schuler, New York State Department of Transportation*

Financial management is a broad and all-encompassing subject and can be as profound and controversial as whether to continue the Highway Trust Fund or as simple as how to correctly complete a travel voucher for attending a conference. Financial management must deal with questions of accounting, budgeting, taxation, economics, long-range planning, forecasting, and a host of others. Out of this broad range, I will examine what I believe to be four of the most central and fundamental issues that are essential elements in forming the resource basis to finance a transportation program. These issues are level of funding, structure and sources of funding, allocation of funds, and control and continuity of funding.

This paper will examine each of these issues from a general perspective to identify what the major problems are, what approaches have been followed in the past to solve these problems, and how successful the solutions have been. I will then set out New York State's philosophy and experience under each topic. This may provide a start toward discussions of potential, desirable, and workable methods to deal with these 4 central issues.

First, I should like to make some general comments about the overall environment that we work in and that we must deal with. Of the many factors that are present in the world of transportation program planning, management, and analysis, the following are ever present, cannot be dismissed or ignored, and must be understood and accounted for in all actions.

1. Complex and conflicting organizational structures. Conflicting responsibilities within the department of transportation can make it difficult to reach the best solution to a specific transportation need. Effective transportation solutions may also be made difficult by differing opinions and priorities among the legislative, executive, and judicial branches of government and the various levels of government: federal, state, regional, and local. An example is the situation many transportation departments are currently facing in trying to get the UMTA transit funding program under way. So many bases have to be touched that, even if all of the transportation and other officials at every level of government agree on the worthwhileness and urgency of a specific project, too much time and effort are spent in securing the funds.

2. Complex nature of transportation projects. A transportation project usually is

not a simple, isolated entity. Improving a highway facility can affect numerous other social, economic, and environmental aspects. We must also consider alternative uses of the scarce resources that a given project would require both before and during the programming process. Unfortunately, the funding structure for transportation projects is usually not flexible enough to completely accommodate the complex nature of these projects.

3. Continual change and uncertainty. Even if we lived in a fixed world, solutions to problems would still be difficult. But we do not, and the difficulties in determining the appropriate course of action to follow become compounded. Problems such as inflation, recession, energy, and economic development seem to get worse, develop more quickly, and entangle more and more concerns and interests. Better planning might make us somewhat more prepared for the future, but we will never be able to foresee all contingencies. Therefore, we must be ready for the unexpected and be more flexible in the face of change.

## LEVEL OF FUNDING

The first issue to consider in resource and financial management is the appropriate level of funding for transportation. The questions are, What should be the level of funding available for transportation improvements? How should it be determined?

The usual answer is frequently in the form of another question, What is needed? The real challenge then begins because to reach agreement on the definition of needs is difficult. That is not to say that there are not real, obvious needs that everyone recognizes. For example, when 200 to 300 people are packed into a subway car designed for 80 people, almost everyone (especially the 300 people in the subway car) would agree that the situation is intolerable and deserves attention. Similarly, everyone will usually agree on the replacement of an old bridge that has posted load limits because of its structural inadequacy and that is beyond the point of minor rehabilitation.

However, transportation professionals do not like to admit that things must get that bad before we can agree on what the needs are. We usually perform detailed technical studies of the transportation system in order to determine needs for improvements before intolerable situations develop. In this way we can start the process, which may take several years, to meet an anticipated need.

In the federally sponsored national highway and transportation studies, needs are based on identifying conditions below minimum tolerable levels that are technically specified. The dollar cost of these needs consists of the costs of improving facilities to acceptable design standards, which are set at a level higher than the minimum tolerable. These national highway studies have proved useful in many ways, such as in identifying the general condition of our national highway system and determining how much it would cost to improve it to current design standards. They also raised questions about the validity of our previously accepted standards, which can result in bankrupting solutions to transportation problems.

An important lesson we can draw from these studies and the subsequent federal highway and transit legislation is that there are inevitably conflicting opinions among the so-called transportation experts, members of Congress, and state and local legislators. The question of an appropriate level of funding is answered almost exclusively in the legislative branches of government. Administrators can only try to influence these decision makers by providing comprehensible and factual analyses of the alternatives and recommendations.

