

journey-to-work survey useful in addressing these issues? I believe the answer is a qualified yes based on my review of weighing the assets and comparing them with the options available.

The foremost asset of the census journey-to-work data is their comprehensiveness. The information covers the entire urban area, even biregional areas such as the Baltimore-Washington region. It provides data on commuting from exurban areas. It has proven useful in a variety of ways. It provides control totals, socioeconomic data such as vehicle ownership, as well as modal data including vehicle occupancy. It is regarded as an independent, unbiased source at the local, state, and national levels. Together with other census data it forms the basis for making forecasts of small-area household and employment growth and change that drive our travel demand models.

The decennial census is a marvelous data collection service. Collecting the data is three-quarters of the battle. Relatively minor additions to content can provide the additional data needed. This is not to say that data on work travel are all that is needed. MPOs and others will have to supplement census data to cover nonwork travel and to keep travel patterns up to date. This will require small-scale continuing surveys and site-specific studies in urban areas to add this information.

Certain additional data are needed in order to make the data base more relevant to current planning issues. These include information on the leaving and arriving time for the work trip (temporal distributions) and, most importantly, whether a work trip to the "usual" work location was made yesterday and all the modes of travel used (as opposed to the usual mode).

Despite their shortcomings, the census journey-to-work data are a valuable asset for transportation planning. Although changes need to be made in 1990 to improve turnaround time and reliability, planning in the 1990s will require the kind of comprehensive information provided by this type of survey.

Transit agencies would also be well served by a question asking whether any household member used transit yesterday for a nonwork transit trip. This latter item would complete the picture of transit use in a region and enable the MPO and transit authority to develop relationships that would be extremely useful to compare and forecast total transit demand. Above all, user-based geography is essential if the data are to be relevant to needs, and the data should be made available to the states and MPOs as soon as possible.

George E. Hall:

I would like to take a somewhat different perspective. It seems to me that the data on journey to work and ownership of automobiles and so forth is of course extremely useful information for transportation planners, but it is also useful information for other people. There is a great deal of information in the UTPP that would be useful for marketers, other kinds of planners, and the like. It seems to me that if we begin to look at the questions on the journey to work and the other transportation questions from a different perspective, it would be useful not only for the other people out there--the commercial marketers, the planners, and those in other areas--but it would also be useful for the transportation people, because as you begin to build a constituency for those data and for other uses for those data, the demand will increase.

I am glad that I don't have the responsibility for the next comment I am going to make, but as demand begins to increase, the Census Bureau begins to fold these kinds of things into their ongoing programs, and I think that would be extremely valuable. You would not be getting a free good, but you would be moving toward getting information as a regular census product without its being

on a reimbursable basis. I believe that it would be useful for this group to begin to think about that perspective.

Again on a slightly different issue, from the standpoint of the nontransportation user, I think that it would be useful to get more general socioeconomic data from the census from the perspective of the workplace rather than from the perspective of the residence. There is a great deal of value here. For instance, daytime population is extremely important for all sorts of planning--commercial, governmental, and so forth--beyond transportation needs. So I would like to see more information based on work geography in addition to residential geography.

I would like to simply, and finally, echo something that George Wickstom said, which is that the world of work is changing rapidly. We have seen those changes at the end of the decade of the 1970s. We have seen them accelerate in the first half of the decade of the 1980s, and I suspect they will accelerate even more. In that I include multiple jobs and working at home.

Even though the unions and others aren't very happy about easing regulations on knitting at home and the like, the increase in high technology makes it less and less necessary to make a routine visit to a specific workplace, and it seems to me that these are the kinds of things that we do need to consider.

I would like to ask the Census Bureau to start thinking about the census of the year 2000 because I think by then there will be profound differences in the way we work and the way we travel, and I think this is exactly the right time to start thinking about the census in 2000, when you have a little time. As Peter Bounpane pointed out, even though you are starting 1990 pretests now, a lot of the information you get from testing in the 1980s will not be able to be incorporated into the process until the census of the year 2000. These are the perspectives I think are useful for the future, not only in transportation planning, but for all sorts of planning involving work, the labor force, place of work, and the like.

J. Douglas Carroll:

Well, I'm going to look at this a little bit differently than from an MPO perspective, because I've spent the last five years working with students. I am going to speculate about the issues that we are going to face in the 1990s. I've just received the first UTPP for New Jersey. We haven't really been able to use it yet, and this is the end of 1984. So the ability to get distance out of 1980 data in 1985 is what we are looking at today. This is late.

I think the kinds of problems in the 1990s are going to be much more likely associated with social equity issues, tax impacts, and things of that kind, and these data will lend themselves rather neatly to a whole series of questions of this sort: "Who is taxed and who benefits?" These are also often geographic issues, and they can be dealt with better if your geographic framework is readily manipulated and displayed.

I think a major problem that I foresee is that the geographic framework that was talked about this morning is still not really available. We ought to be able to buy that package, look at boundaries, gather and pull them into larger areas, smaller areas, break them apart, look at them on the computer screen, not have to store them more than once. And we ought to be able to stuff data in and look at the geographic graphics that come back. Until you do that, you really can't use this material fully. It is just too cumbersome. So I think that packaging of the geography is an absolutely critical issue; whether the U.S. Geological Survey does it or the Census Bureau, or some commercial agent, it is going to be crucial to have easy access to it. For 1990 I hope the TIGER allows