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# A Federal Role in Freight Planning and Finance

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## Summary

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There is widespread consensus that there are serious problems in the U.S. supply chain network that threaten the nation's economy and productivity; the most prominent of these is congestion. There is also consensus that traditional revenue sources are both inadequate and inappropriate to respond to these problems. Because congestion has multiple causes and the costs of congestion are experienced largely by local stakeholders, it is difficult to identify a clear national role in addressing freight congestion and related problems.

In response to these problems, this monograph describes four elements of a federal freight policy designed to address growing challenges faced by the U.S. freight network in an environment dominated by declining revenues and public resistance to increasing taxes. Challenges in the supply chain network currently cost U.S. shippers, businesses, and passengers billions of dollars per year in lost time and productivity, increased transport costs, and lack of reliability, while at the same time disrupting communities and creating health and environmental problems. Although the freight network is complex and involves many modes, our major focus is the highway component of the freight network, which is experiencing many problems related to the aging of facilities, congestion, rising costs, and declining revenues from user fees. The sources of these problems are complex and rarely result from capacity constraints alone. The costs resulting from these problems are often what economists call *externalities* that are largely borne locally and fall most heavily upon private stakeholders. Highway congestion and air pollution are two examples of such problems.

There is a great deal of consensus as to the nature of problems faced by public agencies, and there is even some agreement on appropriate objectives for federal policy, even though there is much disagreement about particular strategies, projects, or investments. Six objectives or goals commonly advanced for a new federal freight policy are presented in this monograph:

- Improve freight planning at every level of government by improving freight data, disseminating best practices and promising approaches, and increasing institutional capacity.
- Provide federal financial assistance to appropriate freight projects based on justifiable and sustainable revenue sources.
- Condition federal assistance to freight projects on specific and measurable performance criteria.
- Require any federally supported freight projects to have a substantial user-pays component.
- Reform regulations that inhibit the competitiveness of various freight modes or inhibit the active involvement of the private sector in freight projects.
- Respond to market failures, such as the lack of cooperative efforts, and positive and negative externalities from freight projects.

After developing these six objectives, the study goes on to describe four elements of a federal freight policy strategy that respond to those six objectives. The four critical elements of a national program are:

- Develop a federal capital freight assistance program using sustainable revenue sources, basing funding decisions explicitly on specific performance measures while addressing externalities and spillovers.
- Reform regulations that directly or indirectly inhibit or distort competition among freight modes or place financial restrictions on the participation of private stakeholders.
- Increase user-based pricing to improve the economic efficiency of the freight network and create a sustainable revenue source for

federal freight programs, recognizing that these two goals are not always compatible.

- Enhance the ability of state, regional, and local planners to address pressing freight issues by improving the quality of freight data, knowledge of best practices, and the capacity of local institutions to more effectively plan complicated and complex freight projects.

A key dimension of the first element is determining what share of an economically efficient freight project is in the national interest, requiring other beneficiaries to pay their fair share of project costs. Traditional cost-benefit analysis looks at aggregate benefits and costs and concludes that projects should or should not be undertaken, depending on the sums of both benefits and costs. But freight projects often benefit and impose costs on different governmental bodies at the same time, and aggregate benefits and costs do not address the concerns of the different stakeholders. In this study, we argue that since benefits and costs are accrued and incurred by different levels of government, it is possible to assess a benefit-cost ratio for each party to the funding. A fair division of cost responsibility would divide costs in proportion to the benefits that accrue to different levels of government.

The approach developed in this study does not accept several key elements of many widely discussed freight proposals. We reject the notion that the federal government should have a significant financial role in funding freight infrastructure improvements simply because of the special nature of the freight network, its key role in national productivity, or the fact that freight often moves on the interstate highway system. We also do not conclude that the federal role should always be a minor one, occasioned only by the failure of other stakeholders and beneficiaries to act. Instead, we argue that the federal government should develop policies and programs that identify the specific local, regional, and national beneficiaries of various freight projects and should apportion costs as fairly as possible among all beneficiaries. The federal government would fund only that portion of the project that creates a national benefit, roughly equivalent to widely diffuse benefits and those that cannot be attributed in reasonable ways to those who can or should be made to pay.

To be cost-effective, federal assistance should be specifically matched to the needs of highly rated freight projects. Possible national responses depend on the nature of the problem being addressed by a freight or intermodal project. The federal response could involve any or all of the following:

- providing financial support to bring stakeholders together and conduct preliminary planning efforts
- offering loan guarantees and loan subsidies for those projects that could be entirely self-sufficient over time but need startup costs
- providing outright capital grants limited to the federal share of proposed projects.

There is substantial discussion of the need for new or different national freight regulations, particularly those that affect prices and thus competition between the freight modes and inhibit the involvement of the private sector in freight projects. After analyzing and discussing the many issues associated with federal freight regulations, we recommend several changes to them that might make the system more efficient while serving important national goals related to safety and efficiency. Many potential regulatory reforms are discussed in the body of this monograph. If appropriate, the federal government may wish to fund demonstration projects to test the most controversial regulatory revisions that are considered. The most widely discussed regulatory elements advanced for additional study are as follows:

- allowing private-sector participants to obtain funding from the Transportation Infrastructure Finance and Innovation Act (TIFIA) and comparable railroad programs (perhaps limited as to amount)
- identifying the specific regulatory barriers to greater use of current federal grant programs for private or public-private freight projects and developing ways to relax or remove them
- permitting combination or heavier trucks on limited routes to determine the impact and public response (Transportation Research Board [TRB], 2002).

We also describe appropriate and sustainable financing mechanisms for each element of the proposed freight strategy and make a strong case for user-based financing of most facilities. There is an important federal role in expanding current pricing efforts to fund pilot or demonstration freight pricing projects, such as greater national use of vehicle miles traveled (VMT) charges on trucks that vary, at a minimum, by distance and weight per axle, time of day, and, when technically feasible, the type of roadway or facility being used. The federal government could also fund a demonstration project to test truck-only or commercial motor vehicle (CMV)-only lanes.

The transportation policy and research communities have long noted the importance of better data to support policymaking, and this study also takes note of the desperate need for improved freight data collection and dissemination. Federal leadership is essential to the development of policy-responsive databases. There is also a critical need for federal sponsorship of research on how to expand data collection and enhance the availability of data for local, regional, and state policymakers. Progress is needed in these areas if the other recommendations included in this monograph are to be implemented.