

SUMMARY OF THE PANEL WORKSHOPS

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During the conference the conferees were divided into 4 panel workshops to discuss specific issues related to (a) land use impacts; (b) impacts on travel volumes and traffic flow characteristics by all modes; (c) impacts on social and environmental characteristics; and (d) impacts on economics of the region and transportation systems. The panels attempted to define the significant issues and to determine research needs in order to assess the impact of the BART system on the San Francisco metropolitan region. On the final day of the conference a plenary session was held to review the activities of the individual panel workshops and to provide an opportunity for a general discussion.

PANEL 1: LAND USE IMPACTS

Britton Harris, chairman

The principal recommendation of Panel 1 has largely to do with data systems. The evaluation of land use changes influenced by BART depends substantially on the availability of information; this would require the creation of a data bank. The data system should be a regionwide system and serve many planning purposes besides the analysis of the BART impact. This data system should be coordinated with other types of efforts, and a 1975 census of the region should be encouraged. The data system should be concerned primarily with the Bay Area, and the panel does not recommend the establishment of an independent control area outside of the Bay Area in which parallel data would be collected. The qualitative and quantitative information of local development probably has to be investigated in detail and not on an aggregate basis. When control areas in non-BART regions are required, they should be established along the lines presented in the paper by Boyce.

The types of information to be gathered in the data bank must be based on considerations of potential users. One of the users might be the BARTD itself, especially for questions concerning system planning and extensions. Other users would be local planning agencies who are concerned with zoning and who have to adapt to the BART system. Other metropolitan regions throughout the country will be looking at the BART system to determine its economic feasibility and its ability to service the needs of the region. Likewise, national and state governments who have to allocate funds for transit will be concerned with the social, economic, and environmental effects of the BART system and its ability to help solve the passenger-transportation demands on an economically sound basis. Studies must be related to decisions that are both short term and long term.

Some of the specific research questions to be addressed relate to (a) land use impacts on central business districts such as San Francisco and Oakland and other local impacts and (b) development in corridors that are served by the BART system and those that are not and within counties and between counties. The welfare aspects of distribution and location of various segments of the population should be considered, including distribution, location, and accessibility by different segments of the population. These studies ought to be in a regional context and should include those parts of the region not served by the BART system.

Regarding land use models, the panel was inclined to pass a "self denying ordinance." There is a professional bias in favor of modeling, but the panel thought there was no clear way that models can aid in defining the impact of the BART system except for formulating some theoretical or conceptual understanding.

Schneider's work on the degree to which a region has been structured and Boyce's work on "regional temperatures" provide some theoretical ideas on which to base impact studies. However, there is still difficulty in interpreting social values of various

measures of change. For example, is the higher structuring of land use toward that of New York City, as compared to Los Angeles, a good or a bad thing?

In creating a data bank one should consider that the BART impact studies should last over a period of 10 to 20 years. Present emphasis should be on the data to be collected, and some of the questions of measurement and interpretation can be deferred until the impact of the BART system can be measured in 5 to 10 years. The priority now is to capture the data from which later impacts of the BART system may be assessed.

PANEL 2: IMPACTS ON TRAVEL VOLUMES AND TRAFFIC FLOW CHARACTERISTICS BY ALL MODES

Norman Kennedy, chairman

Following the recommendation in Zettel's paper, the panel directed its attention to considerations of traffic volumes and traffic flows as the initial starting point for the impact research. The panel thought that, because the primary purpose of the BART system is to relieve the traffic congestion problem, the impacts of the BART system must be measured primarily in terms of traffic volumes and traffic flow changes. If there are no significant changes in traffic volume and traffic flow, the BART system will not have a major impact on other transportation modes, land use, or on the economic, social, or environmental characteristics of the region.

The panel divided its considerations into 4 major topic headings: (a) major parts of proposed research, (b) significant items of research, (c) roles in research and action programs, and (d) possible beneficiaries of impact studies.

The panel defined 4 major parts for research: (a) research on methodologies—for example, how to improve home interview techniques, accident data for transit, and coordination of data collection with other agencies; (b) data collection activity and data base structuring; (c) interpretation of data; and (d) evaluation. The panel thought that some of the present survey techniques, though satisfactory, were extremely costly, and better ways were needed to obtain data. For example, the current home interview technique is costly and has a number of deficiencies. Research on how to collect similar data would be worthwhile. One suggestion for collecting data on the journey to work is to use an interview technique at the work site instead of at home.

The panel identified 3 items as being significant for research: (a) transportation consumers; (b) the transportation system; and (c) individual corridors. The research related to transport consumers should consider effects of automobile ownership, trip-making by mode, and trip lengths by mode. The data would most likely be obtained through interviews. Research relating to the transportation system should consider effects of persons making trips and vehicles making trips, system speeds, system accessibility, terminals, system safety, system reliability, system costs including travel costs, and comfort and convenience. Such data probably could be collected through traffic counts, studies, and interviews. Research related to the individual corridors—bridges, gateways, and selected freeways—is in progress and has been for quite some time by a number of agencies. A great deal of data is available from these various sources. Data on traffic flow and traffic volume were collected in the recently completed BATS study. The 1970 Census will reveal information on the journey to work, and presumably data systems initiated by BATS will be continued.

The third major heading—roles in research—was selected as an attempt to define the techniques in getting research in this area started and coordinated. One suggestion was to have a joint committee to coordinate the research and collect the data, perhaps under the auspices of the Regional Transportation Planning Committee. Another suggestion was to divide the responsibilities and have the Regional Transportation Planning Committee undertake research related to the transportation consumer and individual corridors and have universities or other research agencies undertake research relating to the transportation systems.

The panel considered the possible beneficiaries of such impact studies. Among possible beneficiaries are local communities and BARTD for consideration of system extensions; other cities in planning comparable systems; federal, state, and local agencies for funding and transportation policy making; and transportation analysts in evaluating models and prediction techniques and evaluating their accuracy.