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There are two major areas in which we see a critical need for more appropriate analytical tools to support transportation decisionmaking at the strategic policy and systems-planning levels. These are the areas of urban transportation and intercity goods movement and personal travel.

In the urban area, we need to be better equipped to test policy or system-level decisions by answering a series of "what if" questions, which would need to address the whole range of exogenous, as well as endogenous, variables affecting our traditional views of the transportation supply-and-demand relationships.

In the intercity area (nonautomobile mode), we are entering a period in which state or provincial levels of government in North America are identifying a role for themselves that is significantly different from the traditional regulatory one. We do not have the same in-depth knowledge and understanding of this essentially private-enterprise domain as we do of urban transportation and rural highway sectors.

New policies and programs are attempting to address intercity needs on the basis of minimal standards of accessibility, mobility, shipper and passenger service, etc., while at the same time seeking to preserve or enhance the commercial viability of the private carriers.

In the intercity area, we need methods of determining the current and potential market responses to any new initiatives for which government is the proponent. The implications of any initiatives proposed by government agencies need to be tested beforehand and monitored during implementation against factors related to public response, revenues and costs, carrier viability, and public expenditures.

More specifically, our future efforts in the area of demand analysis and forecasting techniques must emphasize the development and application of methods that are more responsive to the quick-turnaround requirements of today's decisionmakers. In other words, we need methods that are fast, economical in terms of cost and input data, and transparent to the decisionmakers. We must be able to easily comprehend the relationship among the model structure, the inputs, the outputs, and the sensitivity of the decision choices to these variables within the broader context of uncertainty in the environment that affects the transportation sector.

In order to be relevant to real-world requirements, travel demand analysis and forecasting methods need to be translated, simplified, and applied as the discrete steps of the traditional four-stage process rather than as mystical computerized operations contained within a black box.

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If we look at transport from a European perspective, it should be kept in mind that in most European countries, and certainly in the Netherlands, the role of the private car is different from that in the United States. For most journeys there is an alternative to car use formed by a combination of public transport, cycling, and walking.

The 1960s can be characterized as a period of growth. The main questions for the analysts then were how fast and how far this growth would go. They had to produce growth rates and situation levels, and although social benefit-cost methods were developed, their influence on levels of investment and general policies was not very great.

During the 1970s we were faced with constrained growth. Constraints were encountered in the fields of energy, spatial aspects, and the environment. Also, the intentions for so-called minority groups or transport-disadvantaged developed.

Since the 1980s have only just started, it is very difficult to characterize this decade. It can be a decade of little growth, no growth, or decline. This implies that the uncertainty that was present in existing analysis methods due to insufficient understanding of the decision processes or inadequate mathematical analysis techniques is now overwhelmed by a fundamental uncertainty about the external factors influencing transport. This situation requires new planning methods in which forecasts with sensitivity analyses will have to be replaced by the development of diverging scenarios.

In the Netherlands you can now see a slight decline in car traffic (not car ownership) and a considerable growth in public transport. Similar developments are occurring in other countries on the continent of Europe.

Research needs can be qualified as follows:

1. Financial analysis methods for transit and highway operations linked to an evaluation of effects of policies on users;
2. Information on travel needs and their importance (not all needs can be satisfied--giving financial constraints and choices in transport policy will work to the advantage of some and the disadvantage of others; in France a proposal for inland transport law is based on the concept of satisfaction of needs);
3. Behavior of travelers in situations where available income declines; and
4. Development of life-styles and influences of opinion leaders in this respect.

In all these activities, individual differences in behavior and evaluations should not be considered as a statistical disturbance but respected as an essential element of freedom.