

Fiscal Year 2007 Report Card for the National Highway Institute Training Team

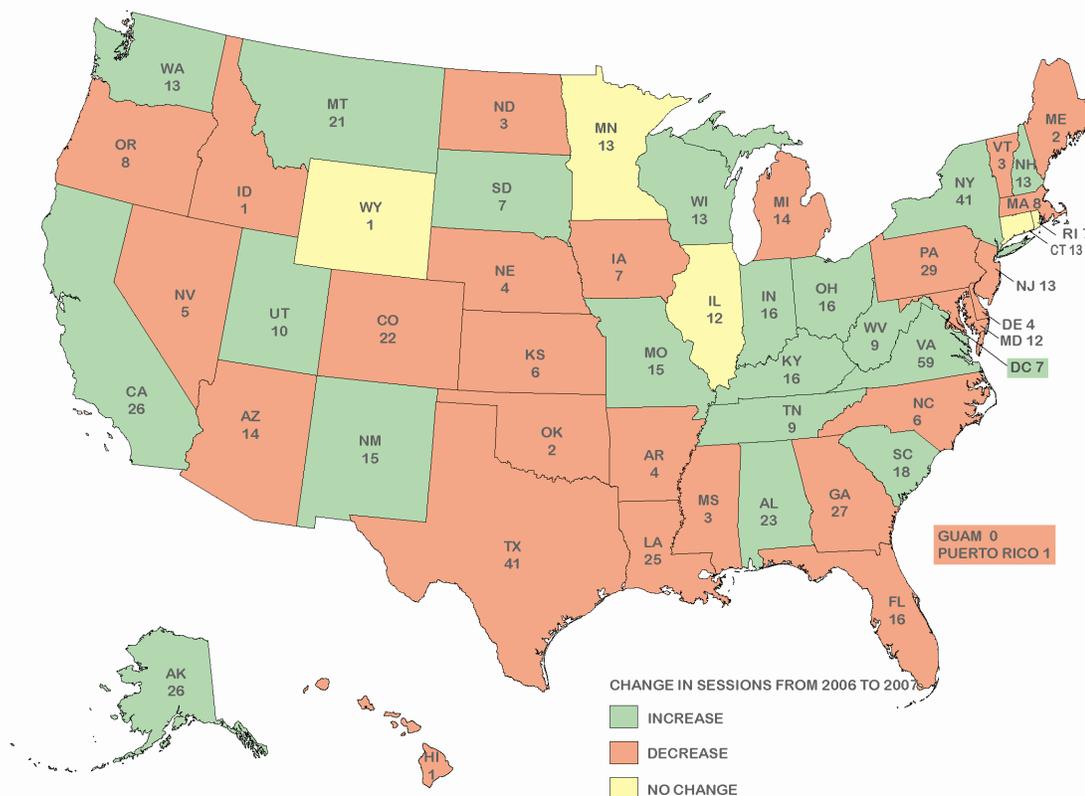
Starting in FY 2005, the National Highway Institute (NHI) began preparing an annual report card in response to requests from customers and constituents. We welcome your comment regarding this report.

NHI remains focused on customers and continuous improvement. The NHI Training Team continued to produce strong results in FY 2007. As the technical training arm of the FHWA, NHI develops and delivers high quality, skill enhancing training for the transportation workforce.

National Highway Institute (NHI) Grows through Innovation and Partnership

With combined expertise from within the transportation community, NHI developed 700 sessions presentations in all 50 States, Puerto Rico and Canada, and reached over 19,000 participants. See Figure 1.

Figure 1 – Sessions by State



What Do Customers Say About NHI Training?

“All of the material was new to me, so I learned something in each segment.”

“Information presented in this course will help me in my job.”