Another commonly followed method of determining an appropriate funding level is based on an incremental philosophy. In this approach, only slight deviations are made from previous practice, and the funding program is continued essentially at the same levels. This has been the most frequent approach in past federal highway legislation. Since the establishment of the Highway Trust Fund in 1956, successive highway acts have done little more than to authorize the expenditure of money that came into the trust fund. Increased funding was due to an increased accrual of revenues rather than to increased needs. I do not want to question the value of this incremental approach.

It is a natural and reasonable course of action, and one that is adequate in many situations. It is not, however, the only course to follow; and, in the light of changing circumstances, it may be an intolerable approach.

New York State's experience with this issue has probably been more typical than unique and so will not be discussed here. I would like, though, to discuss our philosophy and position on the question of an appropriate level of funding. It is not so much that we require more money for transportation improvements because of the demonstrated needs but that we affirm the factual results of the needs analyses that have provided meaningful information on real transportation problems. The results of the analyses must be tempered, however, by the response to the underlying questions: What can be purchased with the varying levels of potential funding? What sort of system performance and service would be provided? Although we continue to recommend increased transportation funding to legislators, we also present data on the effects of differing levels of investment in transportation so that the decision makers and the general public will know what they are getting for whatever level of funding is finally appropriated for transportation programs.

Although needs studies are beneficial in determining an appropriate overall level of funding, they do not help in determining how funds should be spent. When funds cover less than total needs, say, only half, is it better to solve all of half the problems or half of all the problems or some mix in between?

## STRUCTURE AND SOURCES OF FUNDING

The second fundamental program planning problem concerns the structure and sources of funding for transportation projects. Where should the funding for transportation projects come from? How should it be set up fiscally? The answers usually deal with 3 aspects of financial management: the desirability of dedicated funding, the meaning and use of so-called user revenues, and the choice between bonding and pay-as-you-go financing.

The federal government and about 90 percent of state governments have highway trust funds. New York State is in an almost unique position by not having dedicated revenues. Dedicated trust funds seem to have been established chiefly for 2 reasons:

1. They ensure a continual source of funding for transportation improvements.
2. Highway users and the benefits and costs they receive from highway facilities, many believe, can be isolated and separated from the rest of the socioeconomic activity system that we live and work in. Therefore, highway revenues and expenditures were thought of as an entirely self-contained system with no external benefits or costs.

The deficiencies of trust funds have manifested themselves in several ways. For one, administrative practices such as impounding funds and setting obligational limits on the amount of money a state may spend out of its total federal apportionments cause fluctuations in the level of available funding. Funding is not really ensured. Likewise, the recent and continuing energy crisis has caused a decline in gasoline consumption and a corresponding decrease in trust fund revenues. In addition, trust funds frequently must be put to specific uses. This prevents flexible or adaptive solutions that are responsive to changing transportation needs and circumstances.

I do not mean to downplay the value and usefulness of trust funds to transportation programming and financial management in the past several years. Nor do I totally rule out the possibility of improving the trust fund concept. I believe, however, that we should avoid getting so tied up in arguments and discussions of the sanctity of dedicated funding that we forget that trust funding is only a means to an end. We have to be more alert to the overall results of the financial structure that we have so that we can work to achieve urgent transportation goals. In New York State we have generally—and on average—spent much more on highways than we have collected in highway user revenues because of the recognized role of transportation in our economic and social structures.

Another aspect of the issue of the structure and sources of funding for transportation

deals with the myth that user revenues pay the full costs of the facility. The term "user revenues" refers to the taxes that users of a certain mode of transportation pay. For highways these revenues consist chiefly of the gas tax, vehicle registration and driver license fees, tolls, and truck weight taxes. For air transportation the boarding tax, charged for each person arriving or departing from an airline, is one type of user revenue. There is no user revenue tax for public transit although the fare could be considered as one.

User revenues are separated from other general forms of revenue from taxes on income, sales, and property because of the belief that the taxation of and expenditures for a certain mode should be completely isolated from the rest of the transportation system and other government operations. Recent experiences seem to indicate the folly of that belief.

Many people have never really favored isolating transportation user revenues since the "price" charged bears little relation to the total cost of providing the transportation facility to the user. For example, a major external cost of highways is their environmental impact. Pollution and congestion costs are borne by nonusers of the highway facility.

