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NATIONAL HIGHWAY INSTITUTE
YEAR END REPORT
FISCAL YEAR 2009



INNOVATIVE NEW TRAINING, INCREASED PARTICIPATION RECORD NUMBER OF PARTICIPANTS

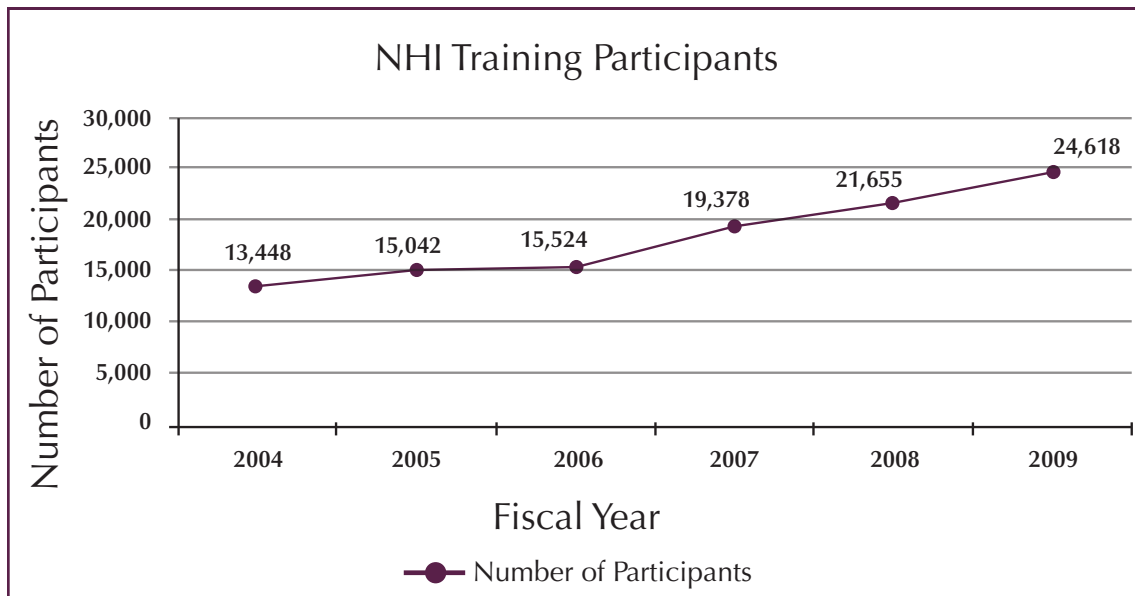
The National Highway Institute (NHI) develops innovative transportation training that provides new information about materials, processes, and technology, and practical solutions to problems faced in the field. In fiscal year (FY) 2009, NHI held 635 Instructor-led and distance learning training sessions across the Nation, in addition to asynchronous Web-based training. NHI developed new courses in a wide variety of subject areas—from guardrail installation to effective



NHI Instructor-led training reached transportation professionals in each State in FY 2009.

communications in public involvement. NHI's growth directly stems from the input provided by training participants. Specifically, participants requested new and updated Instructor-led training sessions, more distance learning options, and better customer service. In response, NHI launched more new and updated trainings in FY 2009 than any other year. Of the 48 new and updated trainings launched, more than 20 were Web-based and/or Web-conference trainings (for a complete list, see Appendix A).

Since 2006, NHI has seen the number of participants in its courses increase by 63 percent. By enhancing its offerings in FY 2009, NHI saw a record number of participants—more than 24,600! NHI provided Instructor-led training to more than 14,000 participants, 6,300 Web-based participants, and more than 450 Web-conference participants.



EXPANDING REACH THROUGH SOCIAL MEDIA

Are you a “friend” of NHI? Because the transportation community and many training participants are engaged with social networking sites, NHI launched a Facebook page this year. The page includes updates on Web conferences, new trainings, and other conferences and information.

Likewise, NHI’s Learning Forum provides transportation professionals the opportunity to discuss transportation issues online. The forum is another outlet for transportation professionals to provide and receive feedback on issues they may be experiencing or courses they would like NHI to develop.

