

The UMTA and FHWA procedures that govern the environmental assessment process should be the same wherever possible. In both agencies, the process should culminate in a decision regarding project implementation, not just a funding decision.

Federal requirements should provide flexibility in the institutional arrangements in which project planning takes place and the techniques that are used. There are many differences among the states and urbanized areas that preclude a standardized approach.

Funding mechanisms should encourage sound decision-making and lead to efficiency. It was observed, however, that in many instances funding mechanisms, such as discretionary programs, can distort the objective outcome of the project planning process.

Where certification acceptance is not applied, the federal government should use process reviews rather than a project-by-project, step-by-step approach wherever possible. The FHWA, UMTA, and other federal agencies involved in project planning should decentralize the review and oversight process where possible. They should avoid the current practice of sequential, multiple-layer reviews.

Where multiple-level reviews are necessary, they should be conducted concurrently. There should be research and technical assistance training to improve the state of the art. The lack of consistency in interpretation in federal policy and regulations across the country was identified as a major problem within, as well as between, federal agencies.

Duplicative, overly restrictive, and irrelevant environmental requirements should be eliminated, such as using the 106 historic preservation process instead of the 4F process for addressing historic sites.

Federal regulations should be sufficiently flexible to permit an implementing agency to incorporate into its project planning process the results of a well-documented, comprehensive planning process that has developed specific transportation improvement proposals. These proposals must have been based on a sufficiently broad and valid set of criteria and objective information and the involvement of affected parties.

## Planning for Transportation Management and Operations

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The workshop on planning for transportation management and operations took note of the changing environment in the transportation field that has greatly altered the needs of decisionmakers. With the shifting of the majority of public transportation services in the 1960s into the public sector and with the reduction of the large construction programs in the highway field, individuals responsible for transportation activities at the state and local levels of government find themselves facing a different set of issues. Prior management requirements were oriented toward facility planning, but future requirements will be directed toward the efficient, effective, and economical management of existing systems, both physical and operational. Most likely there will be a continual merging of

public transportation operations and traffic engineering activities over the next decade, even though the amount of funds allocated for each of these areas may be substantially reduced.

As the emphasis is changed in the transportation field, new or different skills will be required for managing resources. Since the emphasis will change from design, construction, and acquisition of transit operating properties, the skills needed for day-to-day management will be quite different. Thus, transportation personnel, both academic and field practitioners, must reorient their thinking and their training programs in order to perform successfully in this new environment. Individuals coming into the transportation field must be provided with an appropriate mix of new skills to operate in this new environment. In addition, there is a need for the reorientation and retraining of individuals already in the field to meet the challenges of the different environment.

### REVIEW OF URBAN TRANSPORTATION PLANNING FUNCTION

The historical role of the urban transportation planner required certain skills and expertise. The role was oriented toward long-range planning; that is, the development of 20- to 25-year transportation plans. The skills needed were in the areas of forecasting, model development, alternatives analysis and evaluation, and long-range plan development. Very few requirements, if any, were imposed on the urban transportation planner for implementing the plans that were developed. It is now seen that, for the 1980s, new roles are emerging for the urban transportation planner. These new roles will require additional and/or different skills and expertise than required for long-range planning activities.

The urban transportation planner will be moving into the management and operation of transportation facilities and services. The value of urban transportation planning will increasingly be measured in light of its ability to provide meaningful information to management. There will be less need for the development of long-range plans, although there will most likely be some updating of existing plans. The focus increasingly will be one of providing support for short-range decision-making. The skills and expertise required for the urban transportation planner to operate in the 1980s will vary depending on the organizational level at which he or she operates. To enhance the utility of planning, the planning professional will need to be linked with the decisionmaking and production processes of an agency.

