

Introduction to Keynote Address

Arthur B. Sosslau

The transportation planning community's interest in the decennial census began in the late 1950s with the advent of comprehensive transportation studies in Detroit and Chicago and efforts related to the planning of the Interstate system. The then Highway Research Board launched a committee to persuade the Census Bureau to include questions on place of work and car ownership in the 1960 census. The federal agency involved was the Bureau of Public Roads, the forerunner of the Federal Highway Administration (FHWA).

In the 1960s the Census Bureau established a Small Area Data Advisory Committee on which a number of transportation professionals, among them Bill Garrison, Bob Barraclough, and Kevin Heanue, were most active. FHWA was again involved and funded part of the pretest for the 1970 census in New Haven in which a place-of-work address was requested. FHWA developed the specifications for the 1970 Urban Transportation Planning Package (UTPP) and also initiated several projects to test the usefulness of census data in transportation planning.

In 1970 the Highway Research Board sponsored a conference on the use of census data in transportation planning and 3 years later the Albuquerque conference, which reviewed the situation and recommended improvements for the Bureau of Census to consider relative to the 1980 census.

An ad hoc group of the TRB Committee on Transportation Information Systems and Data Requirements worked to develop the specifications for the 1980 UTPP. FHWA spearheaded the effort to have the development of the package funded by the U.S. Department of Transportation (DOT).

FHWA personnel, specifically Jim McDonnell and Rolf Schmitt, have also played an important role in developing this conference. The agency participated in funding and was instrumental in obtaining funds from other agencies within DOT.

Because of FHWA's continued interest and support of the use of census data for transportation planning, we are most pleased that our keynote speaker is Richard B. Robertson, FHWA's Associate Administrator for Planning and Policy Development.

Robertson has a master's in regional planning from the University of North Carolina, a certificate in traffic engineering from Yale University, and a B.S. in civil engineering from the Virginia Military Institute. Before joining FHWA in 1981, he was director of transportation for the Appalachian Regional Commission, director of state transportation planning in the office of the governor of Virginia, executive director of the Richmond Regional Planning District Commission, and an urban transportation planner with the Virginia Department of Highways.

Dick is a member of the American Society of Civil Engineers, the Institute of Traffic Engineers, and the American Planning Association. He has received two administrator achievement awards since joining FHWA. Most important, Dick has been a user of census data and is a strong supporter of the association between DOT and the Census Bureau and of the need for the census to continue its efforts in collecting information for transportation.

Keynote Address

Richard B. Robertson

It is a real pleasure for me to join you at this TRB mid-decade conference. In reviewing the roster of those in attendance, one can quickly note that TRB has assembled a very distinguished group of transportation planners and researchers with a wide variety of backgrounds and diverse experiences. You are a cross section of professionals knowledgeable about census products and their application in transportation planning. Coming together at this conference, you are in a position to offer expert guidance to the Bureau of the Census in the design of the 1990 census. The main question to be addressed at this conference is, "What are your needs for data from the 1990 census?" Your focus is 8 to 10 years in the future, which should not be that difficult for most of you because of your expertise.

In 1973, a similar conference was held in Albuquerque. The recommendations from that conference helped structure the 1980 census. I note in reading the Special Report from that conference that the products from the 1960 and 1970 censuses were very valuable for use in the urban transportation planning process.

My experience goes back to the data available after the 1960 census. At that time, I was an urban transportation planner for the Virginia Department of Highways and following that, executive director of the Richmond Regional Planning District Commission. I found the data generally accurate, always late, but extremely comprehensive. It is the comprehensive quality of the data that I found to be very satisfying for state and local governmental needs. We at FHWA and UMTA have supported work leading up to the 1980 census and the work required for the packaging of the data for state and local users. I had many meetings with the Bureau of the Census staff and found them to be receptive and willing to listen to our real needs. The structure of the 1970 and 1980 censuses indicates that the Bureau of the Census does listen. However, I might add that the Bureau of the Census has always been very reluctant to collect data that could not be tabulated by the place of interview.

