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

us to replace the GBF/DIME files with a single, national, seamless coding and mapping system. This will allow users to manipulate and use these tools and the vast store of census data easily and creatively. I think what we need is visual output material so users can use the data--if you don't use the material, it is crazy to collect it. So my advocacy is to be able to put the housing and the other travel and work-related census material into the same packages, the same bundles. Put them together.

Another thing I would like to see the census do is develop an in-house screening capability that takes care of their agony over "disclosure" automatically and allows them to prepackage material in a much more effective way for users. If it's a matter of special samples or anything else, prepackaging in the UTPP with all of the screening done in advance makes it very cumbersome. You ought to be able to send a request to the Census Bureau for what you want in the way of tabulations by small area. They can repackage it in a way that takes care of the disclosure problem. For example, looking at the behavior of families with different car and work configurations in their work travel and work travel times, you can put individual records together and get output and still avoid disclosure. The Census Bureau could do that, but it is not available to the researcher and to other people.

I'm just loaded with things that I would like to see happen in this time period that almost have to happen. If you are going to market this stuff, it has to happen in a different way than it has in the past. There is no way that the UTPP should be the model we are thinking of for 1990, in my opinion.

Specific problems at local sites will be more common in the 1990s. The impacts of new development will be of great concern locally. We are going to have to assess these much more objectively, and the models that you have for 1990 are going to be the models we are going to use for the 1990s to say where the next major activity center (MAC) is going to be in the Houston area and what its impacts will be. We've got to measure that more accurately, and we've got to worry about its consequences, charging the private sector for the costs of their impacts. Impact measures require this kind of material. Only the Census Bureau can stand up in court on these cases. So we've got to be able to get at that material for these kinds of social uses.

Certainly in marketing, I think the packaging of the daytime population and its characteristics is going to be crucial. That has to be done.

I think in the transportation sector we are going to be dealing mainly with programming issues, not capital planning issues, and the equity and the timing of the programming options are going to depend heavily on the impacts of these projects on the people who live there and work there. Our ability to describe social and economic impacts in a more flexible and accurate way will be tested in the 1990s.

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A question and answer session followed in which the opening panel discussion was used as the base for a broad-ranging discussion of needed future elements of census-related data programs in the 1990s. The following summarizes some of the comments and questions generated in that discussion.

Question: How many of the things we've talked about using the decennial census for could be better handled in a survey like the NPTS where there is more space for dealing with complex ideas?

Response: Although the NPTS is very valuable as a research and policy tool at the national level, when we need local, small-area data, only the decennial census will do. For instance, travel-time patterns are a purely local phenomenon. A small national sample could not be usefully applied locally.