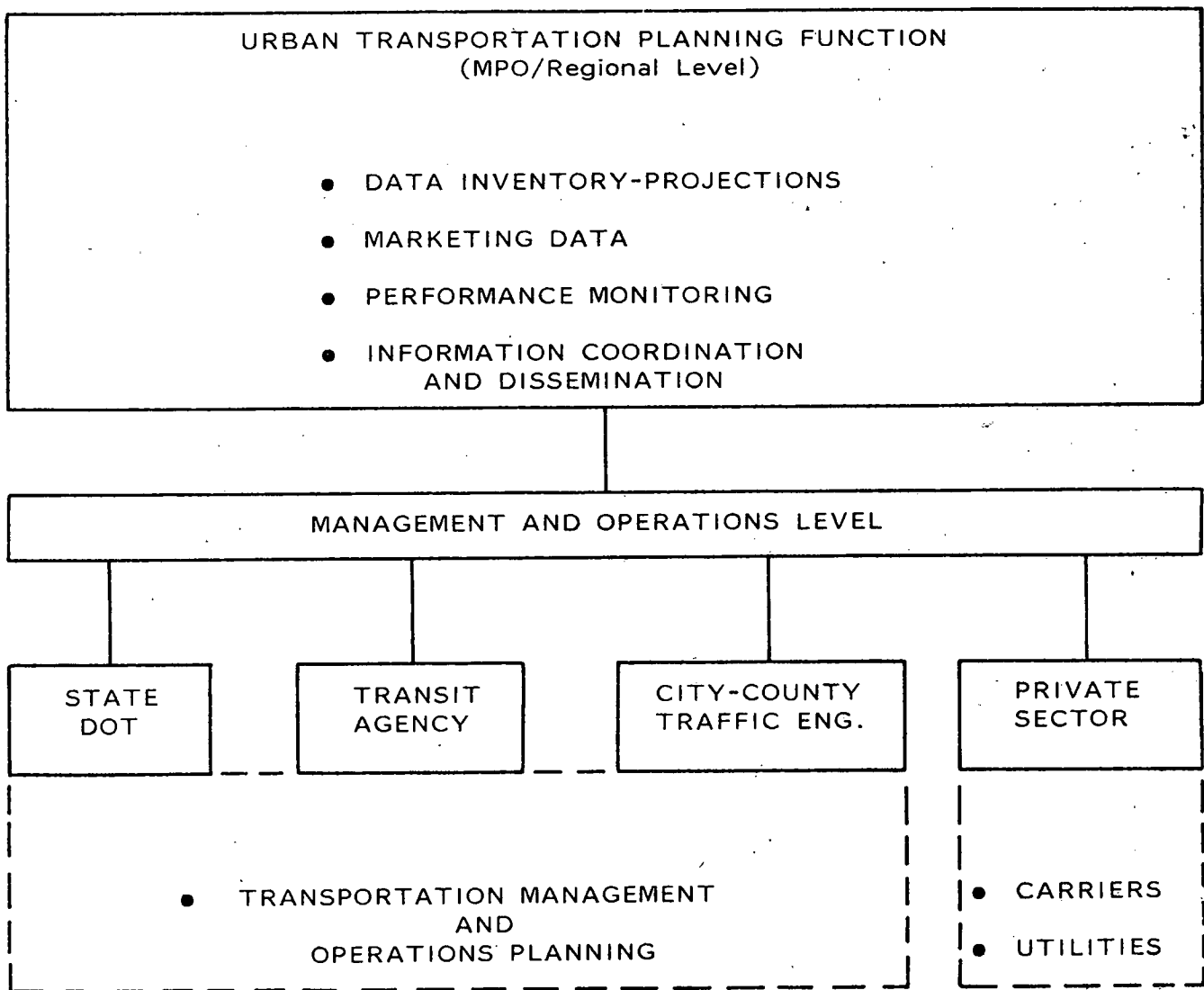
While there definitely will be a need for transportation planning functions in the 1980s, these functions will vary substantially from those required during the past 20-30 years. Figure 1 outlines the functional activities required at different organizational levels for urban transportation planning in the coming decade. It is believed that there will be an urban transportation planning function at a level consistent with the metropolitan planning organization (MPO). At this level, there will still be data inventories that will enable a wide variety of analyses. In addition, there should be some form of performance monitoring of transportation facilities and services. This performance monitoring may be conducted not only on a specific facility or system, but also on a regional basis. Some of the data that will be collected and from which projections will be made can aid in

marketing functions of various transportation and non-transportation agencies in both the public and the private sectors. It is envisioned that, at the MPO/regional level, marketing would not be conducted in the traditional sense but in the sense that information would be available that could be used for marketing purposes by agencies with responsibilities for day-to-day operations.

