A Retrospective Look at the Albuquerque Conference Recommendations

Alan E. Pisarski

In late summer of 1973, a conference was held in Albuquerque, New Mexico, regarding transportation uses of census data. The 1970 decennial census had obtained an extensive data set on journey-to-work information. For the first time, the federal government had made available a standardized package of special tabulations with locally defined geography to expedite and expand local use of the census data. The package, called the Urban Transportation Planning Package (UTPP), clearly met an important need. Before its development, users had the choice of using standard census reports and products, with limited treatment of transportation subjects, or making a request for custom-built tabulations for their area, with consequent high costs and a long wait for their order. With the extensive but standardized package of tabulations, users lost a little in the flexibility to custom tailor the product to their individual needs but gained substantially in reduced delays and costs in obtaining transportation-related census data. A major benefit of this approach was the comparability between cities in the data products developed.

The participants at the conference in Albuquerque met to share their experiences with that package, to work out joint approaches to its more effective use, to resolve problems, and to look ahead to the 1980 census with the intent of producing a better product for future users. Their deliberations, findings, and recommendations, which materially improved the 1980 census program, are recorded in Transportation Research Board Special Report 145 (1).

The Albuquerque conference met in August 1973 with much the same mission and context as this conference in Orlando. The Albuquerque conference occurred more than a year earlier in the decennial census planning time sequence, but delays in the production of the 1980 data due to litigation, additional field work, and so forth, actually place the two conferences closer together in the time sequence of events in their respective decades.

One of the problems at Albuquerque was that the conference occurred early in the distribution phase of UTPP production. Few metropolitan planning organizations (MPOs) had the package and fewer had had the time to gain real experience with its application. In August 1973, according to the conference record, 112 packages had been ordered and less than half had been delivered (7 in 1972, 44 in 1973). As of the date of this conference, 140 packages of the 1980 UTPP had been delivered, with another 15 or so in preparation. If 1983 is compared with 1973, the situation looks worse than last time. Only about 20 packages had been delivered by August 1983. This was attributable in part to delays in the availability of final census data tapes that are input to the UTPP. However, the small number of packages delivered by August 1983 was also a result of modifications made to the standard UTPP processing system at the request of several of the early purchasers. The standard UTPP was developed to cover one Standard Metropolitan Statistical Area (SMSA), but systems to produce multi-SMSA, statewide, nonmetropolitan-area, and other types of packages were developed by census programmers to meet user needs. If the UTPP had been produced without these modifications, many MPOs would not have found the data to be useful in their planning regions.

The main reason that the 1973 and 1984 conferences were held so early in the planning sequence is that even with a decade between censuses, the time period available between receipt of the old product and the start of planning for the next is brief. In fact, selecting a point in that brief window of opportunity is the major determinant of when these conferences must meet.

In that context it can be said that many of those who met in Albuquerque in 1973 had immediate, operational concerns on their minds. The recommendations reflect this. They are heavily focused on getting out the 1970 products; knowing more about the prospective quality of the data, especially geography, before ordering; and clearing up problems of ordering, costing, and initiating processing. But still the conference participants took the time and displayed considerable foresight in laying out recommendations for 1980.

SHORT-TERM RECOMMENDATIONS

Many of the recommendations produced in 1973 were focused on better handling of the 1970 data. These short-term recommendations are given in Table 1. The assessment of the results of those recommendations--the "scorecard"--treats them in terms of both the response in the 1970s and the current response to parallel problems in the 1980s. A summary of the scorecard on the short-term recommendations would probably be given a grade of B. Most of the recommendations resulted in some response, although not always of the recommended scale or scope.

