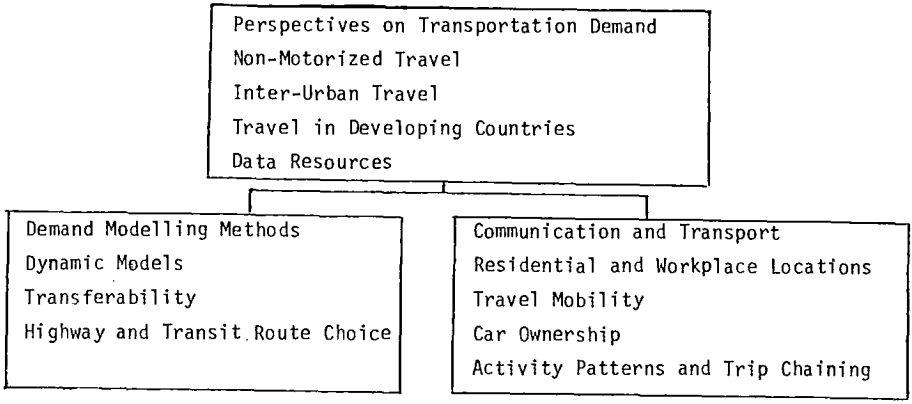
Closing Remarks: Sub-theme A--"Man and His Transport Behavior" by M. Ben-Akiva

The structure of the program of sub-theme A is shown in the following figure.

Figure

Structure of Sub-Theme A Program



It consisted of three blocks of sessions, The opening block of sessions emphasized current perspectives on transport demand models and emerging areas of applications. This was followed by two parallel streams of sessions. One stream dealt with modelling oriented studies, and the other stream was concerned with exploratory analyses. The following remarks are intended to highlight several clear and unique observations that could be made and conclusions that could be drawn from the paper presentations and from the discussions that were held during these sessions.

The observation that stands out is the diversity of analysis approaches and the balance between modelling oriented analyses and less structured exploratory analyses. For example, some papers were concerned with classical trip lenght distributions; aggregate time series analysis; disaggregate models; and very detailed micro-simulation models; while others presented less structured analyses such as an in-depth invesitgation of a very small sample of about 50 observations. It was shown that unstructured analyses can provide excellent foundations for follow-up studies which are statistically rigorous. So, in this conference we have observed a very good balance between different approaches to analysis and modelling of transport behavior.

The second point that came through very clearly, is the need for simplified analytical tools and analysis methodologies that would be particularly useful in the context of developing countries. We found that in both the developing and the developed countries there is a clear need to have an explicit treatment of non-

motorized modes of travel. Valid statistical analyses of travel behavior could be performed with surveys that omit walking trips. However, new insights into travel behavior and useful directions for transport policy can be gained by placing more emphasis on non-motorized modes and by developing better ways of collecting data on walking trips.

My third observation concerns the complexity of travel behavior and activity patterns and how researchers are analyzing the complex interactions between persons and activities. Several authors have presented detailed descriptive data analyses and micro-simulation models which capture these interactions and demonstrate their importance in travel demand predictions.

The fourth observation that I would like to make is the increasing diversity of areas of applications of transport demand analysis. The program included special sessions on topics related to transportation in developing countries, inter-urban transportation, and analysis of urban residential locations. I would like to make a special note about the session on tele-communication which demonstrated the need to consider the total tele-communication and transportation system. The interaction that is usually assumed between theses two sub-systems is that of substitution. However, there is evidence that there also exists a complimentarity relationship and therefore studies that only consider the substitution effect will tend to overestimate the impact of increasing tele-communication on transport.

Several sessions dealt with very specific and very detailed modelling techniques. The presented papers have shown how modelling techniques are being refined in applications and research. One very useful paper refuted some misleading concepts that were proposed for modelling travel behavior. Another paper considered alternative decision rules and demonstrated how some approximations perform better than others. The session devoted to dynamic effects in transport behavior included several papers that were concerned with models and empirical observations of the so-called hysteresis effect; in which the effects of transport policy changes, e.g., raising or decreasing fares, are asymmetrical.

The sixth noteworthy point is the usefulness of utilizing diverse data resources in transportation studies. This we explored in several sessions. For many years urban transportation planners have relied heavily on a single cross-sectional data set. We have seen in this conference that a variety of data resources such as; before and after impact studies, aggregate time series statistics, stated preferences surveys, as well as traditional revealed preferences data, can be used together in transport studies. For example, the session on car ownership demonstrated the insights to be gained from in-depth analysis of a very small sample and from highly aggregated time series and cross-sectional data.

Finally my seventh and last observation concerns an important topic in transport demand studies which is the analysis of spatial and temporal transferability. We have seen clear evidence of how very simple transport models are not transferable between cultures and how, within a given cultural field, some models are highly stable over a period of several years and between different urbanized areas. This presents encouraging evidence.

In conclusion, I think that a lot of careful and serious research is taking place in this area of transport research and that emerging techniques are increasingly being applied to a wider range of contexts.

Thank you.