The major contribution that an MPO or regional level of urban transportation planning can provide is information coordination and dissemination. It is not cost-effective for each individual operating agency to maintain large data banks. Likewise, it is often difficult and quite costly to use data bases from a multiple number of agencies to provide adequate information needed for operations over a regional area. It would seem to be an appropriate role for an MPO/regional level of urban transportation planning to coordinate and disseminate information on a regional as well as a local basis.

Also seen from Figure 1 is that the transportation planning function found at the MPO/regional level should be supportive of both the public and private sectors at the management and operational levels. Implementing agencies, such as a state department of transportation, public transportation operation, and city/county traffic engineering department, as well as utilities and private carriers, all have needs for information that can be organized and maintained at the MPO/regional level.

The urban transportation planning function at the MPO/regional level of planning should play a very important role in the 1980s. However, this role may be somewhat different than that defined for an MPO in the past few years. The urban transportation planning function at the MPO/regional level must become more market-oriented by meeting the desires or needs of its clients. The MPO should have staff skills and provide analyses to assure consistent regional data bases and plans. It should provide control totals and major transportation



**Figure 1.**  
**Organizational roles and responsibilities in the 1980s.**

network flows across jurisdictional boundaries, for example, external-to-external and external-to-internal vehicle or person flows on major facilities. The MPO should maintain a current land use and zoning data base, which is essential to short-range market research and site or corridor impact studies. Where the MPO supports regional forecasts, they should be a function of future growth projections with more long-range planning done in higher-growth areas.

Major study activity will be increasingly decentralized to treat specific situations, problems, or economic objectives and to establish project implementation schedules. The MPO can have a major influence on the scheduling of facility construction and major capacity management projects since many subjurisdictional boundaries will be crossed. Where local agencies are not prepared to execute the study, the MPO may be asked (or contracted) to do it. Data collected or generated as a result of localized studies may be passed to the MPO to use in updating the regional data base.

Some question has arisen over whether or not a transportation planning function at the MPO/regional level should be a requirement; but, perhaps, this function should exist through the MPO's ability to attract clients that would financially support its services. The transportation planning function at the MPO/regional level must identify and seek out clients with needs for which services can be provided and for which a client is willing to pay. The transportation planning function at the MPO/regional level should not be a policing activity as is mandated by the federal government in certain instances at the present time (i.e., Section 504, Clean Air Act requirements, etc.). It is also recognized that the transportation planning function at the MPO/regional level should be provided adequate resources and capabilities in order to carry out its mission. By becoming responsive to the needs of its clients and potential clients, adequate resources should be available from clients.

Perhaps the certification of MPOs should be changed. Instead of being based on federal bureaucrats' judgment of how well the MPO is meeting the long list of federal regulations, certification should be based on the satisfaction level of client agencies. For example, certification might be based on (a) minimum federal requirements (i.e., plan, transportation improvement plan and memo of understanding), (b) financial support from client agencies, and (c) periodic questionnaires to the participating politicians and technicians in each client agency.

The urban transportation planning process can be unified more readily through the organizational definition of functional activities and responsibilities. Too often there has been an overlap in functional areas and a lack of orientation toward meeting clients' needs. In addition, there is often outright confusion over responsibilities, jurisdictions, etc. If requirements are dropped for a transportation planning function at the MPO/regional level, the transportation planning function will be forced to become user-oriented in order to maintain economic viability.

## FUTURE ROLES FOR URBAN TRANSPORTATION PLANNING IN MANAGEMENT AND OPERATIONS

There will be a role in the management and operations of transportation facilities and services for individuals with an

urban transportation planning background. However, the skills and training required for these individuals will be somewhat different than have been required in the past. There are several areas in which an urban transportation planner may function in the 1980s, but only if certain skills have been acquired.

### Operations Planning

The urban transportation planner will find that there are opportunities for employment in activities that require day-to-day operational planning. This will be very different from the long-range planning to which he or she may have become accustomed. The day-to-day planning will involve not only facilities and equipment but also personnel. The scheduling of activities will be a part of an individual's job requirements as will evaluation of different strategies for efficient, effective, and economical operations.

### Marketing

The transportation planner, most likely, will not be expected to perform as one having substantial expertise in the marketing area. However, the urban transportation planner will have to work with marketing personnel and to be able to interface with them on projects that require a marketing function. Included in these marketing activities are such things as product planning, product development, product testing, pricing, and promotion. By having an appreciation for marketing and its contribution to management and operations, the urban transportation planner can make a better contribution to the organization.