Communication

At Albuquerque there was intense concern about improved communication among users and between users and producers. That concern manifested itself in a continuing level of activity and interchange throughout the decade. A

TABLE 1 Short-Term Recommendations

Recommendation	Results
Communication	
Journey-to-work newsletter	No (coverage in other places)
Directory of users	Exists (available on request from the Census Bureau)
Technical reporting	Yes (more needed)
Regular meetings	Yes (more needed)
National and statewide analysis	Yes—some national analysis and summarization of 1970 data; limited statewide analysis
UTPP analysis	
Origin-destination studies versus UTPP	Yes—studies done
UTPP as update	No definitive method, updating frequent
Recode option (let MPO recode poor geocoding	Yes (in New York only)
UTPP purchase conditions (Caveat Emptor, better prepurchase information)	Yes—fundamentally successful—quality and information on quality improved
Technical support	
FHWA to assist in UTPP use	Yes
Better data processing	Yes—UTPS-UTPP achieved (at least partially)
Special tabulations	
Worker files	No (done in 1970, but demand in 1980 low)
Costs and specifications	Yes (cost improvements)

newsletter was proposed. None ever materialized, but other instruments picked up the topic, for example, the Census Bureau's monthly Data User News, the Transportation SIG newsletter of the Urban and Regional Information Systems Association (URISA), and documents from FHWA, UMTA, and TRB. The recommendation for a newsletter remains valid today. It was proposed that a directory of users and buyers of the package be produced. Such a directory exists for the 1980 UTPP and is available from the Census Bureau. Regular meetings and technical reporting were proposed. Obviously, this conference in Orlando is one positive response to that need. But throughout the 1970s and early 1980s, TRB's Committee on Transportation Information Systems and Data Requirements and FHWA sponsored many technical sessions on the topic. More could have been done, but the record was positive.

National and Statewide Analysis

The record on national and statewide analysis is poor. It was proposed that extensive comparative analysis be undertaken using UTPP data at the national and state levels. Information is not readily available on all that might have occurred, but certainly no major studies were undertaken. Summary documents were produced from the 1970 journey-to-work data but more for trend analysis. The picture for 1980 does not look much brighter.

UTPP Analysis

It was proposed that studies be undertaken to link the UTPP to traditional origin-destination studies and to use it to update local data bases. Studies were done to link the two data sources definitionally but no one method--no cookbook approach--emerged. Updating techniques were frequent, and data base updating became a key function of the UTPP.

Recode Option

Given high variability in the level of geographic coding in 1970, it was recommended that MPOs be enabled to recode the geography for their region. This created disclosure problems and only in the case of New York was recoding undertaken in 1970, at considerable expense to the Tri-State Regional Planning Commission. This may again become a concern for the 1990s, given the financial constraints being faced.

UTPP Purchase Conditions

The recommendation was concerned with the lack of adequate information on the prospective quality of geographic coding in a region before the commitment to purchase the package. This problem was considered seriously, and both the quality and the information about the quality of geocoding have improved for 1980.

Technical Support

The request for greater technical support regarding data processing and general assistance on UTPP achieved many of its goals. Certainly more extensive

FHWA-UMTA field support could be envisioned, but the general level of support has been effective.

Special Tabulations

Emphasis was placed on other needs not met by the 1970 UTPP. Worker files (individual worker records with coarse geography to avoid disclosure) and other special tabulations were proposed. Worker files were built in 1970, particularly for New York. In 1980, the capabilities exist but demand so far has been low.

LONG-TERM RECOMMENDATIONS

The long-term recommendations from Albuquerque were clustered into five major groupings (Table 2). The first group (first by design) dealt with geocoding, which was and still is a major source of concern. The next two groups treated data content, separated into needed modifications to existing data items and wholly new content needs. The fourth area dealt with administrative and processing problems and the fifth with organizing for the 1980 census. The overall scorecard or the long-term recommendations is good--at least a B and

TABLE 2 Long-Term Recommendations

Recommendation	Results
Geocoding	
Use local skills	Yes—to compile coding materials
Local major generator data	Yes
Evaluate address format	Yes (added text re major generators)
Use X-Y coordinates	No (possible)
Outside block areas	Yes—major improvements
Data items	
Modifications	
Actual automobiles (3+)	No (some resolution)
Mode choice	
Add change of mode	No
Add motorcycle	Yes
Add bicycle	Yes
Part-time and multiple-job workers	No
New	
Time of departure or travel time or both	Yes (travel time)
Nonwork total or detailed data	No
Workplace by land use categories	No
Administration and processing of UTPP	
Cost reduction	Yes
Delivery-time reduction	No
Centralized DOT funding	No
Expanded prepurchase information	Yes
Expanded support software	Yes (UTPS)
Organization for 1980	
Develop 1980 committee	Yes
Coordinate experience	No/Yes
Communicate	No
Guide 1980 plan	Yes
Alternative data sources	Yes (partly)
More conferences	Yes
Census liaison	Yes

perhaps an A-. This provides encouragement to the current effort. It suggests that if recommendations are properly structured and well-supported, the system is responsive. If this conference can achieve similar results, it will have been a success.