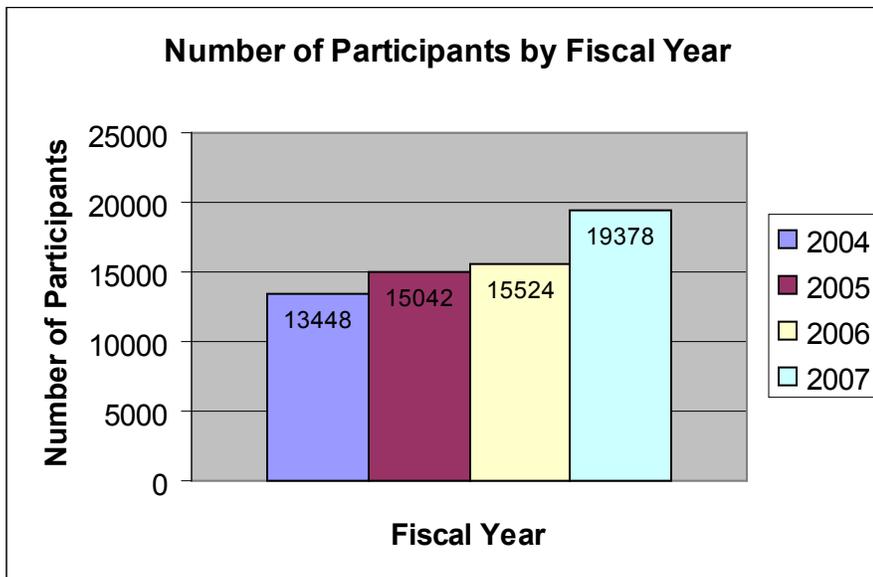
“[What I learned in this course] will greatly assist me in training additional personnel.”

“Everything was great. These instructors were detailed. Everyone needs to take this course.”

“Everyone is always nice and helpful.”

These excerpts from NHI training evaluations are just a few of the thousands of positive comments we’ve received from participants and hosts in the last year. As a testament to our customers’ satisfaction with NHI training, our reach to customers has grown by an astounding 23% in the past year, including 75% from the State departments of transportation and 11% from the private sector.

Figure 2 – Participants by Fiscal Year



That growth stems from three primary drivers: (1) long-standing customer satisfaction, (2) the development of training in partnership with transportation constituents, (3) use of distance-learning.

NHI Program Improvements

NHI is excited and pleased to have accomplished numerous program improvements and strategic goals that we believe will help us serve our customers better. In fiscal year 2007, NHI:

- Launched the Web-based and Web-conference training program. So far we have received over 3000 session hits.
- Implemented the electronic bookstore which allows NHI Web site users to download and store electronic versions of NHI materials.
- Updated and improved our Web site. User can now benefit from online registration, an online version of the NHI Training Catalog, an e-commerce module and online resources for Instructors and course developers.
- Added the ‘Public Seats’ feature to the Web site. This feature indicates that participants can enroll and pay for their seat online.
- Developed *NHI Real Solutions*, a collection of articles that highlight real-world applications of NHI Training.

New and Updated Course Launches

In fiscal year 2007 NHI developed 13 new and updated courses in Safety, Infrastructure, Operations/ITS and Planning, Environment and Realty.

New Courses	
131110	Pavement Preservation Treatment Construction WBT
134065	Risk Management
141048	Outdoor Advertising Control: Bonus States
141049	Outdoor Advertising Control: Non-Bonus States
142051	Highway Traffic Noise
New Seminars	
135085	Plan of Action (POA) for Scour Critical Bridges
141047	Local Public Agency Real Estate Acquisition
151044	Traffic Monitoring and Pavement Design Programs
151045	Highway Performance Monitoring Systems: An Introduction
Updated Courses	
133078	Access Management, Location, and Design
141045	Real Estate Acquisition Under the Uniform Act: An Overview
380072	Advanced Work Zone Management and Design
380079	AASHTO Roadside Design Guide

Customer Satisfaction

Throughout its 37-year history, NHI helped customers improve their transportation systems at the State and local levels through training. NHI is proud to report that in fiscal year 2007, we averaged 4.33 on a 5-point scale for training satisfaction and a 4.48 on a 5-point scale for instructor satisfaction. Hosts rated NHI service at 4.53 on a 5-point scale. NHI determines satisfaction ratings based on an average of scores given on various evaluation forms



Above: The NHI Training team supports the transportation community. Right insert: Rick Barnaby, NHI Training Team Leader

NHI exemplifies the FHWA value of *public service*: “We are committed to the pursuit of professional excellence motivated by serving the public interest and providing high quality products and timely services.” That is why we ask customers what we did well – and what we need to improve – every time we deliver training. Whether the feedback comes to NHI from our scannable training evaluation forms, from our online host surveys, or through other channels, NHI personnel review the comments and respond with improvements to our service and programs.

Customer feedback tells us that participants gain more from training based on instructional systems design principles. That is why NHI builds adult-learning principles into its training; by taking this approach we can ensure that training is job-relevant, engaging to participants, and builds upon the knowledge and skills that adults bring to the training.

