

NATIONAL COOPERATIVE FREIGHT RESEARCH PROGRAM

STRATEGIC PLAN - 2007

VISION:

Relevant and credible information will be used by policy makers to make the Nation's multi-modal freight transportation system more efficient, reliable, safe, and secure.

MISSION:

The National Cooperative Freight Research Program will conduct research and disseminate timely findings that will inform investment and operations decisions affecting the performance of the freight transportation system.

OBJECTIVES AND STRATEGIES:

I. ANALYZE THE BUSINESS OF FREIGHT TRANSPORTATION

Trends in the global and national movement of freight and business logistics will likely place greater demands on the Nation's freight transportation system. NCFRP research will provide better information and clearer insight into the market-driven factors that lead and respond to current and future freight demand.

- (a) describe the U.S. multimodal freight transportation system, highlighting the interactions among the modes and intermodal connections
- (b) provide a deeper understanding of the factors that drive freight demand and the major trends that will shape future demand
- (c) describe the effects of the various public subsidies, incentives, taxes, and regulations that affect the freight transportation system

II. DEVELOP RELIABLE DATA AND TOOLS FOR ANALYSIS OF FREIGHT TRANSPORTATION

Successful decision making is based on credible and reliable analysis, which itself depends on quality data. NCFRP research will identify improvements in collecting, analyzing, and using data and will develop tools for analyzing and managing the impacts (e.g., economic, safety, security, environmental, health, energy, community) of freight transportation decisions.

- (a) define performance measures that should be used to gauge the effectiveness and efficiency of the freight transportation system
- (b) identify data sources and gaps for each performance measure
- (c) recommend improvements in collection, analysis, and use of data on the performance of the freight transportation system

- (d) improve freight-flow models for use in making decisions that affect the freight transportation system.
- (e) develop methods for examining the community and environmental impacts of different freight strategies.

III. EXPLORE OPERATIONAL IMPROVEMENTS IN FREIGHT TRANSPORTATION

Enhancing system performance does not focus solely on providing new infrastructure but also includes operational strategies and more efficient management of existing capacity. NCFRP research will provide guidance on implementing promising operational and system management improvements.

- (a) describe operational practices and low-cost system enhancements that have been successful in maximizing the utility of the existing freight transportation infrastructure
- (b) catalog ways in which those responsible for moving freight respond to constraints on the capacity of the freight system
- (c) examine the effect of pricing and other economic strategies in providing more efficient utilization of the transportation network

IV. EVALUATE INVESTMENT DECISIONS FOR ADDING PHYSICAL CAPACITY TO THE FREIGHT TRANSPORTATION SYSTEM

Quantifying benefits, including return on investment, is an important input into decision making. NCFRP research will provide information and guidance on making sound decisions for adding capacity where investment makes economic sense.

- (a) evaluate how public sector decisions affect the performance of, and contribute to the return on investment in, the multimodal freight transportation system
- (b) recommend analytical tools that transportation agencies can use to assess freight infrastructure investments and to facilitate comparisons among alternative improvements, including those in different modes
- (c) examine factors related to the success of innovative projects that enhance system productivity, such as truck-only lanes

V. IDENTIFY WAYS TO STRENGTHEN THE INSTITUTIONAL FRAMEWORK FOR THE FREIGHT TRANSPORTATION SYSTEM

Institutional capacity is often a prerequisite for successful planning and implementation of freight-oriented strategies. NCFRP research will identify institutional barriers, organizational capacity issues and innovative solutions to freight transportation challenges. Of particular interest is the evolving concept of public-private partnerships that often does not conform to jurisdictional boundaries nor the traditional dividing line between government and business.

- (a) describe successful institutional mechanisms for the current and future freight industry
- (b) identify potential changes in existing institutions to address needs and opportunities for efficient freight transportation
- (c) examine and assess the advantages and disadvantages of evolving public-private partnership arrangements for providing transportation infrastructure, in particular as they foster improvements to the movement of freight.