Geocoding

There was a family of recommendations dealing with geocoding; most of them focused on the real weaknesses in the 1970 geographic system. The first recommendation dealt with utilization of local coding skills in 1980. It was proposed that a mechanism be found to permit local transportation agency personnel to assist in coding addresses. Although this did not happen directly, local personnel were used to assist in compiling local coding materials. This was the subject of the second recommendation, which cited the need for special expertise in coding local major generator addresses. Linked to these, another recommendation proposed modification to the address-recording format on the census form. This was accomplished to the extent that text was added to explain that major generators could be entered by respondents as legitimate addresses and to explain how to record them. A fourth recommendation proposed greater use of X-Y coordinate systems to identify and present work data. Although the census capability in coordinate systems has expanded appreciably, they are not used as a regular product of census output. Finally, recommendations were made to clarify coding and processing outside the block areas. In this case the Bureau of the Census has made substantial improvements, expanding the block areas for coding and the commutersheds for processing.

Data Items

Modifications

The first recommendation in the group of modifications proposed that automobile ownership be recorded in actual numbers and the category for three or more automobiles be deleted. Although the proposed solution was not adopted, the problem it addressed was somewhat resolved by splitting the vehicle category into two groups: (a) automobiles and (b) vans and trucks.

A second recommendation proposed changes to the mode-choice question. It proposed a structure for obtaining information on change of mode where more than one mode of travel was used for work. This was not done and the problem persists.

A second part of this recommendation proposed adding motorcycles and bicycles to the mode-choice list. Both of these modes were added by the Bureau of the Census. The final recommendation in this group dealt with modifications in job questions to identify part-time and multiple-job workers. No changes have been made in this area.

New

Three new areas for data items were proposed. The first recommended adding either departure time to work or travel time to work or both to the questionnaire. As is known, travel time was successfully added to the questionnaire. Departure time remains an issue. The second proposed area for new content was in nonwork-related travel. It was recommended that at a minimum a total trip count be recorded, or, if possible, detailed trip data for selected purposes be obtained. No progress was made in this area. Finally, it was

proposed that workplaces be classified by a set of land use categories. This proposal was not adopted by the Census Bureau.

Administration and Processing

There were a number of recommendations dealing with the logistics and financing of the UTPP. The first recommendation observed that both time to delivery and product costs needed to be reduced. In terms of cost, success was achieved. Package costs of the 1980 UTPP are about the same in dollars as in 1973 but the dollars are much inflated. Delivery times have actually worsened compared with 1970 due to delays in the preparation of the input data to the UTPP and user-requested modifications to the basic package. The UTPP program itself was better set up in 1980 than in 1970.

A third recommendation proposed that better information be available in 1980 regarding the prospective quality of geocoding before package purchase. This certainly has been achieved, for which the Census Bureau deserves considerable credit. A final recommendation on this group proposed that expanded software be developed to support UTPP. This goal has been partially achieved through the Urban Transportation Planning System. A series of procedures based on case studies to adapt UTPP data to urban applications is being produced. These activities are described in Transportation Planners' Guide to Using the 1980 Census (1).

Organization for 1980 Planning

A family of proposed actions to assist in planning for 1980 were recommended. These actions were to be undertaken by a working committee. They included coordination, communication, guidance, and evaluation. Although the committee that resulted was not as formal as the one proposed, it did in fact achieve most of the activities recommended.

SUMMARY

It should be noted that the Albuquerque conference provided a positive thrust to efforts to improve the journey-to-work data program. Its recommended actions were acted on to a degree rare in the process of changing large systems. Many of its observations and recommendations retain currency 11 years later and can serve usefully to guide the efforts at this conference.

REFERENCES

1. Census Data and Urban Transportation Planning. Special Report 145. TRB, National Research Council, Washington, D.C., 1974.
2. Transportation Planners' Guide to Using the 1980 Census. FHWA, U.S. Department of Transportation, Jan. 1983.