### Financial Management

The management of resources in the public sector will become increasingly more important. A large effort will be put forth in the financial management of both facilities and services. In order to be able to contribute effectively to management and operations, the urban transportation planner must be able to perform in a financial management concept of operations. Without an appreciation for financial management, it will be difficult for the urban transportation planner to be integrated fully into the agency in which he or she may be employed.

### Safety Management

In the management and operations area, safety is a very important consideration. The urban transportation planner must recognize the impact that good safety management has on the organization as a whole and on the health and well-being of the individual employee. The urban transportation planner not only must be cognizant of the legal requirements for safety but also must be oriented toward management safety to ensure productive and profitable operations.

### Maintenance Management

Without large amounts of resources available for new construction, there will be a need for ongoing maintenance of

existing facilities and equipment. This is especially true of the Interstate highway system. Enormous costs will be involved in maintaining present transportation facilities. Without proper maintenance management, the costs can become so astronomical that it will be virtually impossible to sustain adequately any reasonable level of service for these facilities. The urban transportation planner must be able to perform in an environment that is not building new facilities but is orienting its resources toward maintaining an existing system or service. The transportation planner must be able to provide information that will readily relate to the decisionmaking requirements for maintaining systems and services.

## Human Resources Management

Perhaps at no other time in history has the management of human resources been so important to organizations in both the public and the private sectors. Productivity has held constant or even declined in certain sectors during the past decade. Some of this can be attributed to the inability to manage efficiently the human resources available to an organization. Labor restrictions, lack of incentives for increasing productivity, lack of pride in workmanship, and a host of other things have all contributed to the inefficient management of human resources. The urban transportation planner must be able to utilize effectively the limited human resources available. This is an important function for any organization, and it will continue to be so in the coming years.

## Performance Monitoring

Increasing attention must be given to monitoring the performance of facilities and services in the transportation area. The urban transportation planner must be familiar with performance measurements and the manner in which they can be used to improve operations. The urban transportation planner must be familiar with measurement criteria and with the standards that will be used for comparison.

## Management Accounting

Management accounting may be described as the preparation, interpretation, and dissemination of financial data (sales, operating capital, overhead, and other costs) to aid management of an entity in achieving its financial goals. The management accountant also provides budgets against which financial performance is measured and predicts, through pro forma projections, likely financial results based on specified operating scenarios, economic climates, and tax laws. Organizational unit performance may be evaluated with respect to system efficiency and effectiveness. The urban transportation planner must be able to function in an environment that will become even more management-accounting-oriented.

## Required Management Techniques and Skills

As indicated above, the skills of the urban transportation planner required to function in the management and operations

environment will be different from those required for long-range planning. Several skills should be acquired to aid in performing at the management and operational levels. The analytical skills required are typical of those found in experienced transportation system planners. Further skills are required in the areas of organizational design and the basic concepts of management. Several of the more important skills needed in the 1980s are discussed below.

*Engineering.* The urban transportation planner would do well to have an engineering background. This permits the use of the mathematical and design skills that are often required in the management and operations area of transportation. Some of the work that a day-to-day operations planner might be doing would require an engineering background, whether the operations planner is in basic traffic engineering or perhaps with a public transportation service. Often specifications have to be prepared, and supervision must be provided for the completion and/or maintenance of equipment and facilities.

*Transportation Background.* The urban transportation planner should have a background in the fundamentals of transportation. There will likely be more integration of activities from the traffic engineering or highway area with the public transportation service area. There is a need for individuals who have a background in these areas and an appreciation for the contributions that can be made from the merging of certain activities in transportation.

*Economic and Financial Analysis.* The day-to-day operations in the transportation field in the 1980s, perhaps, will be more concerned with economic and financial aspects than at any time in the prior 20 years. Although economic and financial aspects of operations are always important, the future outlook relative to limited resources will make it even more important that the urban transportation planner not only have skills in these areas but also have a definite appreciation for their need. More decisions in the 1980s will be made on economic and/or financial bases than on other aspects that have been used in the more recent past. Thus, the urban transportation planner must be reasonably proficient in this area.

