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Papers —

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## TRANSPORTATION RESEARCH FORUM

### Planning at the Policy Level: The Interaction of the Private and Government Sectors

#### by A. Scheffer Lang\*

E veryone who has ever been associated with planning for transportation must agree that the process in any of its aspects is complicated. Because it is so complicated, many of the organizations and agencies responsible for investment and operating, regulatory and promotional decisions in transportation have shied away from explicit planning efforts.

The long-standing problems and the massive investment requirements which we face in transportation, however, have brought us to a point where we can no longer avoid facing this complicated task head-on. While our ability to undertake explicit planning efforts may always be limited, we have made enough progress in the techniques of planning that we should be able to do better than we are doing now.

#### **Factors Which Complicate Transportation Planning**

Some of the factors which complicate the business of planning for transportation warrant special mention by way of a preface to any discussion of the particular problems associated with the interactions between the public and private sectors in the transportation planning process.

First, transportation in all its aspects is preeminently an area of joint public and private endeavor. No public agency or private organization can realistically make transportation policy or investment decisions without taking careful account of plans in the other sector.

Second, an unusually large and diverse set of public and private institutions share this joint responsibility. All of these institutions have some voice in transportation decisions; and many of them have some sort of direct financial responsibilities, as well.

Third, quite aside from the involvement of public agencies in the provision and operation of transportation facilities, transportation has always been considered a "public service," with all which that implies in the way of governmental involvement.

Fourth, the largest share of the transportation which is produced is purchased by individual citizens, who collectively comprise the most diverse market a producer could confront.

Fifth, transportation is all bound up with the fundamental goals and objectives of our society. These goals and objectives are changing in complex

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and uncertain ways. Thus, our planning efforts must work within a value structure which is at best uncertain, a problem rendered more difficult by the unusually long lead times associated with many critical transportation decisions.

Sixth, transportation is full of what engineers call "systems effects." That is, it is difficult to isolate small pieces of our transportation system for purposes of planning and analysis. Put another way, the "side effects" of any investment or policy changes are almost always as significant as the direct effect of those changes.

#### Multiple Public Jurisdiction

The problem of multiple public jurisdictions is particularly important in transportation. There is, first, a multiplicity of agencies at the federal level which are involved in transportation, a situation which has been dealt with only in part by the creation of the Department of Transportation.

This picture is, of course, further complicated by the varying jurisdictional arrangement of agencies at the state level and the even more widely varying arrangements typical of county, city and town governments. Overlaying these bewildering sets of state and local governmental jurisdictions is an assortment of regional agencies, some of whose functions are restricted to transportation, and others whose functions touch this area only in part.

A private transportation company that tries to do any serious long-range planning must confront this almost hopeless array of government agencies; an array of agencies whose own planning, or lack thereof, can critically affect what both can and should be done by any private company operating within their jurisdiction. In particular, private companies need a framework of assumptions about public policies and plans within which they can do their own planning. Many of these assumptions, moreover, are ones that only government can realistically provide. Among others, these assumptions include: 1) economic and population growth rate, 2) land use controls, 3) the probable structure of government transportation investment programs.

One should note at this point that many of these government agencies also need information from the private sector about investment and operating plans. It is difficult, as an example, for a local public agency to deal realistically with the problem of truck traffic in its jurisdiction without some notion of the plans of both railroads and truck lines.

#### The Relative Disadvantage of Private Companies

Our private transportation companies operate at some significant disadvantage to their public agency counterparts when it comes to planning their own investment programs. First, the element of financial risk in the private sector carries with it a threat of institutional disaster not generally shared by public agencies. This in itself implies different, if not conflicting criteria for judging alternative investment plans.

Second, social benefit criteria – allowing credit to be taken, among other things, for the generation of consumer surplus – are not operational for private companies. That is, a private company cannot take credit for externalities adjudged socially desirable in rationalizing its own capital expenditures.

Third, private companies often lack the same measure of direct control over the conditions under which their investments may be used. I do not mean to imply here that the market for the transportation produced by a private company is ever certain, but merely that private companies cannot so readily legislate the conditions under which their service will be used.

#### The Data Problem

Rational planning whether public or private, requires data. In a market setting as complex as that for transportation the data requirements are particularly critical.

The long lead times typical of transportation investments make the data requirements doubly critical. As an example, estimating national highway requirements requires a very large bank of data on highway use and highway plant capacity without which adequate forecasts become expensive guesses.

We are in particularly serious trouble on the matter of transportation data. It is appropriate to quote what the Department of Transportation has had to say on this problem in the report of May 1969 to the House Committee on Appropriations entitled, "Transportation Information." There they said as follows:

What the nation receives for the 170 billion dollars it presently spends each year on the transportation of people and goods (20% of the GNP) depends in large measure on the quality of decisions made by a wide variety of government and industry organizations . . .

Frequently the information base for making rational decisions involving large transportation expenditures is inadequate. Transportation information which supports analysis, forecasting and planning for decision-making . . . is regarded as critical.

This D.O.T. report goes on to recommend a five-year initial program costing approximately thirty-five million dollars to begin equipping us with the data that we so sorely need. Public transportation agencies and private transportation companies have what is perhaps their strongest bond of common interest in the development of such a bank of data for planning purposes as the D.O.T. report recommends.

#### The Problem of Doing Someone Else's Planning

Another kind of problem deserves mention here: the problem associated with the otherwise attractive notion — in this complex institutional setting of highly centralized planning efforts. While it is suggested below that we should be thinking in terms of strengthened planning efforts at the national level, we cannot escape the practical realization that each agency and each company must in the long run do its own thinking.