John Keane, director of the Bureau of the Census, stated at the recent Geographic Areas Conference that the recommendations made at conferences such as these are vital to the Bureau of the Census planning process and that they will be given "serious and grateful consideration." I believe that Dr. Keane is sincere about searching out the needs of the transportation constituency and in trying to fulfill their needs. I also believe that we must work together to ensure that "consideration" is translated into "implementation."

FHWA and the Bureau of the Census have worked together over the last 30 years to provide information for a federally aided surface transportation program that incorporates a balanced role among the federal, state, and local governments. This cooperative effort has matured over the years, beginning in 1960 when the Bureau of the Census started collecting journey-to-work statistics. This partnership is still young in census terms, considering that the 1990 census will mark the 200th anniversary of the first census.

It is hoped that the results of the decennial census have produced substantial cost savings to state and local governments. The goals of the Department of Transportation (DOT), FHWA, and the Bureau of the Census should logically continue to be guided by the needs of state and local governments.

Excellent working relationships have been established between metropolitan planning organizations (MPOs), states, and the Bureau of the Census. These relationships will continue to improve as the planning for the 1990 census continues. As long-time participants in the census process, we must all recognize both the fiscal and time constraints that the Bureau of the Census is under in developing and producing the census. We offer them our support within FHWA to assure a comprehensive, accurate, and useful census with data provided in a timely manner.

As we did for the 1980 census, FHWA will coordinate the acquisition of materials from the state and local governments and continue working with the MPOs as we did informally in 1970 and 1980. Coding of the place of work is a most important item; it is FHWA's intention to see that this data element is part of the 1990 census.

As evidence of our direct interest in ensuring an effective working relationship between our agency and the Bureau of the Census, I recently reorganized my office to centralize census coordination activities in one division. This reorganization will assure a central focus within FHWA. We intend to invest considerable staff effort to help the Bureau of the Census define the needs of the transportation community for the 1990 decennial census.

Why are the transportation data needs so critical? The federal government distributes more than \$19 billion each year to the states for transportation purposes. The highway construction and safety program of \$15 billion is concentrated on the federal-aid systems, which include 22 percent of the nation's mileage and carry 80 percent of all highway travel. The condition and performance of these highways have a direct impact on the economy of the country. To ensure that adequate funding is provided, it is necessary that Congress and the Administration have accurate estimates of future needs. Census data play a valuable role in determining these needs estimates. Census data give insight into changes in social and demographic characteristics that directly affect travel habits, population shifts, and population growth and change. These forecasts then become the basis for estimating future highway needs and for developing funding recommendations.

At the federal level we develop studies of a policy nature for use by the Congress. These studies have substantial input from state transportation agencies that evaluate transportation programs for their state legislatures. Local governments, often through an MPO, develop transportation plans according to their needs and forecast future growth and change in their areas.

The demographic changes in metropolitan areas may have a tremendous impact on the transportation systems in local areas. Accurate and timely information on these changes is of utmost importance to national, state, and local planners and policy makers. We all know that the development pattern of metropolitan areas has changed from the traditional single economic, employment, and social center (the central business district) to multiple centers located around the metropolitan area. Such significant demographic changes have major effects on political decision making, federal domestic assistance programs, and the economic vitality of these areas--and of course to transportation. To maximize the effectiveness of our response to these changes, it is critical that demographic and journey-to-work trends be monitored through a comprehensive program. Small-area data on places of work and commuting patterns are critical if we are to meet our responsibilities.

In our report to Congress in July 1983 on the status of the nation's highways, we estimated that during the next 17 years it would cost more than \$300 billion to maintain the current performance of the major highway systems. To remove some of the serious deterioration problems and provide for better traffic flow with less congestion, it would cost more than \$400 billion. These needs were determined assuming a conservative annual traffic growth of 2.5 percent. To show you how conservative we are in this Administration, traffic

grew at the rate of 3 percent per year during the decade of the 1970s--a time of oil embargoes and escalating travel costs. For the last 3 years, traffic has been increasing at the rate of about 3.5 percent per year. During 1984, highway travel increased at the rate of 4.5 percent over the comparable period in 1983.