In all forms of transportation, it has become obvious that there is not even a close let alone a one-to-one correspondence among those who pay the user charges for a transportation service, those who gain the benefit, and those who bear the cost. One of the justifications for government subsidies for public transit, for example, is based on the fact that transit service benefits more members of society than just the users. The benefits to the automobile users who enjoy reduced congestion levels and to the infrequent users who have a stand-by transportation service illustrate the nonuser benefits from subsidized transit service. In addition, there are the benefits that relate to the land being served by transit, employment, business activity, and increased tax returns.

I believe justification for treating user revenues separately is difficult, except on the practical basis of their being sources of income. Although user revenues can be dedicated to a transportation trust fund, they should not be reserved exclusively for a specific modal purpose.

Our position on this issue in New York State is to maintain user revenues at the federal level, but to set up a new multimodal transportation fund that would receive revenues from all forms of transportation and disburse funds to all types of transportation projects. There would be no modal, categorical, or administrative restrictions on the funding. We will then be able to bring our fiscal resources directly to bear on our urgent transportation needs and problems. A better approach would be to let the tax be imposed nationally but collected and kept by the state for use for any transportation purpose.

The last issue under the topic of the structure and sources of funding concerns the question of the bonding approach to financing transportation capital improvements. The alternative to bonding is commonly referred to as "pay-as-you-go," although with the long time required to accumulate and invest funds pay-as-you-go more often becomes pay-before-you-go.

The argument in support of the bonding approach to financing is based on the fact that a large-scale capital improvement has a long life and results in benefits during that long life. Therefore, it should be paid for as the benefits are being received during the life of the project rather than at the time of construction. This is the manner most of us pay for major personal capital investments such as a car or house. However, bond financing has to be approached carefully. Many people fear that a current government administration may overspend and thereby overcommit future generations to a too great debt burden.

New York State has had extensive experience with setting up bonding programs to fund transportation projects. One of our most successful endeavors was the \$2.5 billion bond program in 1967 that provided \$1.25 billion for highway improvements, \$1 billion for public transportation, and \$0.25 billion for airport projects. Later bonding attempts in 1971 (\$2.5 billion) and 1973 (\$3.5 billion) were resoundingly rejected by the voters. However, a \$250 million bond program to be devoted entirely to preserva-

tion of the state's rail facilities was overwhelmingly approved in 1974, at a time when voters across the nation were rejecting most increased government spending programs.

We have learned the following lessons from our several bonding program attempts.

1. Full and complete information must be provided the public on all aspects of the bonding program.
2. The uses of bond funds have to be clearly explained in terms of projects, the time frame for expenditures, and the regional allocation (if any) of the money.
3. Bond funds should not be relied on to provide the total monetary resources for transportation capital improvements. They should rather supplement sources to finance urgent, critical improvements at a more accelerated pace than would otherwise be possible.

## ALLOCATION OF FUNDING

Allocation of funding concerns answers to the question, How should an aggregate level of funding be allocated among geographic areas, several purposes, and various modes? By allocation, I mean the distribution by either legislative or administrative direction of an overall amount of funding to program categories or geographic areas. I would include as types of allocation both the division of the Highway Trust Fund revenues into the categorical interstate, primary, secondary, and other programs and the apportionment of any one or all of these programs among the states.

The issue of allocation of funding is the most central of the programming funding problems, and it ties together all of the other issues. Through allocation, resources are specifically brought to bear to meet a given transportation problem.

Categorical allocation of funding has been typically based on channeling revenues to fairly specific groups of problems whose extent and priority are based largely on federal perceptions. Thus, we have separate programs for economic growth center highways, for urban high density corridors, for high hazard locations, for roadside obstacles, and so on. The practice of funneling funds into specific transportation programs may have been necessary to ensure that groups of problems were answered, but it was disastrous in numerous individual cases. Categorical programs frequently forced improper and sometimes undesirable solutions rather than the best solutions to given problems.

But rather than list the problems caused by categorical fund allocation, I will suggest solutions to the problems. What is obviously required is a drastic reduction in the number of categorical funding programs. I understand that the Federal Highway Administration is proposing that all current federal-aid highway categories be consolidated into four: interstate, rural, urban, and safety. I think this is a praiseworthy idea, but I would be happier still if the categories were consolidated into two: interstate and all others. Similar consolidation would be possible in the new transit act.

