

# Building Freight Professional Capacity in the 21st Century



U.S. Department of Transportation  
Federal Highway Administration



**F R E I G H T**  
*Professional Development*

# Freight Professional Development Program Learning Opportunities

Efficient freight movement is a fundamental underpinning of our nation's economic strength. Enabling transportation professionals to improve their skills and knowledge to fully integrate freight movement into our transportation system's development and operations is the objective of the Federal Highway Administration's (FHWA's) Freight Professional Development (FPD) Program.

The FPD Program offers a broad range of professional capacity building opportunities including courses, workshops, seminars, and peer-to-peer exchanges. It provides access to information, resources, and tools that improve the understanding of how freight moves across our transportation network and how best to enable that movement while minimizing its impacts.

This brochure describes many of the options available in the FPD Program. Visit the FPD Web site at [www.ops.fhwa.dot.gov/freight/fpd](http://www.ops.fhwa.dot.gov/freight/fpd) and begin to take advantage of the opportunities the FPD Program provides.



## National Highway Institute (NHI) Training Courses

The FPD Program partners with the NHI to develop and deliver freight-related courses. Both instructor-led and Web-based training are available. Visit the NHI Web site at [www.nhi.fhwa.dot.gov](http://www.nhi.fhwa.dot.gov) for a complete list of course offerings and dates.

### Integrating Freight in the Transportation Planning Process

NHI-139006 (Web based)

This six-hour course provides information on freight transportation dynamics, identifies key stakeholders, and discusses issues that affect the integration of freight with the transportation planning process. Freight transportation issues can be complex and involve many different stakeholders, all of whom have different perspectives on the transportation system. A challenge faced by many public-sector transportation planners is how to best incorporate these freight perspectives into the transportation planning process in a way that results in a safe and efficient transportation system for both people and goods.

#### Target Audience

Transportation planners from State DOTs, MPOs, local governments, and Federal agencies.

#### Outcomes

After completion of this course, participants will be able to:

- Describe freight transportation dynamics and their effect on the transportation system and communities.
- Explain the role of various freight transportation modes.
- Identify freight transportation stakeholders.
- Identify ways to bring freight moves fully into the transportation planning process.
- Identify key resources that will help guide statewide and metropolitan freight planning efforts.

### Advanced Freight Planning

NHI-139003 (instructor led)

This two-day course expands on topics covered in **Integrating Freight in the Transportation Planning Process** and presents techniques and strategies for planning, programming, and implementing freight transportation projects and plans. It also highlights noteworthy examples to illustrate the range of freight-related projects. The course focuses heavily on resources, solutions, and the application of those solutions to develop plans and programs for both public- and private-sector agencies.

#### Target Audience

Transportation planners from State DOTs, MPOs, local jurisdictions, Federal agencies, and the private sector.

#### Outcomes

Upon the completion of the course, participants will be able to:

- Discuss freight transportation needs by major industry sector.
- Describe the role of the transportation system in supporting economic competitiveness.
- Identify the economic drivers that influence private-sector freight transportation decisions.
- Discuss how private-sector needs can inform public-sector performance measures.
- Describe methods for identifying and prioritizing freight projects
- Discuss the benefits of engaging private-sector stakeholders in project identification.
- List potential funding mechanisms for freight projects.
- Understand how best to integrate private-sector considerations into the transportation planning process.

#### Prerequisite

Participants must successfully complete **Integrating Freight in the Transportation Planning Process**.

### Uses of Multimodal Freight Forecasting in Transportation Planning

NHI-139002 (instructor led)

This three-day course provides an overview of freight forecasting and describes different forecasting techniques for meeting facility-specific, metropolitan, and statewide needs. The course addresses questions transportation planners commonly ask regarding freight planning, demonstrates the use and value of various forecasting techniques, and reviews notable practices and techniques used by MPOs and State DOTs.

Forecasting freight traffic is a complex task. It requires an understanding of many factors, including economic trends, the distribution of traffic, decisions made by freight shippers, and the operational characteristics of freight carriers. Freight forecasting uses different data sources and analytical tools than those used in forecasting passenger travel.

## Target Audience

Transportation planners and staff involved in forecasting from State DOTs, MPOs, local governments, Federal agencies, and port authorities.

## Outcomes

Upon completion of the course, participants will be able to:

- Discuss the key parameters that influence economic growth and the distribution of freight traffic.
- Identify publicly and privately available freight data sources and understand their strengths and limitations as they relate to freight forecasting and planning.
- Discuss freight's effects on travel demand forecasts.
- Discuss the roles of freight transportation modes, inter-modal terminals, and other facilities on local traffic.

## Linking Freight with Planning and the Environment

NHI-139005 (instructor led)

This two-day course teaches participants how to integrate freight-related and environmental considerations into project planning, programming, and development. The course is organized around the phases of transportation planning and programming, such as needs identification, plan development, project programming, project development, and project implementation. The course uses case studies and hands-on exercises to illustrate a range of options for integrating environmental considerations in each phase.