Experience with recent efforts, both public and private, at the national level suggest that planning can be effective only to the extent that it is par-

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Original from PENN STATE ticipatory. Our experience with metropolitan area transportation planning seems to bear this out even more strongly; the current difficulties with our urban expressway program being a case in point.

#### The Special Problem of Research and Development

Research and development poses still another planning problem. We have reached a point with our transportation technology where the development, market testing, and introduction of systems with significantly improved performance involves both very large sums of money and great financial and institutional risks. Here, SST is a prime example.

There seems general agreement now that government has to share these risks, or at the very least create conditions under which private industry can afford to assume such risk by itself. Without government involvement one way or the other, the kinds of technology we are now considering will not emerge as quickly as it could or should. Thus, technological innovation in transportation has come to require a measure of cooperation and interaction between the public and private sectors that goes beyond that which has been usual in the past.

Apropos of the comments about doing someone else's planning, it can also be stated that government cannot develop new technology and merely hand it to those who must build and use that technology. Government has developed systems for space and defense and handed those systems to itself; but that is quite another matter. The private organizations that are to build and use new transportation technology must be in on the development of that technology from the outset, even though they may be incapable of undertaking the research, development, and demonstration job all by themselves.

Finally, because we are talking about long lead times and large investments in uncertain and complicated markets, planning has come to play a special role in relation to transportation research and development and vice versa. We need the ability to forecast market conditions and requirements which is inherent in our planning process if we are to evaluate more reliably what our technological possibilities are. Without such a rational evaluation, we cannot make research and development investments without running a serious risk that we will have developed something which the market does not need, or will not use. In other words, our planning must help us rationalize research and development programs in both the public and private sectors which have become too large to pursue on hunch or technological salesmanship alone.

At the same time, when we are faced with the possibility of major technological developments emerging in relatively short time periods (say, five to fifteen years) as a result of "forced-draft" research and development programs of a kind which has now become commonplace, we can no longer exclude possible new technology from our planning itself. Thus, both public and private transportation planning must now consider alternative investment programs that include new technology as well as old.

#### Structuring Our Collective Transportation Planning Efforts

Against the background of these various problems which affect the inter-

action between government and the private sector, let me go on to suggest how our collective efforts in transportation planning must inevitably structure themselves.

First, the federal government — specifically the Department of Transportation — must take a strong lead in everything that has to do with transportation planning. This includes:

1) The development of forecasting and forecasting techniques.

2) The collection and dissemination of data to other government agencies, other levels of government, and private industry.

3) The development of analytical techniques for planning.

4) The encouragement of participatory planning at all levels.

5) The creation of regional transportation bodies capable of dealing with problems beyond the control of individual states of metropolitan areas.

6) The provision of a framework of assumptions within which private transportation companies can plan meaningfully.

7) The rationalization of our overall programs of research and development, both public and private.

Note here, I am suggesting that D.O.T. should take the lead in these matters. I am not suggesting that it should attempt to do these things single-handedly.

Second, the states must move to create regional planning efforts, just as the cities have moved to create metropolitan area planning efforts. These efforts should involve, however, the private transportation companies which have such a large share of the ultimate responsibility for the transportation that the public needs and buys.

Third, our private companies must frankly concede the key role of government in planning for transportation and the relative disadvantage under which they inevitably operate in this regard. This means that they must join government more explicitly and force government to join them!

Fourth, our private transportation companies must recognize that more and more industry-wide and nation-wide thinking and planning is both inevitable and desirable. With the large programs of capital investment which these companies face, the large programs of research and development which they together with government must undertake, and the increasing risks associated with the introduction of new technology and the construction of larger and larger systems of transportation, there is no other choice.

Finally, I would suggest again that everyone must get in on the data business together. The Department of Transportation can and should take the lead; but they cannot go far without the active cooperation of all levels of government, and, most importantly, the transportation industry. Planning starts with data. Until we have better data in transportation, neither public agencies nor private companies will be able to do the kind of planning we now find increasingly imperative. In all of this there is a hierarchy of planning efforts that should emerge. As suggested immediately above it is a hierarchy with a lot of horizontal as well as vertical interaction. A more explicit recognition of this hierarchy of efforts could go a long way toward dealing with the complexity in transportation planning.

#### Summary

Because our transportation system is complex, the market for transportation is complex, and our structure of public and private transportation institutions is complex, policy and investment planning in transportation is a very difficult business.

Our private companies, individually and collectively, must have some guidelines, a "framework of assumptions," from government within which they can do their own planning.

Everyone has to have data for planning. No one is going to have the data they need, however, until everyone in the public and private sectors gets together to provide it.

The interaction between research and development and planning is becoming increasingly important. Public and private planning for transportation must take this increasingly into account.

No one can let someone else do his planning for him. Thus, each agency or company must involve itself in transportation planning, even though some national institution, public or private, assumes large parts of the planning burden.

The U.S. Department of Transportation has a special leadership role in transportation planning; but it cannot presume to take over entirely in an area where every institutional entity must become involved. Private companies, moreover, cannot sit back and wait for D.O.T. to take over.

#### CONCLUSION

We have to double our existing national transportation capacity in less than a generation. We also need badly to do many of our transportation jobs better than we are doing them today.

More effective and explicit planning is surely a key to both of these requirements. In transportation above all, this implies a degree of cooperation and coordination between the public and private sectors that goes well beyond what we have had in the past.

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