Customer feedback also tells us that our instructors drive training success. Think back to the last time you attended training. Whether you benefited from the course was likely

dependent upon the instructor and how effectively he or she delivered the material. NHI recognizes that its 500-plus instructors are crucial to the success of training. As a result, we require instructor certification, host quarterly Web conferences with our instructors, and seek the input of an Instructor Advisory Council to help ensure the quality of instruction in all NHI courses.



Above: Participants in a session of the NHI Bicycle Facility Design course in Frankfort, KY, are working on group designs. Photo Credit: Theo Petritsch, Senior Transportation Engineer, Sprinkle Consulting

Special Recognition for Excellence

Based upon customer feedback, NHI is proud to recognize the highest rated courses and instructors. See Table 1 for NHI Courses of Excellence.

Table 1 – Courses of Excellence

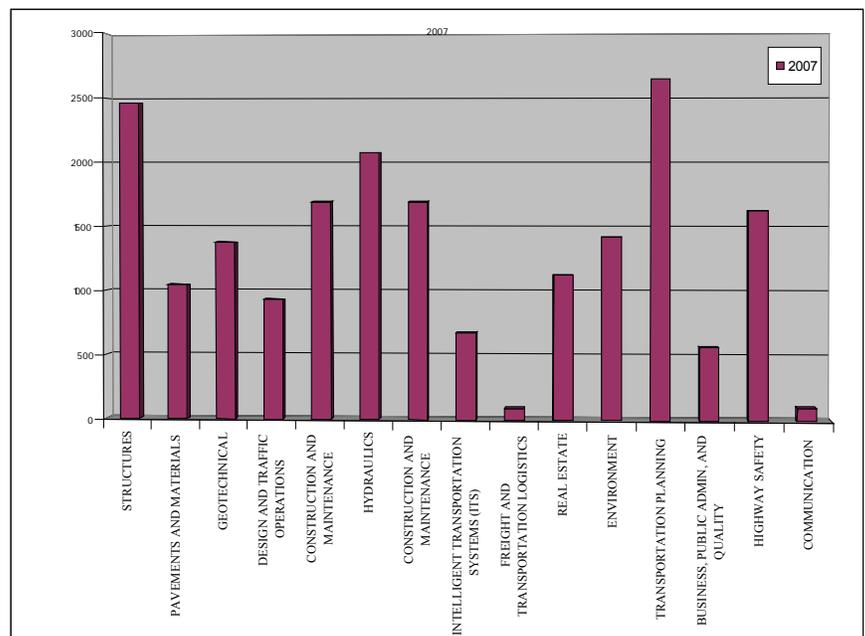
Course Number	Course Title	Average
134060	Partnering: A Key Tool for Improving the Project Delivery in the Field	4.7
141029	Basic Relocation under the Uniform Act	4.7
141030	Advanced Relocation under the Uniform Act	4.6
141031	Business Relocation under the Uniform Act	4.6
142045	Pedestrian Facility Design	4.6
142051	Highway Traffic Noise	4.6
380069	Road Safety Audits and Road Safety Audit Reviews	4.6
420018A	Instructor Development Course (4.5-Day)	4.6
130054	Engineering Concepts for Bridge Inspectors	4.5
130079	Bridge Coatings Inspection	4.5

130081D	LRFD for Highway Bridge Superstructures – Steel and Concrete (4.5-Day)	4.5
132013	Geosynthetics Engineering Workshop (1-Day)	4.5
132014	Drilled Shafts	4.5
132070	Drilled Shaft Foundation Inspection	4.5
134056	Pontis Bridge Management	4.5
135010	River Engineering for Highway Encroachments	4.5
135041A	HEC-RAS, River Analysis System (3.5-Day)	4.5
135081	Introduction to Highway Hydraulics Software	4.5
137022	CORSIM Traffic Simulation Model Training	4.5
142049	Beyond Compliance: Historic Preservation in Transportation Project Development	4.5
142052	Introduction to NEPA and Transportation Decisionmaking – WEB-BASED	4.5
152073	TRANSIMS 101	4.5
420018	Instructor Development Course (3.5-Day)	4.5
420046	Developing High-Impact Training	4.5

Innovation and Partnerships in Training

Beyond our partnerships with the private sector, states and local communities for training delivery, NHI includes input from many constituents in training development. Growing from a traditional base of structures and pavement courses, NHI now offers high-quality training that addresses planning, environment, real estate, asset management, safety and operations topics.