## Target Audience

Transportation, environmental, and freight planners and engineers from State DOTs, MPOs, local jurisdictions, Federal agencies, port authorities, and shippers, carriers, and other private sector stakeholders.

## Outcomes

Upon completion of the course, participants will be able to:

- List potential transportation improvement projects that balance freight mobility with community and environmental considerations.
- Identify strategies that balance statewide, regional, and metropolitan freight mobility needs with community and environmental goals.
- Incorporate freight-related and environmental considerations into transportation projects, programs, and policies.
- Locate available resources and tools to integrate freight-related and environmental considerations.

## Principles of Effective Commercial Vehicle Size and Weight Enforcement

NHI-139004 (instructor led)

This two-day course provides in-depth information on Federal commercial motor vehicle size and weight regulations, writing and evaluating State Enforcement Plans and Annual Certifications, and new and innovative enforcement technologies. It also discusses the importance of state-level enforcement programs in protecting the integrity of highway infrastructure and enhancing the safety of the roadway. The course highlights best practices and identifies skills and abilities needed to improve state enforcement programs.

## Target Audience

State DOT staff involved in commercial vehicle size and weight enforcement, MPO and city planners who deal with size and weight issues, law enforcement agency staff, trucking association officials, trucking company managers, and Federal agency staff.

## Outcomes

Upon completion of the course, participants will be able to:

- Discuss the history and background of Federal vehicle size and weight laws and enforcement program.
- Explain the relationship between vehicle size and weight and infrastructure damage.
- Describe the role of State and local officials in conducting and coordinating size and weight enforcement activities.
- Discuss current issues, trends, and technologies related to size and weight enforcement.
- Apply Federal size and weight laws.
- Prepare an effective State Enforcement Plan and Annual Certification.

## NHI Certificate of Accomplishment

NHI offers a **Certificate of Accomplishment in Freight Management and Operations** to recognize individuals who have completed and achieved a passing grade in freight-related courses. When bundled together, these complementary NHI courses enhance an individual's depth and breadth of knowledge and expertise in the area of freight transportation.

## Integrating Freight in the Transportation Planning Process (NHI-139006)

## Advanced Freight Planning (NHI-139003)

## Uses of Multimodal Freight Forecasting in Transportation Planning (NHI-139002)

## Linking Freight with Planning and the Environment (NHI-139005)

## Contacts for All NHI Courses

NHI, 703-235-0534, [nhitraining@dot.gov](mailto:nhitraining@dot.gov)

## FHWA Workshops (scheduled by request)

### Engaging the Private Sector in Freight Planning

This one-day workshop focuses on establishing and sustaining relationships with key private-sector stakeholders. It reviews strategies and techniques to initiate private-public sector cooperation, identifies key private-sector stakeholders, and suggests ways to improve and sustain communication. Successful approaches employed at several State DOTs and MPOs are discussed.

Private-sector stakeholders are a valuable resource in state-wide and metropolitan planning. Their involvement can help identify regional, statewide, and multijurisdictional challenges and inform transportation programming and investment decisions by local and state decision-makers.

#### Target Audience

Staff from State DOTs, MPOs, local jurisdictions, and economic development agencies.

#### Contact

FHWA Office of Freight Management and Operations,  
202-366-9210, [freightfeedback@dot.gov](mailto:freightfeedback@dot.gov)

### Financing Freight Improvements

This twelve-hour workshop provides information on funding and financing multimodal freight improvement projects. It also presents examples of successful freight project financing by state DOTs, MPOs, local agencies, and the private sector. The workshop uses the FHWA handbook, *Financing Freight Improvements*, as a teaching tool.

#### Target Audience

Transportation planners and finance staff from State DOTs, MPOs, cities and counties, economic development agencies, Federal agencies, port authorities, and the private sector.

#### Contact

FHWA, Office of Freight Management and Operations,  
202-366-9210, [freightfeedback@dot.gov](mailto:freightfeedback@dot.gov)

## Other Learning Opportunities

### Talking Freight Seminars

These monthly seminars provide a convenient and no-cost way for transportation professionals to learn about the latest trends, issues, tools, and noteworthy practices in freight transportation. Through the use of Web conferencing, participants can view the speaker's presentation on their personal computer and hear the audio portion of the presentation by dialing into the assigned teleconference number.

This format allows for extensive participation by freight stakeholders from across the country. Each seminar lasts 90 minutes, with 60 minutes allocated for presentations and 30 minutes for audience Q&As. Visit the Talking Freight Web site at [www.ops.fhwa.dot.gov/freight/fpd/talking\\_freight.htm](http://www.ops.fhwa.dot.gov/freight/fpd/talking_freight.htm) to register for a seminar, get details about upcoming topics, or listen to past seminars.