NHI also has a LinkedIn page, which serves as a resource to connect transportation professionals of diverse backgrounds. NHI posts news updates here, too.

INSTRUCTOR AND COURSE EVALUATIONS

NHI values participant feedback. In fact, each course participant is asked about various aspects of the training, including content, delivery, instructors, materials, and other details. On a five-point scale, NHI courses averaged 4.55 for instructor satisfaction and remained at 4.39 for customer satisfaction.

NHI recognizes the highest-rated courses—those that receive an overall score of at least 4.5 out of 5—as Courses of Excellence. This year NHI had a record 64 Courses of Excellence. (For a complete list, see Appendix B.)

Here's What NHI Customers Are Saying:

“This training provided me with a better understanding of the transportation planning process.”

—Linking Freight to Planning and the Environment: 139005

“I truly enjoy benefiting from these Web-based courses. I believe the program is excellent and NHI should keep it going.”

—TCCC Incompatibility in Concrete Pavement Systems: 134085

“Excellent content, good speakers, and the training was delivered well.”

—Design of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes: 132042

NHI AND THE TRANSPORTATION CURRICULUM COORDINATION COUNCIL (TCCC) PROVIDE DISTANCE LEARNING TRAINING OPTIONS TO STATES WITH LIMITED ACCESS

Since the inception of the NHI/TCCC training partnership in July 2008, the collaboration launched more than 20 Web-based trainings. At the end of FY 2009, more than 4,642 participants had benefited from its reach. In addition, the trainings are now available to States that have Internet restrictions or Learning Management System (LMS) needs, which has benefited another 5,574 participants. That's a total of more than 10,215 participants!

The goal of the NHI/TCCC trainings is to build relationships with as many States as possible. With this in mind, NHI/TCCC developed a sharing program that provides the published trainings for internal State LMSs, State intranets, and other State training needs. The collaboration identified several States, such as Alabama, Iowa, Minnesota, South Carolina, and Texas that have LMS training requirements, technology limitations, or Internet restrictions that keep their participants from reaching the NHI Web site. Distributing the trainings directly to the States guarantees that potential participants within those States can access training and information otherwise not available to them. In return, States agree to report quarterly participation numbers and use the most up-to-date versions of trainings.

Currently, Alabama, Iowa, Minnesota, South Carolina, and Texas have access to training through the sharing program and are seeing encouraging participation numbers. After mandating supervisor training, Minnesota saw increased participation with 567 participants in the Math Module (FHWA-NHI-134072) training. Alabama had 4,619 Statewide participants in their required Ethics Awareness for the Transportation Industry (FHWA-NHI-134069) training. The sharing program hopes to further increase these numbers by developing new trainings and promoting the existing trainings to additional States.

REAL SOLUTIONS AND NHI INNOVATIONS

The free Web conference series, *Real Solutions* and *NHI Innovations*, reached more than 3,500 participants in FY 2009. These seminars feature guest speakers presenting problems or issues they have faced in the field and what steps they took to address the issues. Throughout the year, NHI held 12 *Real Solutions* seminars and 9 *NHI Innovations* seminars. Recordings of these seminars are available on the Web site.

Overall, the seminars reached record participation rates. Of note, the May 2009 *Real Solutions* seminar, *Integrating Bicycle and Pedestrian Facilities in Constrained ROWs*, presented by Bruce Landis, P.E., AICP, set an attendance record with approximately 840 participants.

LEAN SIX SIGMA TRAINING AT NHI

By the end of FY 2009, 45 members of the NHI team participated in Lean Six Sigma training. Lean Six Sigma is a business management strategy that improves the quality of everyday business processes by eliminating waste and variability.

Levels of training are indicated by the “belt” system, borrowed from martial arts. In May, some staff members received white belts, the most basic training, and some team members received yellow belts, one level more advanced. In August, six team members received green belt training, an advanced certification. The NHI team is excited to put these new skills to use to deliver training of the highest possible quality.

