



# Freight Transportation



This series of fact sheets highlights our expertise in Transportation and covers the following topics:

- **Commuter Choice and Transportation Demand Management**
- **Environmental Analysis and Assessment**
- **Freight Transportation**
- **Global Climate Change**
- **Hazardous Materials**
- **Land Use and Transportation Systems**
- **Strategic Congestion and Mobility**
- **Sustainable Development**

ICF Consulting's transportation practice specializes in addressing issues at the nexus of transportation and energy, economic development, and the environment. We develop transportation policy, plans and projects within the context of sustainable development, linking transportation issues with our economic development, environmental, and energy qualifications to support project feasibility studies and regional or national planning exercises. Our understanding of modeling tools as well as the financial and economic considerations of transportation projects underlies our capabilities. We design and execute transport solutions for all modes.

## ICF Consulting's Experience

ICF Consulting has extensive experience and a unique understanding of all modes and operations of the freight industry. This includes trucking, rail, air, waterborne, and pipeline as well as intermodal freight. Our work often addresses the relationships between freight modes and opportunities for better integration of freight systems. For the U.S. Environmental Protection Agency (EPA), we examined the potential environmental effects of feasible mode shifts from truck to rail and/or barge in some of the nation's heaviest interstate freight corridors.

ICF Consulting is nationally recognized for our capabilities in the area of freight transportation and economic development. We are developing the framework for a freight investment benefit/cost model for the Federal Highway Administration (FHWA) that tackles one of the most challenging transportation economics issues facing practitioners today. Given the relationship between freight transportation and business decisions, how can practitioners account for the full impact of freight projects in the project planning and alternatives analysis process?

Our experienced staff of transportation engineers, urban planners, transportation economists and environmental scientists addresses the diversity of

today's most critical freight transportation issues. As an example, we are leading the regulatory impact analysis of the U.S. Department of Transportation's (DOT) proposed new trucking Hours of Service rules – a project that involves a thorough knowledge of the trucking industry, economic impact analyses, highway safety, traffic engineering and environmental issues.

## Featured Projects

### Environmental and Energy Impacts of Freight Transportation

- Examined the environmental impacts and potential mitigation measures associated with the development of major NAFTA trade corridors through a detailed analysis of commodity flows, truck and rail traffic volumes, and emissions in five U.S.-Canada and U.S.-Mexico corridor segments. (North American Commission for Environmental Cooperation)
- Prepared the Environmental Assessment for the merger of the Burlington Northern and Santa Fe Railroads, analyzing increased traffic and other merger related activities along rail line segments and in rail yards and intermodal facilities and addressing critical issues such as potential impacts to air quality, noise, wetlands, floodplains, and cultural resources. (Surface Transportation Board)

## Featured Projects (continued)

- Providing analytic and strategic support to the U.S. EPA as it develops and launches a voluntary efficiency program for the freight industry, including the analysis of truck and rail efficiency options, conducting focus groups with major freight carriers, and developing a calculator tool that will allow participants to estimate energy and emissions reductions from a variety of technical and operational strategies. (U.S. Environmental Protection Agency)
- Developed a risk-based screening tool to assess the air toxic emissions produced by trucks at retail distribution centers and to cost-effectively evaluate the potential for exposure of nearby populations to cancer risk. (Multiple Private Clients)

### Trade and Freight Transportation Forecasting

- Developed 20-year forecasts of trade flows and the types and sizes of vessels that may carry trade through the Ports of New York and New Jersey under various channel capacity scenarios. (Ports of New York and New Jersey)
- Assessed the future potential and optimal privatization strategies for Panama's two major ports and the Panama railroad through preparation of a comprehensive global market forecast and engineering, labor and financial assessments for a variety of port and railway development strategies. (Government of Panama)

### Freight Transportation Terminal Planning

- Analyzed planning activities and environmental constraints that affect the development and expansion of intermodal freight transportation facilities, including such issues of concern as noise, air emissions, dredge spoils, environmental justice, and historical resources. (FHWA)
- Conducted comprehensive market base and air service route analyses to support the development of an airport marketing plan to attract passenger and cargo jet service. (City of Laredo, Texas)

- Analyzed the benefits and strategies for enhancing the Massachusetts Port Authority's rail freight access, particularly through double-stack rail clearance to and from seaports. (Massachusetts Port Authority)

### Economic Impacts of Freight Transportation

- Leading the regulatory impact analysis of proposed changes to the trucking Hours of Service rules, including a benefit-cost analysis that utilizes load-matching software to simulate trucking firms' responses to a rule change. (Federal Motor Carrier Safety Administration)
- Directing the development of a benefit-cost analysis model for freight transportation investments that accounts for the full economic consequences of freight improvements, including direct user cost savings related to travel time, crashes, and vehicle operation, and also indirect gains to shippers related to shorter transit times, increased reliability, and enhanced business productivity. (FHWA)

### Hazardous Materials and Transportation Safety

- Developed a tool to manage risk of hazardous materials transportation by highway, rail, waterborne vessel, and aircraft, and adapted the tool to enhance the security of hazardous materials transportation from terrorists by addressing security issues of personnel, processes, equipment, and facilities. (U.S.DOT)
- Developed guidance for emergency response at critical transportation infrastructures (e.g., bridges, tunnels) as well as high population areas and sensitive environments. (Private Railroad)
- Performed a commodity flow analysis of hazardous materials by highway, visited critical infrastructures (e.g., bridges) and sensitive environments (e.g., drinking water sources) to recommend emergency response and prevention counter-measures, and developed a National Emergency Response Plan. (International Client)

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## About ICF Consulting

ICF Consulting is a leading management, technology, and policy consulting firm. Drawing upon extensive industry knowledge, distinguished professionals, and innovative analytics, the firm develops solutions to complex energy, environment, emergency management, community development, and transportation issues. ICF Consulting's approach to these issues is strengthened by its expertise in information technology, organizational improvement, program management, and communications. Since 1969, ICF Consulting has been serving major corporations, government at all levels, and multinational institutions. More than 1,000 employees serve these clients from key business centers in North America, Europe, and Asia.

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