The economic base of this country is rooted in its ability to continually absorb more people into the work force. An expanding economy is a national goal. As a society, our goal is to have as many people working as possible and to minimize the unemployment rate. However, jobs that cannot be made accessible to the labor force are jobs that cannot be filled, and therefore resources are wasted and costs are increased.

We in the transportation community are charged to develop a system that provides for the safe and efficient movement of people and goods--with particular emphasis on the journey-to-work trip. In order to invest our scarce highway revenues in the most effective manner, we must be able to evaluate the impact of both short-term (3 to 5 years) and long-term (10 to 20 years) investments.

Before we can plan for the future, we must know the characteristics of existing traffic. To adequately compare the desirability of improving one facility over another, we must know how and why traffic moves between small geographic areas, such as traffic analysis zones. The reason that we advocate traffic analysis zones is because they are the locally developed analysis areas that have been in existence in most metropolitan areas for more than 20 years. They are reasonable in size, contain homogeneous land uses, and are designed to be bounded by arterial streets and highways.

Between 1960 and 1980, the labor force increased by 37 million people--a 54 percent increase. In those 20 years, federal, state, and local governments spent \$450 billion on highway improvements to try to keep up with this increasing demand for travel. Between 1980 and 2000, we expect an additional 32 million people to enter the work force. Most of these workers will be added to the existing peak-hour traffic, which will cause even more serious problems on our congested metropolitan highways. Therefore, in order to properly plan for transportation improvements, we must know where these workers live and where they work. The information must be available at a geographic level that permits accurate impact analysis within traffic zones, and it must be delivered in a timely and usable manner.

State and local governments are currently spending more than \$100 million of FHWA and UMTA funds each year for urban transportation planning activities and such expenditures are expected to continue. Using these funds and census demographic and journey-to-work data, transportation improvements will be planned and programmed. Some of the projects will be built, but many will not be constructed due to lack of funds. The availability of timely and accurate data will help ensure that the most effective projects will be funded.

Federal-aid transit programs are another user of census data for policy development and program evaluation purposes. The UMTA programs have grown from less than \$1 billion per year in 1973 to more than \$4 billion per year in 1984. In order for UMTA to conduct an objective analysis of discretionary projects, it must have a data base that only the decennial census can provide. With this common information base, objective interregional evaluations can be undertaken by UMTA and the most cost-effective projects identified for funding.

In local planning, transit analysis requires small-area travel data such as that available from the 1970 and 1980 censuses. For example, access walking distance is a very important factor in determining whether people will use transit. As a consequence, specific bus-route line markets tend to be long and thin. Only the census can provide the detailed data necessary to properly analyze the transit potential for these unique pieces of geography. My associates in UMTA join FHWA in supporting the journey-to-work program of the Bureau of the Census.

The role of the decennial census data, along with transportation surveys conducted between censuses, is becoming more important over time. The current need for transportation statistics by federal, state, and local governments has never been greater. At the same time, resources for data collection are diminishing.

Although the decennial census may be the centerpiece of national data sources for transportation planning, it does not stand alone. It is joined by the Nationwide Personal Transportation Study (NPTS), which is funded entirely by DOT and provides data on all travel, both work and nonwork. In addition, we also have the American Housing Survey (AHS), funded by the Department of Housing and Urban Development. Both the NPTS and the AHS are valuable resources to the transportation community. DOT intends to continue to fund the NPTS as part of the national transportation surveys. We expect the decision makers of the Bureau of the Census to continue to include transportation-related data in the decennial census at a geographical level that is required by local, state, and federal governments. A session on the NPTS will be held as part of this conference. We are interested in hearing your needs for structuring the reports for the recently completed 1983-1984 survey and receiving your input for the design of the next survey in 1987-1988.