*Management Accounting.* The ability to analyze accounting data to improve the management and thus enhance the profitability of an organization is very important. The urban transportation planner must be cognizant of the accounting needs and requirements of organizations and agencies in both the public and the private sectors. This skill becomes even more important if the urban transportation planner desires to move into management.

*Marketing.* It is not intended that the urban transportation planner be highly proficient in the marketing area, but he or she must have an appreciation for the contributions that marketing can make to an organization. Thus, urban transportation planners should have some skills in the marketing area so that they may provide support to personnel having responsibilities for product planning, product development, product testing, pricing, and promotion.

*Legal Aspects.* It is imperative within any organization that one be cognizant of certain legal aspects. Labor agreements, liability issues, contracts, and a host of other legal-oriented activities normally encountered in the day-to-day operations of any organization are critical to the success of that organization. The urban transportation planner must be cognizant of the legal ramifications of his or her actions as well as proposed

policies or actions. Therefore, some skills in this area are needed.

*Human Resources.* The ability to use human resources efficiently is becoming more important each year. Fringe benefits, continuing education, retraining, and many other aspects related to human resources and human development must be understood by the urban transportation planner. The effective utilization of human resources will determine the economic viability of any organization. Therefore, the urban transportation planner must develop skills in this area.

*Communications.* Perhaps the single most important element in any organization is communications. This includes both verbal and written communications at all levels of the organizational structure. The urban transportation planner must communicate effectively, both verbally and in writing, or he or she will not be able to provide the necessary support required of any employee, particularly that of an employee working as an analyst. It is only through effective communication that analysis can be utilized to improve the decisionmaking process. These skills are not necessarily easily obtained, but the urban transportation planner must work toward this end.

*Electronic Data Processing/Management Information Systems.* There will be increasingly more use of computers, word processors, and other types of electronic data processors by management. Management information systems will become more responsive as the cost of developing these systems is reduced through more efficient and less costly hardware. Very few employees, especially urban transportation planners functioning as analysts, can hope to achieve their potential without skills in this area. Skills in this area become a necessity, and the demand for these skills will increase in the 1980s.

*Operations Research and Statistics.* The urban transportation planner must be able to analyze data statistically and to develop optimum strategies for use by management. Thus, it will become important in the 1980s for the urban transportation planner to have a background in operations research and statistics. The ability to interpret and portray data accurately and to determine optimal operational strategies is essential. Of necessity, the urban transportation planner will be required to conduct his or her work based on techniques from operations research and statistics.

*Skills Acquisition.* As discussed above, several new skills will be needed by the transportation planner in the 1980s. Some of the analytical skills have already been obtained by the experienced transportation planner, and the other skills will need to be added through various forms of training. Individuals with skills as described above are available, but at salaries much above those normally prevailing in many public-sector jobs. The result is that there are shortages of such skills now showing up in individuals who can be attracted by the current salaries paid by various public agencies. It is not believed that the market will soften for these skills in the 1980s, thus leading to a reduction in salaries. Therefore, universities as well as public agencies should give thought to ways in which these skills that combine the technical and business aspects of transportation can be provided to the public sector. The public sector greatly needs more individuals with the skills described above, but the public-sector salary structure does not support the employment of individuals with those skills.

## DATA REQUIREMENTS FOR EFFECTIVE DECISIONMAKING

It would be expected that, if the environment in which decisions are made changes, the data requirements for effective decisionmaking will change. A review was made of the data requirements for management and operations that will be needed in the 1980s. This review is depicted in Figure 2. Four basic types of data will be needed—(a) inventory, (b) cost/management, (c) performance, and (d) marketing. It is also seen from Figure 2 that some of the data may be needed on a continuous basis; some data will be needed on a surveillance (sampling) basis; and some data will be project-specific. Some of the data will be needed to assist in the personnel area of management and operations; other data will be needed relative to current assets. Some data will be needed for maintenance, operations, and capital improvements. The data requirements will change depending on the organization or agency under consideration.