Because I recognize the national significance of the Interstate Highway System, I can understand how, rightly, those funds should be considered separately. However, for almost every other type of transportation project, I feel that the proper form for federal-aid funding should be a single transportation revenue-sharing grant. Under this concept, all noninterstate, categorical federal-aid programs would be eliminated. In their place, the federal government would return a single transportation fund to each of the states, or have the states collect and keep the tax revenues received in that state. The funds could be spent as the states saw fit on any type of transportation project, and little or no bureaucratic regulation and administration at the federal level would be required. All that should be required is that the states annually report to the federal government on how the money was spent. The time-consuming and bothersome studies, plans, and reports on what the money is to be spent for would be eliminated. Thus, the funds would be directed to actual transportation improvements rather than being wasted on paperwork. Such an approach would permit each state to use whatever resources are available to meet its individual needs.

Before leaving the topic of allocation, I should also discuss the geographic aspects

of allocation. The rationale for dividing a total amount of resources to subareas (for example, to individual states) is based chiefly on 3 theoretical considerations: needs, equity, and maximization of overall net benefits to a given subarea. The first consideration implies that a judicious distribution of any resource should give relatively more to an area that needs relatively more than to another area. Similarly the issue of equity requires that an area that contributes relatively more to the overall revenues available for distribution should receive a relatively larger share than another area. The final consideration is also based on common-sense wisdom of attempting to furnish the greatest benefits to the most people.

Although there is probably no one method for allocating funds on which everyone would agree, we believe two improvements would be appropriate. The first is to use realistic parameters related to the subject at hand to allocate funds rather than ambiguous data that may accidentally produce satisfactory results but that have no logical basis for doing so. Technical transportation data, say, passengers carried or vehicle miles, are more appropriate to use than factors such as mail route miles or population. The second is to provide a certain limited amount for administrative discretion to meet unexpected but urgent needs rather than to lock in the funds in every area. I would not propose a totally discretionary allocation policy, for the states must have reasonably accurate information as to what resources are to be available if they are to plan rationally for the judicious expenditure of such resources.

## CONTROL AND CONTINUITY OF FUNDING

The last aspect of programming funding problems concerns questions about the control and continuity of funding: What are the effects of inflation, administrative practices, and crises (energy, transit, fiscal) on transportation funding? What can be done to deal with such effects?

Inflation has been increasing at an enormous rate during the past few years—so much so that \$1 worth of federal-aid construction in 1967 now costs \$2.10. Such severe changes in the costs of a transportation project make it difficult to plan effectively for the expenditure of the limited available resources. Although prices are now apparently leveling off, I think we will have to learn to live with at least a moderate annual increase in the cost of everything we do for the next several years.

Another problem that upsets the smooth control and continuity of funding at the federal level is the recent administrative use of impoundment, establishing obligational ceilings to limit a state's expenditure of already apportioned federal highway assistance. To perform necessary project planning and scheduling activities is quite difficult when funding fluctuates widely during a short period of time.

Many other examples exist of continually changing circumstances that cause problems in the management of transportation resources. The energy crisis, for one, not only has had a significant effect on the rate of accrual of user revenues but also has caused us to rethink our goals and priorities about the types of transportation projects we plan to advance. The growing transit fiscal crisis caused by a decline in ridership in the face of above-average cost increases presents a serious challenge to our ability to respond to a highly important transportation need.

Although many of these continuity and control problems cannot be avoided or eliminated, we can take positive actions to be able to deal with them quickly in a forthright manner. Our state's philosophy and approach to these ever-recurring problems is as follows: We need a minimal assured level of funding during a fairly long period of time, at least 4 to 5 years. Only in this way can we make efficient use of the transportation dollar. However, because of unforeseen and uncontrollable future events, we need to maintain flexibility in the types of projects we can advance with these transportation resources. The restrictions and requirements on the funding available to us must be eliminated or reduced. Such flexibility will come from a full gamut of actions—from eliminating categorical federal programs to making internal adjustments to produce the best type of solution for a given transportation problem. Implementation and adoption

of these ideas may be difficult, but they are about the only way we can regain some continuity and control of our funding.