Figure 3 (Right) – Attendance by Category Chart



NHI’s inclusive approach to course development was exemplified in the new Highway Traffic Noise (FHWA-NHI-142051) training. Shaped by a technical panel that included environmental specialists at State departments of transportation, the chair of the Transportation Research Board’s Committee on Transportation-Related Noise and Vibration, and FHWA noise specialists, the course is an introductory, yet comprehensive, overview of highway traffic noise. NHI commissioned a customized version of the Interactive Sound Information System (ISIS) as a part of the course design. ISIS is a noise simulation software program that employs high-quality digital recordings, precise sound control, and graphic imagery to present noise for various traffic loads, and demonstrates the noise-reducing impacts of various barriers.

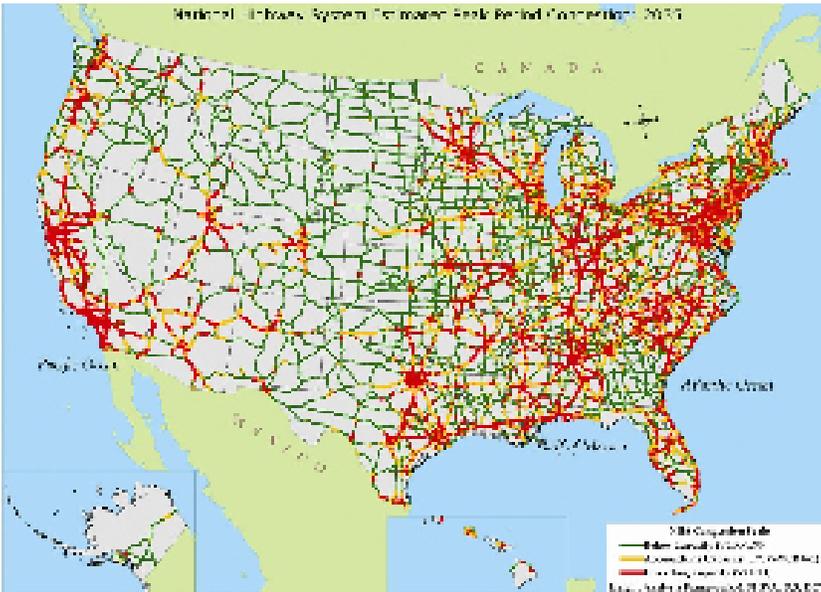


Above: A noise barrier is under construction along Route 30 in Lancaster County, Pennsylvania. The barrier will mitigate both construction noise and subsequent traffic noise.” Photo Credit: Mark Ferroni, FHWA

According to FHWA Noise Team Leader Mark Ferroni, “ISIS is a unique tool that enables course participants – and ultimately communities and decisionmakers – to experience first-hand the effects of noise and assorted countermeasures, giving them valuable information to guide the choices they make about projects.”

The noise course is just one example of NHI courses that incorporate technology to help improve the transportation system. NHI also partnered with FHWA’s Office of Freight Management and Operations to incorporate applications of the Freight Analysis Framework (FAF) into its existing and new courses. The FAF is a tool that provides a comprehensive picture of commodity flows in the United States. The framework covers local and long-distance shipments as well as imports and exports of all commodities by all modes of transportation. “The FAF indicates the volumes and value of what moves into, out of, and through an area,” says Rolf Schmitt, team leader of FHWA’s Freight Analysis Team, and “helps course participants, stakeholders, and State and regional planners understand the national and international context of their domains.”

For a complete list of new and updated courses, visit the NHI Web site (www.nhi.fhwa.dot.gov). NHI launched 26 new courses, six new seminars, a new executive summary and 11 updated courses in 2007.



Above: According to preliminary analysis of FAF, in 2002 approximately 11 percent of the NHS roadways approached or exceeded their capacity. In 2035, approximately 40 percent of the NHS roadways will exceed capacity.”

Site Visits and Conferences

NHI recognizes the importance in meeting our constituents face-to-face to hear their feedback and suggestions for supporting and improving NHI training. In FY 2007 members of the NHI Training Team were able to attend and exhibit their booth at several conferences across the nation. NHI participated in:

- TRB Annual Meeting in Washington, D.C.
- International Symposium and NTTD Conference in St. Petersburg, FL
- NARC Annual Conference and Exhibition in Orlando, FL
- ITE Annual Meeting and Exhibit in Pittsburgh, PA
- APWA International Public Works Congress and Exposition in San Antonio, Texas.
 - AMPO Annual Conference in Little Rock, AR

In addition to conferences, NHI was able to conduct several site visits to meet with FHWA Division office and State DOT training officers in Iowa, Tennessee, South Carolina, California, and Texas. NHI appreciates the feedback about the program improvements implemented and the suggestions for continuous improvements.

