

Issues

1. Should more information be made available regarding the availability and use of census materials?
2. Should the mid-decade census include transportation-oriented data?
3. Should MPOs plan to collect system data in 1980 to supplement the census data?
4. How does an MPO overcome the two- to three-year lag in the availability of census data?
5. How can the quality (rather than the problems) of journey-to-work census data be emphasized?

FORECASTING

Objectives

The following objectives were defined:

1. Identification of the types of forecasts that are needed in a smaller urbanized area,

2. Identification of the precision needed for both short-range and long-range forecasts, and

3. Identification of the levels of forecasting needed for different purposes (e.g., policy planning, corridor or project planning, and public awareness), and for specific-purpose evaluation such as environmental and energy planning purposes.

Issues

1. Should alternative land-use plans be forecast for smaller urbanized areas?
2. Should the forecast be for the most likely future or for an interpretation of how the area should grow or develop?
3. How often should forecasts be revised?
4. How can forecasts reflect changing values, lifestyles, and technologies?
5. How can the planner increase the possibility that the forecast will be correct?

Types of Data That Should Be Monitored

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In discussing transportation planning and the data required, there is increasing need to be concerned with limiting the data collected to those items that are immediately applicable. Costly special-purpose surveys are becoming luxuries that few communities can afford. Reliance on secondary sources is often dependent on the degree of change in a community. If the decrease or increase in population is fairly small, then such information is of greater value. If significant land-use changes have occurred, a few special-purpose surveys may be needed, but they should be as limited in scope and cost as possible. Another way to defray the costs of data collection is to build cooperative relationships for joint surveys, whereby many research needs can be combined. The emphasis must be on compliance with citizens' growing demands that government spending be reduced. Planners must be willing to make the effort that is required without lessening the quality of their work.

What are the data needs for transportation planning in small and medium-sized communities? Before the specific data requirements for transportation planning can be discussed, some groundwork as to the concerns now being expressed nationally on limiting government spending should be considered. As we talk about transportation planning and the data requirements for it, we should more than ever be concerned with limiting the data collected to those items that can be positively identified as immediately applicable. Although we might, in earlier years, have enjoyed the luxury of collecting nonessential variables for possible use, we will now have to more rigorously evaluate their costs and, most likely, omit them from collection. This bare-bones philosophy of data collection will require transportation planners to more carefully evaluate their data requirements in the future. It will be necessary to use available secondary sources. The more costly special-purpose surveys will become luxuries that few transportation studies will be able to afford. What will be the effect of all this? Will the quality of planning suffer? It may to some degree but, in the long run, transportation system development in small cities will hardly be affected at all.

For the past nine years, Wichita, Kansas, has conducted a house-to-house annual survey of all of the socioeconomic characteristics needed in the planning process but, due to recent changes in state statutes and new local attitudes toward data collection, this survey will be ended at the conclusion of the 1979 edition. Thus, planners there will once again be turning to the U.S. Bureau of the Census and other secondary sources for data to be used in transportation planning.

THE DATA—WHAT WE NEED

The data needs for transportation planning (whether for large cities or small to medium-sized ones) are fairly similar, at least for the basics. Under the general heading of socioeconomic data, we of course need to know existing population size and a recent population forecast. In addition, we need the most recent land-use plan of existing and future land use. To the extent that data are available, we need information on median family income and on automobile ownership. From the land-use plan, we can obtain information on the numbers of dwelling units existing in the community and projections of future dwelling units by type, as well as existing and future employment figures. Under the category of transportation system data, we need to collect information on the geometrics of the existing street and highway system. Simplified methods of conducting origin-destination surveys will need to be devised and used. If the city has an operating transit system, we need information on the routes, headways, ridership, and equipment. Major traffic generators should be surveyed to determine their areas of use and employment data. Other data requirements include information about truck terminals, taxi operations, and the use of rail as a means of mass transit (in very small cities, most of these are insignificant and can be ignored). Volume counts are needed on the arterial system. These are the basic data essential for

understanding person mobility in an urban setting and should enable a transportation planner to forecast future travel patterns.