## DISCUSSION

*Robert W. Nelson, Metropolitan Atlanta Rapid Transit Authority*

A transit agency that does planning and programming is not, and should not be, concerned with the same types of problems that a broad-based state or federal agency is concerned with. We do not face the problem of allocating resources among projects and modes. In short, we know what our short-, intermediate-, and long-term goals are, and every aspect of our planning and programming effort must be aimed at these goals. We constantly adjust, modify, and reshape individual actions to satisfy the present local and federal funding levels, political objectives, patronage demands, and changing conditions, but always with a view to our objectives.

Despite the somewhat narrow planning and programming base described above, we and all other transit agencies are vitally concerned with the development of stable and rational programs at both state and federal levels.

At the outset, I must state that it appears to me that the single greatest drawback to effective transportation programming is that it appears to perpetually proceed from a basis of inadequate funding. This is more than an annual appropriation statistic—it is a frame of mind. We see our chief transportation administrators conducting extensive needs studies in all modes and then recommending legislative action at woefully inadequate levels. It is no wonder that legislative action is inadequate.

Part of our collective funding problem may be the result of excessive intermodal jealousy and competition. Individually, we are so concerned that some other mode may get too large a share that we undercut each other. Our first goal should and indeed must be a cooperative effort for more funding for all modes.

Contrary to Schuler, I believe there are real advantages to an adequately funded total transportation trust fund. A trust fund with dedicated revenues greatly reduces the annual agony of the appropriation process. In addition, trust funding provides an assured level of future funding—hence, program continuity.

Although we all sympathize with his cry for less red tape, I believe we are going to encounter more, not less. Energy shortages, environmental protection, railroad bankruptcies, and soaring operating deficits have been used as principal reasons for increased spending in transportation. Each, in turn, has led to legislative demands for more program analysis, performance evaluation, and follow up. A case in point is the 1975 transit act, which is a specific legislative mandate for a high and uniform level of reporting by transit operators. The resultant UMTA guidelines go far beyond legislative intent and provide an unprecedented degree of program control over local efforts. Either state and local governments will adopt high-occupancy vehicle preference measures or they will not receive operating support. Although there is no question that some of these preference measures should be implemented (despite the local political difficulties involved), it is distasteful that our federal agencies would use operating funding to enforce compliance.

I join Schuler in his concern over uncertain incremental funding. This single factor is our principal problem. We must, of necessity, be engaged in a perpetual juggling process to do the best we can with what we think may be available in planning our short-range work program and then in rejuggling when we find out what is available. The resultant drain on program management is unbelievable, and our hope is that collectively we can work toward not only adequate funding levels but also the initiation of long-term contract authority.

# DISCUSSION

*W. M. Hilliard, Florida Department of Transportation*

In Florida, programming, work program financing, and budgeting are done by the Bureau of Program Development, Management and Scheduling, a small group that was formed in 1969 when the Florida State Road Department was reorganized into the Department of Transportation. This group is also responsible for managing the program implementation and scheduling the many projects in the transportation program. The performance of these activities by one organizational unit certainly creates its problems in terms of responsibility, work load, and demand on those involved in this work. However, it does have the advantage of forcing financial coordination of all departmental activity and gives those who are engaged in this work a perspective that would be difficult to obtain elsewhere.

Programming, from our point of view, is documenting the proposed accomplishments of the organization in some order that reflects a balance between needs and priorities and that considers the availability of finances, personnel, and time. The program of proposed accomplishments developed by this process should have a high probability of success if the resource assumptions are valid and do not change and if proper management and control techniques are employed. This work program (in Florida our Five-Year Construction Plan) serves as a focal point for all department activity. It is the formal statement of departmental objectives in terms of transportation output. Budgeting is concerned with the near-term (1 year) operating financial plan, which is compatible with the multiyear program. Planning is concerned with determining the balance between needs and priorities before a program for implementation can be developed. Programming can be done without planning, planning can be done without programming, and both can be done with no relation between the two. The desirable relation, however, is one in which the program is developed in accordance with the long-range plan. We feel that we have made considerable progress in developing the proper interface between programming and planning in Florida in the last few years.