CONFERENCES

NHI appreciates the value of meeting constituents face-to-face to hear their suggestions for supporting and improving NHI training. In FY 2009, NHI participated in the following conferences:

- American Public Works Association International Public Works Congress and Exposition in Columbus, OH
- Institute of Transportation Engineers Annual Meeting and Exhibit in San Antonio, TX
- Transportation Research Board Annual Meeting in Washington, DC
- TCCC Annual Meeting in Arlington, VA
- Multi-regional Training and Certification Annual Meeting in Fargo, ND

APPENDIX A: NEW AND UPDATED COURSES FY 2009

Course	Number	Type
Advanced Seminar on Transportation Project Development: Navigating the NEPA Maze	142055	ILT
Application of Crash Reduction Factors (CRF)	380093	Blended
Bridge Inspection Non Destructive Testing Showcase (BINS)	130099	ILT
Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes	132043	ILT
Construction Program Management and Inspection	134061	ILT
Design of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes	132042	ILT
Designing for Pedestrian Safety	380089	ILT
Developing a Pedestrian Safety Action Plan	380090	ILT
Effective Communications in Public Involvement	142059	Blended
FHWA Role in Public Private Partnerships	310116	ILT
Fundamentals of Life Cycle Cost Analysis	131113	WCT/WBT
Fundamentals of LRFR and Applications of LRFR for Bridge Superstructures	130092	ILT
Guardrail Installation Training	380085	ILT
High Occupancy Vehicle (HOV) Facilities (3-Day)	133072	ILT
Highway Slope Maintenance and Slide Restoration	132081	ILT
Improving Safety of Horizontal Curves	380088	ILT
ITS/CVO Security Awareness	137033	ILT
ITS Deployment Analysis System (IDAS)	137046	WBT
Leap Not Creep: Accelerating Innovation Implementation	134073	Blended
Linking Freight to Planning and the Environment	139005	ILT
Low-Cost Safety Improvements	380083	Blended
LRFD and Analysis of Curved Steel Highway Bridges	130095	ILT
LRFD Seismic Analysis and Design of Bridges	130093	ILT
Managing Road Impacts on Stream Ecosystems: An Interdisciplinary Approach	142048	ILT
Planning and Designing for Pedestrian Safety	380091	ILT
Practical Conflict Management Skills for Environmental Issues	142060	ILT
Principles of Effective Commercial Motor Vehicle (CMV) Size and Weight Enforcement	139004	ILT
Road Safety Audits/Assessments	380069	ILT
Science of Crash Reduction Factors	380094	Blended
Scour at Highway Bridges: Concepts and Definitions (Prerequisite)	135087	WBT
SPECRISK Quality Assurance Specification Development and Validation	134070	WBT
Stream Stability Factors and Concepts (Prerequisite)	135086	WBT
TCCC Basics of Cement Hydration	134096	WBT
TCCC Concrete Pavement Preservation Series	131126	WBT
TCCC Concrete Series	131127	WBT
TCCC Construction of Concrete Pavements	134098	WBT
TCCC Construction of Portland Cement Concrete Pavements	131121	WBT

*Note that the following abbreviations were used in the chart above: Instructor-led training (ILT), Web-based training (WBT), and Web-conference training (WCT).

APPENDIX A: NEW AND UPDATED COURSES FY 2009 (CONT.)

Course	Number	Type
TCCC Design of Pavement	134101	WBT
TCCC Early Age Cracking	134095	WBT
TCCC Fresh Properties	134097	WBT
TCCC Fundamentals of Materials Used for Concrete Pavements	134084	WBT
TCCC Incompatibility in Concrete Pavement Systems	134085	WBT
TCCC Mix Design Principles	134087	WBT
TCCC Portland Cement Concrete Paving Inspection	131122	WBT
TCCC Plan Reading	134081	WBT
TCCC QCQA for Concrete Pavements	134100	WBT
TCCC Troubleshooting for Concrete Pavements	134102	WBT
Using the Incident Command System at Highway Incidents	133101	ILT

*Note that the following abbreviations were used in the chart above: Instructor-led training (ILT), Web-based training (WBT), and Web-conference training (WCT).

