# Surveillance and Socioeconomic Forecasting

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Data collection, monitoring, and forecasting are key inputs to any transportation decision at the local level. The workshop participants discussed the data elements needed for overall transportation planning. Data are the foundations of most of the activities of the other workshops, and this workshop discussed the data needs for transit planning, traffic planning, system planning, and plan implementation. The breadth of experience of the participants in the workshop brought many different viewpoints to bear on the monitoring and forecasting elements of urban transportation planning.

The group began by discussing the issues in urban transportation planning identified in the papers by Dees and Stover. These discussions centered on three subjects:

1. The need to identify the unique problems of smaller urbanized areas and to develop planning programs to evaluate these needs,
2. The importance of timely information for decision makers on the potential consequences of official actions, and
3. The middleman role that metropolitan planning organizations (MPOs) are experiencing in the long-established relationships between the state and local governments.

After the general discussion, the paper by Sosslau pointed out the problems of secondary-source data, geography, and the use of relationships from other areas in specific planning programs. There was considerable discussion about the costs of data, the responsibilities of state and local governments and MPOs in collecting data, and the frequency of data-collection efforts.

The papers by Stockwell, Stuart, Studer, Silver, Fulton, and Roberts addressed the types of data needed, the availability of secondary-source data (including commercial data sources and the U.S. census), and the forecasting of growth parameters. Several conclusions and recommendations were made that may be applicable to planning processes for small and medium-sized urbanized areas, and a few new techniques were addressed.

The first session of the workshop on surveillance and forecasting discussed the overall planning process and its role in providing transportation improvements. Some of the questions discussed include the following:

1. Is the planning currently under way really a complex process?
2. What should the planning process accomplish?
3. What are the issues in the process?
4. What are the important characteristics of an area that determine the level of effort needed?

The discussion of these questions brought out the following ideas:

1. The process that is currently under way should not be considered complex when it is subdivided into two components: (a) long-range planning work and (b) current or short-range projections. The long-range system [transportation system management (TSM)] process is generally done by a central staff at the state level by using computer simulation. This work is done with the cooperation of local land-use planners who provide the state staff with selected socioeconomic data and future land-use plans. Short-range work is usually done by a local government or MPO and results in smaller, but yet important, projects.
2. The process should be sensitive to the needs of local elected officials in evaluating alternatives, should focus on realistic solutions, should consider projects that stimulate economic growth, and should address long-range issues on a sketch basis.
3. The issues in the process are both technical and administrative. From the technical side, there is a perceived need for direct technical assistance to help with improved quick-response techniques. The regulations were mentioned as the key administrative complication. Because local officials change frequently, federal regulations require continual exposure at the local level and possibly simplification.
4. The key characteristic of a smaller urbanized area that controls the type of planning and the degree of detail needed is the quality of the existing street and highway system.

There was some discussion in the workshop regarding the level of effort that a particular MPO should undertake. It was generally agreed that the rate of growth is a more important consideration than the size of an area. Fast-growing areas need a significantly more extensive planning process than do slow-growing areas, all else being equal. Another consideration is the current status and past history of the planning process. Similarly, the geographic constraints of an area have an important effect on the scope of the planning process for it.

The major comment on the papers by Dees and Stover was the contradictory views of the two regarding the staffing levels needed. Assuming a typical area as identified by Dees as requiring a staff of one or two persons, Stover indicates that a staff of six to eight persons would

be the proper level of effort. (In both cases, it is assumed that state personnel will provide basic data collection and computer assistance.) The workshop participants concluded that, if the state provides traffic counts and computer assistance, then the proper level of effort for a moderate- to slow-growth area would be one or two persons.

Some of the specific comments brought up by members of the workshop include the following:

1. The basic purpose of an improved planning process should be to improve the quality of decisions.
2. Many projects are being built without sufficient analysis.
3. A significant amount of planning effort is invested in satisfying federal requirements.
4. There is a difficult situation between the state governments and the MPOs—the state has the traffic-forecasting capability, but the local officials have the basic decision-making authority. In these situations, state officials must be careful not to preempt local decision making. Many local officials have not had sufficient experience in following through from planning to implementation.
5. In developing short-range programs, more traffic engineers should be brought into the process—traffic engineers from local and state governments as well as employees of MPOs.
6. The role of the MPO is a very difficult one. Essentially, it is between two levels of government. In some areas, a long-standing relationship between the state and local governments has been modified by the creation and staffing of the MPO.
7. Because of the concentration in smaller urbanized areas on corridor or project planning, a list of ideas should be prepared about how alternatives can be evaluated in such a framework. However, one should be careful to avoid developing a cookbook of procedures—procedures should be based on the best technical work available at the time. The result of such work would be to point out both the short-range and the long-range consequences of a decision.
8. With the current constraints, it appears that the TSM type of actions are the only workable solutions for present or expected problem areas. New facilities on new alignments are feasible only if they fit into a longer-range framework and the statewide system of arterials.
9. The problem of the self-fulfilling prophecy is that, with planning for only the short-range, programs for long-range activities that emphasize the need for additional funds will not be done. The difference between developing future plans that provide safe and efficient transportation and developing short-range programs may be the difference between obtaining additional funds or sustaining a program by using available resources. It is the larger metropolitan areas that are having problems implementing projects, not the smaller urbanized areas. All areas require financial planning and the identification of possible means of increasing revenues (such as searching out various federal programs).
10. The planning work programs should address local issues as well as proposed work tasks. Standardized work programs do not normally reflect the identification of local problems nor the planning activities necessary to evaluate these problems.
11. A primary requirement in many local areas is identification and evaluation of problems.
12. Currently, there is a credibility gap between state officials, MPOs, and local decision makers. Communication and education are needed to bridge the gap.
13. Decision makers need more support from transportation planners before acting on land-use or zoning revisions.

# Issues and Levels of Effort

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The first activity of this workshop was to address the type of data and the forecasting element needed to perform realistic urban transportation planning in smaller urbanized areas. Particular emphasis was given to the frequency, level of detail, and geographic systems of data and forecast.

## OBJECTIVES

The following objectives were defined:

1. Identification of the transportation and land-use problems faced by small and medium-sized communities,
2. Evaluation of the types of data that should be collected to identify these problems,
3. Identification of the frequency and costs of collecting these data,
4. Identification and evaluation of secondary-source data and geographic systems used in its collection and storage, and
5. Identification of the levels and details of the forecasting process needed for both short-range and long-range planning.

## ISSUES

1. How much of the data collected in the past has been useful?
2. What types of data should be collected now for problem identification and short-range and long-range planning?
3. Are any of the data-collection procedures used in long-range systems planning useful for corridor or project planning purposes?
4. Should any data be collected to satisfy the needs of local elected officials that is not needed for technical planning purposes?
5. How can models be simplified to require less-detailed and less-expensive data collection?
6. What staff levels and type of staff are needed to ensure proper data collection, analysis, and forecasting?