Whether secondary sources, such as U.S. Bureau of the Census printed reports or summary tapes, can be used in small to medium-sized cities will depend on the age of the data and the amount of growth since the last census. Generally speaking, if the degree of change in the community (the increase or decrease of population) has been small, then it is quite possible to use census data for information on the existing population, number of dwelling units, incomes, and automobile ownership. Of course, if the community does not have an active planning process (and that is most likely in cities of under 100 000 population), it may be necessary for transportation planners to assist in making forecasts of population, land use, income, and such.

If significant land-use changes have occurred since the last census, it may be necessary to conduct a few special-purpose surveys, but every effort should be made to use sampling techniques and reduce costs. When attempting to lay out a transportation network, the planner should make every effort to use information available from local governmental engineering offices. Aerial photographs can be used for quick and accurate updating of existing conditions and are reasonable in cost.

OBTAINING COOPERATION IN DATA COLLECTION

One way to help defray the costs of data collection is to spend more time in building cooperation for joint surveys. In many cities, a partnership can be struck whereby many research needs can be fulfilled in one combined data-collection effort. Let us face it. We need allies to justify costly inventories, and these allies can easily be marshalled if attention is given to their needs. Basic socioeconomic data are needed by many organizations—the local health department, the school system, the regional health-system agency, the county engineer, the extension agent, and the various city agencies such as those involved in urban renewal, the park department, and the regional planning agency. Such an effort was tried in Wichita some nine years ago and resulted in the formation of an interagency research committee. The purpose of the committee was to monitor all the research being conducted in the community and coordinate the data needs for those research efforts so as to lessen the cost of data acquisition for all the participants through cooperation and coordination. First, a coalition of data users was developed and some prime data needs were identified. The next step was to identify the suppliers. In many instances, the data users were also suppliers, but there are some significant examples of data suppliers who are not, in the urban planning sense, data users. The best example is the local county assessor. In Wichita, the Sedgwick County assessor was interested in the concept of jointly collecting data for everyone's use to save money and, after preparation and approval of a proposal, funding support was solicited

from the various data users. In 1971, \$50 000 was pledged for the purpose of the house-to-house survey to collect the data needed; over nine years, the cost has grown to \$130 000 for a house-to-house countywide survey. This experience is a unique example of inter-governmental cooperation that has been especially successful.

BARE-BONES PHILOSOPHY

With the current emphasis on eliminating excess government spending, planners will be expected to bring more efficiency to the planning process without lessening the overall quality of the product. Using secondary data sources and creating coalitions for cooperative data collection is one way to cut costs. Special-purpose surveys will require careful documentation as to their need. The transportation planner will need to show conclusively that the accuracy of the study will be seriously jeopardized without the special-purpose survey. Without some need of greater accuracy, it will be difficult if not impossible to justify the collection of primary data.

The question then seems to be, Can accurate forecasts be made with more limited data? The answer appears to be, Yes.

Stockwell's paper points out the specific data elements needed for planning. Although the types of data needed in larger areas are similar to those needed in smaller areas, the magnitudes, planning levels, details, and geographic specificity are different.

There is a wide variety of smaller-area topics that have unique characteristics reflective of the economic situation of the community. Data-collection details will have to be designed to capture the particular features of the smaller area.

The availability of secondary-source data was questioned. In the past, the transportation planner assumed the responsibility for collecting his or her own population statistics. The workshop participants agreed that greater coordination and cooperation will be needed in future data-collection activities to utilize all the available resources. The mechanism that will pull the agencies together will be funding. Those agencies that have the most financial resources will determine the data to be collected, how it is to be coded, and the geographical areas to which it will be summarized. Agencies or groups that have little or no funds will have to adjust.

A significant data resource for monitoring and measuring land-use changes is the assessor's office data. However, it was generally agreed that working with taxing parcels can be very difficult. Other organizations interested in data include the board of education, the United Givers Fund, and the utility companies.

Techniques that can be used to reduce the cost of data collection include short telephone interviews, mail-back surveys, and workplace surveys. The complexity of sampling techniques was noted as an obstacle to effective use of the various procedures.

The workshop participants considered that earlier recommendations for data to be collected in areas of 50 000 to 200 000 population are reasonable. These data items include the following:

Population	Vehicle kilometers of travel
Number of dwelling units	Transit revenue vehicle kilometers
Employment	Number of transit revenue passengers
Automobile registration	Total no. of transit passengers
Land use	Transit service area
Kilometers of roadway	Transit-vehicle age distribution