Are there reasonable alternatives to the decennial census, the AHS, and the NPTS? I don't think so. One alternative that might be proposed would be for individual states and metropolitan areas to conduct their own surveys. This would involve much work and would result in locally based data. However, it is likely that the statistics would not be comparable between areas nor published in a standard format for use by others outside the area. Such surveys would be extremely costly and I believe the overall accuracy would be far less than that achieved by the Bureau of the Census.

It is very important that this conference develop detailed recommendations for the Bureau of the Census. The conference at Albuquerque in 1973 resulted in a series of recommendations. Some of these were addressed in designing the 1980 census; some were not. The recommendations included statements on (a) the role of TRB in annual meetings of the UTPP user group, (b) the usefulness of the UTPP in local planning activities, (c) the geographic coding detail for workplaces, (d) the content of the questionnaire with regard to items such as departure time and travel time to work, (e) the development of a worker file, and (f) the need for a liaison person who is knowledgeable in all census transportation-related matters. At this conference there will be more discussion of these recommendations and how they were satisfied. We in FHWA and the Bureau of the Census need your insight again if we are to meet the challenges facing us in transportation.

The recommendations of this conference are vitally important to us at FHWA. We, along with UMTA, wonder if the \$260,000 we invested in developing the computer program that allows the Bureau of the Census to develop the UTPP tapes was a good investment. We must make that judgment again, but before we do, we must evaluate the uses of the products developed. The first positive piece of evidence to indicate that we invested wisely was that more than 150 packages were delivered to entire states, large and small metropolitan areas, new urbanized areas, and rural counties with small urban places as compared with 121 packages for the 1970 census. This is not to indicate, however, that some technical problems have not arisen.

During the conference we will be extremely interested in learning of both the successes and failures of the 1980 census and its products from your perspective. Was your local investment in purchasing the package worthwhile? Did all that work in accumulating census blocks into traffic analysis zones pay off? Was the accuracy of the workplace coding adequate for your needs? Was the UTPP design too complex to easily decode? Was the 10 percent sample of workplaces a large enough sample for your needs? Was the 1984 delivery period

too far removed from the actual census? Were the other products of the Bureau of the Census sufficiently detailed to allow for the elimination of parts of the UTPP? Again, was your local investment in staff time and scarce funds worthwhile for the product that you have now received and are using?

Tomorrow you will concentrate on discussing the uses of the 1980 census data, which will be followed by discussions of needs for the 1990 census. The Bureau of the Census has identified four issues that are of substantial interest:

1. Level of geographic coding for the place-of-work question,
2. Subject matter to be included in the questionnaire,
3. Overall sample size, and
4. Cost and who should pay for block or traffic-analysis-zone coding.

On the last point, I believe that the best way for traffic-analysis-zone coding to be accomplished is as a funded component of the decennial census. The Bureau of the Census, supported by FHWA, must convince the Office of Management and Budget and the Congress as to the merits of this investment. Although I will not exclude the possibility of some fiscal support from FHWA, we prefer other funding solutions. The bottom line is that we must work together to acquire these data and do whatever is necessary to achieve this objective.

The purpose of this conference is to identify data needs and to develop recommendations. The product must be a report that can be used in designing the 1990 census. The members of this conference should reach a consensus on the recommendations. If this is done, most of the proposals are likely to be implemented. This conference has been timed so that the recommendations can be utilized by the Bureau of the Census in developing concepts for the pretests, which are scheduled to begin in 1985.

You should leave this conference with a better understanding of the Bureau of the Census plans and programs on the one hand and the transportation planning community's needs on the other. But in order to come up with conference recommendations, we want to identify the limitations of the 1980 census. How can the 1990 census be improved to provide the necessary data for your needs? The results of your efforts will be a report, with recommendations, from each of the six working groups. I am confident that the next few days will prove to be highly productive ones for the data-user community, as well as the Bureau of the Census and the Department of Transportation.

I wish I could participate in your deliberations, but since that is not possible I look forward to working with you to implement your recommendations.