Figure 2 shows that inventory data, as an example, should be collected on a continuous basis relative to personnel, current assets, maintenance, and operations. However, for capital improvements, which are not always an ongoing activity, a surveillance or even project-specific inventory should be able to meet the needs in the management and operations area. In the cost/management area, continuous data are needed in all areas, but there may be some project-specific requirements in current assets. The performance data requirements will vary somewhat depending on the specific organization. As an example, there is a need for continuous performance measures on personnel and capital improvements. However, relative to current assets, maintenance, and operations, some form of surveillance may be needed to provide adequate data. In the marketing area, most of the data needs will be project-specific. It is difficult to maintain a continuing data base for marketing programs as market segments change with time and with products or services.

As the arrow indicates in Figure 2, the systematic collection and maintenance of data are less likely to exist as one goes down the data requirements; that is, performance and marketing data are less likely to be readily available than are traditional inventory data that have been collected over the years.

Care must be exercised in the development of data-collection programs. It is well noted in the public sector that data often are collected for the simple purpose of collecting data. This luxury most likely will not be afforded in the future. Thus, the organization that wants to be economically viable must give attention to data-collection needs and to the amount of data that are required. In general it may be said that the minimum data required (i.e., continuous, sampling, or project-specific) to provide for effective decisionmaking is the amount that should be collected.

## PERFORMANCE MEASURES

Interest in developing performance measures increased in the 1970s, and it is envisioned that there will be a continuing reliance on performance measures in the 1980s. Past performance measures (e.g., Section 15 of the Urban Mass Transportation Act, HPMS, etc.) are numerous and in most cases

	PERSONNEL	CURRENT ASSETS	MAINTENANCE	OPERATIONS	CAPITAL IMPROVEMENTS	ETC.
INVENTORY	C	C	C	C	S, P	
COSTS/MANAGEMENT	C	C, P	C	C	C	
PERFORMANCE	C	S	S	S, P	C	
MARKETING	P	P	P	S, P	P	

↓  
 Less Likely to Exist at Present

C = Continuous  
 S = Surveillance (Sampling)  
 P = Project Specific

**Figure 2.**  
**Data requirements for management and operations.**

provide a good universe. It is not envisioned that additional performance measures should be developed, particularly those that would require additional data collecting. However, it is believed that performance measures have been developed without establishing appropriate objectives. Performance measures established in this fashion tend to be ineffective. Often operational objectives are lacking, so performance measures cannot be used to evaluate whether or not the facility or service is accomplishing its objectives.

There must be an integration of performance measures into the management functions of an organization. The performance measures must have higher-echelon support if they are to be meaningful and if they are to contribute to improving the operations of any organization or firm. In some instances it appears that performance measures have been given only lip service by top management, particularly in the public sector.

In developing performance measures, consideration should be given to the movement of both people and goods. In the past, more emphasis has been placed on the movement of people; however, there are many instances where the movement of goods has become a very serious problem. This is particularly true for some of the very large urban metropolitan areas. The integration of both people and goods in developing performance measures is needed.

In addition, the measurement of regional performance measures should be explored. Transportation services should perform on a regional basis, and simply developing performance measures for subsectors of the region or subsystems of the

total transportation system provides for a suboptimal analysis of the unity of the transportation system for the region.

Evaluations should be made relative to investment opportunities for all assets. Many public bodies may have a tremendous investment in physical plants, but evaluations for a return on one's investment do not include these large assets. It is recognized, however, that there are certain restrictions on investments for the public sector; that is, the public sector is not able to invest in all areas in which a private firm might invest. Yet, it is felt that there are areas in which a public body might invest that have not yet been explored.

Performance measures should be considered in light of attracting private capital. In the 1980s the emphasis will be on the private sector. If a public body intends to operate in that environment, performance measures should be developed that would encourage private capital to invest in the public-sector operations. This may not be an easy task, but it must be considered in light of the environment under which public bodies will be operating.

It is recognized that the value of performance measures will vary from one area to another. It is not expected that a performance measure taken in Chicago should be equal to that taken in Miami. In addition, while many performance measures should be standard across areas, some performance measures are unique to specific areas. That is, a recreational area may have specific characteristics that would be unique to it but not to other metropolitan areas. Therefore, one cannot attempt to standardize all performance measures across all areas.

Performance measures should be developed to encourage total effective utilization of transportation suppliers. Often performance measures are limited to a particular set of conditions that may exclude many of the transportation suppliers in a given urban area. It is the effective utilization of all transportation suppliers that tends to make the transportation system perform efficiently, effectively, and economically. The public sector must be cognizant of the new environment under which it is to operate and must attempt to integrate the private and public sectors where appropriate.