Programming and program financing are not well understood by the citizen, the legislator, or many who are involved in program implementation. In the minds of many people, anything beyond the next year's budget cannot even be contemplated. Yet, few realize that in a normal federal-aid highway project, the time elapsed between initiation of the project and its opening to traffic may well average as many as 7 years. Legislators, when they do begin to understand transportation finance, are surprised to discover that their annual appropriation merely pays the bills for work already initiated in previous years and that as little as 25 percent of the funds appropriated for any 1 year can be associated with new work. Florida, like many other states, still operates on the annual appropriation, which, although appropriate for most state agencies, tends to perpetuate the "cigar-box" concept of finance in transportation programs. The misunderstandings and difficulties become worse when the operation occurs in a full cash-flow environment as it does in Florida.

Citizens, of course, do not concern themselves with the complexities of finance but do see our work program and objectives in terms of when we expect to implement specific projects. Because citizens, in either their personal or business affairs, will base plans on what we propose to do, our success in programming accurately is essential.

Of course, the programmer and financial planner at the state level are not in full control of the situation. Any discussion on transportation programming and finance must include comment about federal-aid programming, for in most states this constitutes the major part of the programming effort. Florida has, in recent years, been successful in anticipating changes in federal law and in building a work program that incorporated the necessary flexibility to take advantage of federal-aid opportunities.

Success in federal-aid programming, however, especially in the last few years, is becoming more difficult to achieve. The 1973 highway act and the 1974 amendments contain some 50 categories of federal funding, of which Florida participates or hopes to participate in approximately half. The ability to transfer funds from one category to another is limited. As an example of the degree of specificity of highway legislation,



the 1974 act appropriated money for an improvement at a specific intersection in a specific city—certainly not what one considers to be national legislation.

One of the major problems in Florida now is that, even with the 20-odd categories that we participate in, none permits us to apply the funds to what we consider to be our most critical needs: bridge rehabilitation and resurfacing of the primary road system. State funds, which in Florida come from the 4-cent gas tax passed in 1942, must be used for bridges and resurfacing as well as for operating costs, maintenance on the primary system, and any other costs on non-federal-aid work.

Another problem facing the state government is the lack of continuity in federal programs. For example, TOPICS, in our opinion an excellent transportation program, was abolished at about the time the states had finally designed projects and were ready to obligate the funds. The lack of continuity exists not just in funding but in systems definition. The Functional Classification Study was a step toward eliminating the hodge-podge now existing in federal and state systems. The intent was that eventually funding would be compatible with the systems defined. This has not been the case, and we find ourselves now abandoning logical system definitions to make proposed projects eligible for some federal-aid fund category that exists at the time the project is to go to contract. The urban system is a good example. Although many of the problems are built into the law itself, in many cases administrative interpretation and resulting procedures for implementation create other difficulties.

The lack of coordination at the federal level is evident when we have developed a construction plan that proposes to use urban system funds on highway projects while at the same time UMTA is advising local areas that the same dollars are available for various transit projects. From the programmer's standpoint, it makes little difference whether the funds will be used for highways or transit, except that obviously they can only be obligated once. We do have a responsibility for total transportation in our department in Florida, and we do have an aggressive transit program. The problem in spending significant dollars in transit in the early years is that transit needs at this point are in the front-end stages of planning and preliminary engineering. Later on, as we get into the construction phases, the dollar needs become even greater than the amount that Congress has appropriated and much greater than any amount the states could fund with present revenue sources. In the meantime, while this front-end work is being done, the money was planned for use on highway projects that had been proposed and were unfunded when the primary and secondary appropriations were converted to rural systems only. Again, if the output project requires 7 years from beginning to end, we must have program coordination and stability for at least that time frame.

Another related problem is those programs that are unpopular with the administration and for one reason or another never seem to get to the point where money can be obligated.

In addition to the problem of law and its administrative interpretation and implementation is the problem created by the Executive Branch through its freezes and thaws of obligating authority—otherwise known as the impoundment process. Florida has never really suffered that much from impoundment. We have managed to stay ahead of federal programs such that we always were able to take advantage of the releases of obligating authority. However, staying in a position to do this, and actually doing it, does make it difficult to manage a smooth even flow of contract lettings. The ups and downs that result from being ahead on federal programs are certainly disruptive to department forces and the construction industry. In the past, we accepted this on the theory that the President was exercising his responsibility to control the economy through these measures. Recent events have caused us to wonder if this sort of economic control really brings about its desired result. The recent release is an example. Although we have production ready to go and could let contracts, the necessary state matching funds are not available.

