

## DISCUSSION

Richard J. Bouchard, Office of Environmental and Urban Research,  
U. S. Department of Transportation

•IN REVIEWING the precise language of the preceding five papers, I was impressed first by the fact that no pervasive single theme was at the heart of this material, and second by a feeling that we were talking in terms that were not exactly real. Three of the papers are concerned with the highway route-location problem, one with improving planning models to allow for consideration of traveler benefits, and one with an investigation of implementation strategies for planners to follow.

All five papers address the planning process in some fashion but from very diverse perspectives. The approaches to the planning process range from changing the decision-making process to utilizing the computer to assist the engineer. Only one of the five papers seems to address the process in terms of the real world.

In making specific comments on each of these papers, I approach the subject with a bias. I believe that each of us in the engineering and planning professions should be aware that society, or much of it, has changed its view of what transportation can and should be doing to determine and improve the quality of daily life. Slowly but surely, the citizen is learning to make society and its system work for him and to make government and its plans and programs responsive to his needs and desires. The stopping of a freeway, an airport, a transit station, or housing project is no longer an impossible accomplishment for citizens; in fact, it is becoming a common occurrence. At the same time, these citizens are clearly expressing, and rightly so, their desire and their need to be involved in all stages of project decision-making, particularly the planning and design phases. As technicians, we must respond to this concern, and I suggest that another computer model does not represent the type of response to which I am referring.

We must recognize, rather, some of the problems inherent in the present institutional and technical processes by which society and government interact. It should be emphasized that both institutional and technical processes must be present to ensure this interaction. In this respect, I fear that in recent years we have devoted most of our attention to the technical process and have seriously neglected its institutional component.

With regard to the paper by Turner and Miles, I have the idea that they have made some progress with the perplexing problem of how to make the computer more responsive to changes in the relative importance of some decision-making factors. My problem with their approach concerns its lack of factors to express current environmental and social attitudes that, I think, create by far the most difficult problems for transportation officials throughout the country. We have little trouble locating routes that satisfy travel demands and that minimize traditional construction costs and problems. In other words, are the potential benefits of this technique worth the costs in utilizing it?

I am extremely pleased that Steinberg makes a very strong case that, while some of the problems associated with locating urban highway routes (and other transportation facilities, as well, I might add), are inherent in the benefit-cost analysis now commonly practiced, the more fundamental problems lie with the governmental framework within which the analysis is conducted. She suggests that route-location decisions are more properly joint political-technical decisions that should be made not at the state level by career civil servants but at the local level by elected legislative bodies. This, of course, presents a real dilemma for many people because, even though most of us have maintained for years that transportation routes must be planned on a metropolitan basis as an integral part of regional development planning, only marginal progress has been made in providing within our constitutional system a mechanism to accomplish this purpose and to afford equitable access to this mechanism for all elements of society. Despite

the relative lack of historical progress in this area, I might suggest that the 1970 public transportation legislation, which provides for a \$10 billion federal investment program in urban transit facilities during the next 12 years, and the 1970 highway legislation, which provides for the establishment of an urban highway system and for an expanded federal commitment to assisting in the solution of local traffic problems, might well raise the hopes of many that the day is not far off when such metropolitan decision-making mechanisms may be a reality. Coupled with the Environmental Policy Act of 1969, which states clearly that the environmental impacts of all major federal actions, including transportation actions, must be made known explicitly to the public at large prior to the commitment of funds, I think we can likewise look forward to the broadening of the traditional benefit-cost analysis to include some of the nontransportation factors that are outlined in Steinberg's paper.

The conclusion reached by Stuart and Dickey, that the planners's influence in developing implementation strategies for transportation projects is rather small, should not come as a surprise. Implementing multimillion dollar decisions, which have grave consequences to many, is a difficult task not approachable from the traditional ivory tower in which many planners enjoy, or at least seem to enjoy, their occupation. Implementation strategies, in my opinion, are oriented more toward seeking timely opportunities to advance a project, which do not necessarily come according to a schedule, than toward subjection to a computer analysis such as was presented.

The paper by Smith is one that I think presents a reasonable technical approach to the problem of highway route location that, given the changes in institutional processes suggested by Steinberg, might well provide a framework for developing a first-cut technical solution to this problem for refinement by nontechnical considerations. On the positive side, this approach makes a real attempt to quantify some social and environmental factors and to provide a way to trade these off with transportation and engineering factors. This is a sorely needed tool in the transportation planning business. My concern lies in three aspects of the procedure. First, I fail to see where the opportunity is provided for citizen and elected officials to input to the process. Second, the analysis deals with general area-wide impacts rather than specific impacts to various population elements of the community as suggested by Steinberg and many others. Third, I am not at all certain that the best transportation solution is the one with the least social cost. Is it not more likely to be the one with the greatest social benefit?

Finally, Haney correctly points out the inconsistencies between the various models now used in transportation planning. I am quick to add, however, that I do not feel qualified to comment on the improvements that he suggests.

It seems that a number of real problems exist in transportation planning and decision-making. In other words, the urban transportation planning process is not very closely linked with the project-planning process.

I think it is entirely clear that the current urban transportation planning process has little bearing on when or where a particular transportation improvement will be made, and it does not have very much to say about some of the broader elements of its design. There is a great need to bring this process to bear on decision-making, but the question is how.

Drawing on Steinberg's approach to using elected officials in transportation decision-making, I suggest that they be given the legal authority to define needs and set priorities for system actions. In other words, they might carry out all transportation planning activities. Second, I suggest that the design concept team approach, which is emerging with some success across the country, might be the second level of planning, which is generated as decisions on priorities are made on the first level but prior to the time that specific routes and design details are set. This level is strongly oriented toward citizen participation coupled with the types of trade-off analysis suggested by Smith and Turner and Miles. The design concept team approach is the real decision-making phase. Finally, there is the project-planning phase that is the traditional engineering phase now in existence.

It seems to me that the preceding framework offers the following advantages:

1. Balance of power between state and local levels of government at the system scale;
2. Heavy study of impacts viewed both technically and from a citizen viewpoint, prior to precise project planning and in response to locally set priorities; and
3. Forces planning to mean something.

The point I want to emphasize is that decision-making is not modeling. It is an institutional process that may be enhanced by modeling, and the three-letter word "may" is emphasized.