#### Contact

FHWA Office of Freight Management and Operations,  
202-366-9210, [freightfeedback@dot.gov](mailto:freightfeedback@dot.gov)

### Freight Transportation Industry Internship Program

This program helps public-sector transportation professionals gain a better understanding of issues facing local businesses and industries, opens up lines of communication, and builds relationships with the private sector. Through the program, participants work with their counterparts in several industries for one to two months. This experience enables participants to improve their knowledge of local freight transportation needs, challenges, and factors that influence private-sector decision making.

#### Contact

FHWA, Office of Freight Management and Operations,  
202-366-9210, [freightfeedback@dot.gov](mailto:freightfeedback@dot.gov)



## Other Learning Opportunities

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### Freight Peer-to-Peer (P2P) Program

Freight P2P facilitates information sharing between public-sector freight transportation professionals and provides customized technical assistance, on an as-needed basis, on a wide variety of freight issues related to planning and operations. P2P Web site visitors may request peer work sessions and roundtable discussions.

The peer work sessions are “roll-up-your-sleeves” workshops that offer State DOTs, MPOs, or individuals an opportunity to work with a technical expert one-on-one to develop specific skills or to address particular challenges. Peer roundtables are panel discussions composed of peers who promote and support innovative solutions to freight challenges and issues of regional and/or national interest rather than specific agency needs. Visit the P2P Program Web site at [www.ops.fhwa.dot.gov/freight/fpd/p2p](http://www.ops.fhwa.dot.gov/freight/fpd/p2p) for more information.

### Contact

FHWA, Office of Freight Management and Operations,  
1-866-727-3492, select option 4;  
[FreightPeerExchange@dot.gov](mailto:FreightPeerExchange@dot.gov)

### Freight Planning LISTSERV

The Freight Planning LISTSERV provides a venue for public- and private-sector freight transportation professionals to exchange information on innovative and best-case practices in freight planning in metropolitan areas and states. The LISTSERV has more than 700 subscribers from State DOTs, MPOs, professional associations, businesses, the academic community, and other organizations. Visit the Freight Planning LISTSERV at <http://listserv.utk.edu/archives/fhwafp.html>.

### Contact

FHWA, Office of Freight Management and Operations,  
202-366-9210, [FHWAFP@listserv.utk.edu](mailto:FHWAFP@listserv.utk.edu)

## Technical Assistance

### Highway Freight Logistics Reorganization Benefits Estimation Tool

FHWA's Estimation Tool enables transportation planners and others to more accurately measure the long-term benefits of proposed highway projects. Long-term benefits typically are associated with business reorganization that takes place because of improved transportation. These include serving a larger market area with existing distribution facilities or holding less inventory. Through the use of a spreadsheet model, users can input specific project information, such as estimated truck volumes and the characteristics of freight shipments, and the model will calculate the freight reorganization benefits associated with a highway improvement. The Tool is available at [www.ops.fhwa.dot.gov/freight/freight\\_analysis/econ\\_methods.htm](http://www.ops.fhwa.dot.gov/freight/freight_analysis/econ_methods.htm).

### National Transportation Library (NTL)

NTL provides online access to documents and databases that cover all aspects of transportation. These materials support transportation policy, research, operations, and technology transfer activities and decision making. Visit the NTL Web site at [www.ntl.bts.gov](http://www.ntl.bts.gov) for more information or to contact reference staff for assistance via “Ask-A-Librarian.”

### Freight Analysis Framework (FAF)

FAF estimates the tonnage and value of goods shipped by type of commodity and mode of transportation among states, regions, and international trade gateways. These data are available for 2002 (base year), with provisional estimates for last year and forecasts for 2010 and 2035. FAF is based primarily on Economic Census data that are collected every five years. Visit the FAF Web site at [www.ops.fhwa.dot.gov/freight/freight\\_analysis/faf](http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf) for more information.

### Quick Response Freight Manual II

The updated *Manual* provides background information on freight transportation, helps planners locate available data, and shows them how to apply this information to develop forecasts for specific facilities. The *Manual* also provides simple techniques and transferable parameters that can be used to create freight-vehicle trip tables. Visit [www.ops.fhwa.dot.gov/freight/publications/qrfm2/index.htm](http://www.ops.fhwa.dot.gov/freight/publications/qrfm2/index.htm) to view this resource.

## Eisenhower Freight and Transportation Logistics Scholarship

FHWA offers tuition assistance for transportation logistics courses and seminars at accredited U.S. institutions of higher education. The program objective is to improve knowledge and advance transportation professional capacity across all modes. Applicants must be employed by a state or local public-sector entity in the transportation field. Visit [www.fhwa.dot.gov/opd/universitygrants.htm](http://www.fhwa.dot.gov/opd/universitygrants.htm) for more information.

### Contact

FHWA, Office of Professional and Corporate Development,  
University Grants Program, 703-235-5000,  
[freightfeedback@dot.gov](mailto:freightfeedback@dot.gov)

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