It is ironic that while the states felt the impact of the energy crisis and the resulting drop in revenue early in 1974, the federal-aid programs, because they are managed on an encumbrance basis, have not felt the impact and are adding to the burden of the states because of increased matching requirements. The continued and increasing level of federal-aid apportionment has accelerated the time when states can no longer

pursue full federal-aid programs, provide the necessary matching money, and carry out their responsibilities that must be funded with state money alone. In Florida we have reached that point today. At this time, Florida is unable to capture any additional federal aid because of the matching problem. Apparently, from information we have been able to gather, there are at least 30 other states in a similar situation. It is hard to see how Congress can talk about a 5-, 10-, or 20-cent gas tax increase and make no mention of the use of at least part of this to solve the problem in these 30 states, particularly when transportation programs require no additional federal or state employees for completion and these programs help employment by providing approximately 1,400 jobs for every \$20 million monthly contract letting.

The energy crisis, with its resulting drop in anticipated revenues, and inflation in transportation construction (which in Florida was 45 percent in 1 year) have really brought to light and made more acute the problems in transportation funding, which had existed for some time and eventually would have surfaced anyway. We are at a point now where Congress or our state legislature must find solutions to these problems or suffer cutbacks in the level of transportation service to which citizens have become accustomed.

The impacts of the energy crisis were not all bad. For one thing, it certainly forced us to improve our cash forecasting process. In Florida we have even had to go on a quarterly commitment authority of 100 percent state funds. At these quarterly commitment authority sessions, all potential projects are analyzed and weighed to determine those that should be pursued. This kind of exercise really forces us to analyze our priorities. Discussions of modal trade-offs and balanced programs become more difficult when you reach the point of deciding whether the last \$200,000 of quarterly commitment authority should be used to construct a bus shelter in Jacksonville, repair a bridge that is in critical condition in the Keys, or match a federal-aid reconstruction project. Of course, these problems would not be so acute if federal aid could be applied to these programs.

Some flexibility in the specifications followed for federal-aid projects would permit the states to make better use of the limited funds that are available. The California approach, which considers availability of funds in the establishing of the project concept and even in design, is a step in the direction of making better use of available funds. Although there is not unanimous agreement that this is the proper approach, it is evident that programming and financial planning are not the same in economic hard times as when money is plentiful.

What is on the horizon for programmers and financial planners is hard to predict. An examination of the role played by federal, state, and local governments in transportation financing and implementation appears to be appropriate. Should the federal government be involved in every transportation program, or should federal efforts be restricted to those programs with national significance such as the Interstate Highway System? Some think that a program should be funded, administered, and executed at the lowest level of government, where the expertise and resources exist or could exist to do it. This principle, if followed, would probably mean that some transportation programs now considered federal would fall to the states, and some programs now administered by the state would be passed on to local governments. It does appear that many programs now administered by the federal government could be performed with greater success by the states or local areas. Some federal programs, which are being carried out uniformly in all of the 50 states, could reasonably be classified as "experiments" and would probably have a greater probability of at least partial success if carried out individually in 50 different programs as devised by the individual states. This is particularly true in those programs that have shown no evidence of success and are even at odds with state needs and desires.

There probably should be a modification in the way funds are now distributed to the states. Florida, which according to FHWA records is the second greatest donor state, may have been content to assume this role in a time when money was needed to construct the Interstate Highway System in the central and western states, which could not fund these projects on the basis of revenues collected locally. Except for the Interstate System, however, there appears to be no logical reason why Florida should contribute to

the improvement of any other state's transportation system. A distribution procedure that does this on the assumption of achieving national uniformity of systems would seem to reward with larger apportionments those states that had difficulty in program implementation.

In Florida we are experiencing continued interest by our state legislature in the matter of transportation programming and funding. Eventually we may have a state system of apportionments and obligating authority releases. Perhaps much of this will pass from the federal government to the state governments and eventually to the local governments.