Performance measures should be developed for the planning process itself. Planning has been under a lot of criticism in the past several years. Some of the criticism is well deserved. Few, if any, performance measures have been adopted for the planning process in order to evaluate the process from other than an internal viewpoint. The planning process must be oriented toward client needs and cannot view itself purely as an end in and of itself. Therefore, performance measures for the planning process are needed that would view the process from both internal and external points of view.

## STRATEGIES FOR ALLOCATION OF RESOURCES

More emphasis will be placed on the efficient allocation of resources in the 1980s than has been done for many years. This is due for the most part to the reduction of available resources for transportation activities. It will be important for the urban transportation planner to be cognizant of the need to allocate resources efficiently. It is important for the urban transportation planner to have skills in the areas discussed above. If the above functions can be completed successfully by utilizing appropriate skills, there should be a proper allocation of resources. Unless the urban transportation planner is willing to attain the skills needed for the successful completion of the above functions, he or she most likely will not be successful in the management and operations area of the transportation field. There is a need for the urban transportation planner in the management and operations area, but he or she must acquire new skills in order to function appropriately.

# Planning for Financing, Implementation, and Evaluation

Paul N. Bay

The overall objectives of the workshop on planning for financing, implementation, and evaluation were (a) to define the major planning needs of the 1980s in planning, programming, budgeting, and implementing projects or services; (b) to define the tools or methods needed for financial planning, implementation, and ongoing evaluation; and (c) to recommend changes in the federal regulations that would improve the processes of financial planning, programming, budgeting, implementation, and evaluation. This workshop as a whole reviewed and determined the general findings and major planning needs of the 1980s. However, two subcommittees or task forces were

formed to separately address tools and methods and federal regulations. The recommendations of these two task forces were then reviewed, modified, and adopted by the workshop as a whole. In addition, the workshop identified nine issue areas during the course of discussion, and these are summarized below.

## ISSUES IDENTIFIED

During the past 10 years, significant changes have taken place in transportation costs. Those changes require some entirely new approaches to planning, budgeting, and implementing projects and services. Better evaluation of completed projects and ongoing services is increasingly being demanded by a public concerned about cost effectiveness. Some new tools are beginning to be used, but more are needed. The following nine areas were considered.

1. *Uncertainty and shortfalls in funding.* In years past, highway revenues had a high degree of predictability from year to year, and costs were reasonably stable. Transit operating revenues came primarily from farebox receipts, and, in the early years of federal capital funding for transit, basic capital needs were assured of being met. For many reasons, these statements are no longer true. Traditional financial planning and programming methods—largely still in use—do not allow for the dynamics of year-to-year fluctuations in revenues, nor for the evaluation of risk and uncertainty inherent in cost estimation, nor yet for the probability of greatly straitened circumstances in the future.

2. *Analysis of trends in prices and revenues.* Much greater sophistication is necessary in methods for forecasting tax revenues and their relationship to the economy and to fuel prices. Similarly, techniques for pricing transit services must take into account many more complex factors than the simple price/demand elasticity curves of the past, including consumer price index (CPI), labor contracts, the cost of money, issues of equity, and long-term strategy for dealing with price increases. Estimating construction costs will also require better analysis of the construction cost index, the CPI, and labor contract dates.

3. *Capital costs versus rehabilitation versus long-term maintenance.* Two recent trends run counter to each other—the high cost of labor tends to call for more capital-intensive solutions, and the shortage of capital funds tends to call for “fix-it-up, wear-it-out” solutions. It is clear, however, that a significantly larger share of the transportation budget in both highway and transit is going toward maintenance and operations, and more management attention must be given to reducing total costs. Thus, improved engineering economy methods applied to life-cycle costing appear to be badly needed.

4. *Implementation in a multiple-jurisdiction setting.* Changing roles of federal, state, regional, and local governments in transportation finance have fractionalized and diffused the decisionmaking process. Most major projects must pass at least three levels of government no matter who the implementing agency is. Together with funding uncertainties, this setting makes the traditional, rather static methods of programming project implementation too cumbersome. New programming approaches that avoid costly delays by coordinating approvals and funding are highly desirable. Programming involving both highway and transit modes and