In addition to the site visits conducted, NHI conducted telephone interviews with representatives from the transportation community to be sure that our NHI Web site is meeting the needs of our constituents. We appreciate the feedback offered by the following individuals –

- David Dubov (AASHTO Technology and Communications contact)
- Mark Doctor (Resource Center member and Instructor)
- Julie Rodriguez (NTTD member and Transportation Learning Center Director)
- Mary Sharp (Pennsylvania DOT training coordinator and NHI host)
- Marilyn Dell (Texas DOT technical training coordinator and NHI host)
- Sandra Lupe (New York DOT technical training coordinator and NHI host)
- Jennifer Lanning (participant – Sr. Engineer Pennoni Associates in Delaware)
- Frank Lasch (participant – Owner EXND Diving & Marine Services in Florida)
- Danielle Stewart (participant – Illinois Department of Transportation)
- Carol Myers (instructor/contractor – O.R.Colan/PENN DOT)
- Louise Smart (instructor/contractor – CDR Associates)
- Susan Walker (instructor/contractor – Iteris)

Use of Distance Learning

Internet-based technologies continue to offer new and affordable opportunities to connect people, across town, across the country, and around the world. NHI continues to modernize to deliver world-class training to the transportation community. Among the latest developments at NHI are Web-based training (WBT) and Web-conference training (WCT), which enable participants to train without leaving their offices.

In fiscal year 2007, NHI launched 12 new and 3 updated Web offerings. Among these new offerings is Plan of Action (POA) for Scour Critical Bridges (FHWA-NHI-135085). This online seminar provides guidance on developing a Plan of Action (POA) for scour critical bridges. The seminar highlights the history of the POA requirement and recommends

management and inspection strategies for POA development.



Above: Images of a NHI Web-based Training course

NHI also launched its first Web-based executive summary for Principles and Tools for Road Weather Management (FHWA-NHI-137030). The Web-based product provides a high-level summary of the course so that decisionmakers can review the content before making a decision to purchase and host the instructor-led training. For a complete listing of Web training available through NHI, visit our Web site (www.nhi.fhwa.dot.gov).

One of our new Web-conference training offerings Principles and Practices for Enhanced Maintenance Management Systems (FHWA-NHI-131112), afforded NHI the opportunity to do a comparison of customer satisfaction and knowledge retention between classroom training and online learning. Final assessment scores and course evaluation forms from the WCT version (FHWA-NHI-131112) and the classroom version (FHWA-NHI-131107) were compared. Results showed that participants were equally satisfied with the course and retained equal amounts of knowledge. The difference – NHI was

able to reduce its costs by nearly 67%. Based upon the lessons learned from this effort, NHI continues to look for opportunities to introduce Web-conference training to the transportation community.

Another Web-conference training being developed is as an effort to get just-in-time (JIT) information out to the field quickly. Pavement Preservation: Optimal Timing of Pavement Preservation Treatments (FHWA-NHI-131114), a four-hour seminar, explores some of the work performed under NCHRP Project 14-14. It also includes the OPTime tool that was developed as part of that project to help agencies determine the optimal time to apply a treatment. Topics in the seminar range from defining goals, identifying characteristics of good pavement preservation programs, collecting treatment performance relationship data, and identifying key cost and benefit considerations. Taught online in a virtual classroom, the course is taught by a lead author of the report and includes access to the NCHRP 523 report.

NHI also partnered with Julie Rodriguez of the director of the Transportation Learning Network to offer Video tele-training. The Workzone Traffic Control for Maintenance Operations (FHWA-NHI-380060) course was modified and held via video conferencing technology. Over 140 participants in South Dakota, Wyoming, North Dakota, Montana, and Idaho attended the virtual session.

“We are so out of the norm for NHI and they came through wonderfully. The effort by the instructor, the NHI staff, and the course materials folks were outstanding. I think it was a truly successful session and I hope to do more,” said Julie Rodriguez.

NHI utilized this session as a pilot effort and based upon the lessons learned hopes to make more training available via this method.

NHI Training Team in the News

More about NHI training, program improvements and 2007 accomplishments can be found at the NHI Web site (<http://www.nhi.fhwa.dot.gov/about/NHINews.aspx>). Visit the IN THE NEWS section of the Web site to view the NHI quarterly e-newsletter *Learning in Progress* and other published articles about NHI training solutions.