APPENDIX B: NHI COURSES OF EXCELLENCE FY 2009

Course	Title	Average
420018A	Instructor Development Course (4.5-Day)	4.94
152071	Estimating Regional Mobile Source Emissions	4.87
141031	Business Relocation Under the Uniform Act	4.86
131109	Analysis of New and Rehabilitated Pavement with M-E Design Guide Software	4.78
134029	Bridge Maintenance Training	4.78
142060	Practical Conflict Management Skills for Environmental Issues	4.76
135067	Practical Highway Hydrology	4.74
141030	Advanced Relocation Under the Uniform Act	4.73
380069	Road Safety Audits/Assessments	4.73
142046	Bicycle Facility Design	4.71
420018	Instructor Development Course (3.5-Day)	4.69
135041	HEC-RAS, River Analysis System (3-Day)	4.69
380034B	Design, Construction, and Maintenance of Highway Safety Appurtenances and Features (3-Day)	4.68
131100	Pavement Smoothness: Use of Inertial Profiler Measurements for Construction Quality Control	4.66
130088	Bridge Construction Inspection	4.66
142045	Pedestrian Facility Design	4.66
132043	Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes	4.65
135041A	HEC-RAS, River Analysis System (3.5-Day)	4.65
135046	Stream Stability and Scour at Highway Bridges	4.65
141029	Basic Relocation Under the Uniform Act	4.65
142036	Public Involvement in the Transportation Decisionmaking Process	4.64
132036	Earth Retaining Structures	4.64
152054	Introduction to Urban Travel Demand Forecasting	4.63
131026	Pavement Subsurface Drainage Design	4.63

APPENDIX B: NHI COURSES OF EXCELLENCE FY 2009 (CONT.)

Course	Title	Average
135048	Countermeasure Design for Bridge Scour and Stream Instability (2.5-Day)	4.62
130091	Underwater Bridge Inspection	4.62
132070	Drilled Shaft Foundation Inspection	4.62
132013	Geosynthetics Engineering Workshop (1-Day)	4.62
130055	Safety Inspection of In-Service Bridges	4.61
142054	Design and Implementation of Erosion and Sediment Control	4.61
380003A	Design and Operation of Work Zone Traffic Control (3-Day)	4.61
132012	Soils and Foundations Workshop	4.61
380073	Fundamentals of Planning, Design, and Approval of Interchange Improvements to the Interstate System	4.60
142047	Water Quality Management of Highway Runoff	4.60
132013A	Geosynthetics Engineering Workshop (3-Day)	4.60
310111	Conducting Effective Program Reviews	4.59
310108	Federal Lands 101	4.59
131104	Pavement Preservation: Integrating Pavement Preservation Practices and Pavement Management	4.58
130093	LRFD Seismic Analysis and Design of Bridges	4.57
132078	Micropile Design and Construction	4.57
380075	New Approaches to Highway Safety Analysis	4.56
152072A	Highway Program Financing - Executive Session	4.56
135082	Highways in the Coastal Environment	4.56
134042A	Materials Control and Acceptance - Quality Assurance (2-Day)	4.56
310109A	Federal-Aid 101, Highway Program Financing and Contract Administration	4.55
131023A	Materials Control & Acceptance Quality Assurance	4.55
135065	Introduction to Highway Hydraulics	4.55
380078	Signalized Intersection Guidebook Workshop	4.54
134068	Addressing Uncertainty in Cost Estimating	4.54
130053	Bridge Inspection Refresher Training	4.54
132079	Subsurface Investigation Qualification	4.54
380060	Work Zone Traffic Control for Maintenance Operations (Short Term)	4.54
135027A	Urban Drainage Design (4-Day)	4.53
134060	Partnering: A Key Tool for Improving Project Delivery in the Field	4.53
133028	Traffic Signal Design and Operation	4.52
380074	Designing and Operating Intersections for Safety	4.52
130081	LRFD for Highway Bridge Superstructures - Concrete (2-Day)	4.52
380034A	Design, Construction, and Maintenance of Highway Safety Appurtenances and Features (2-Day)	4.51
151018	Application of the FHWA Traffic Monitoring Guide	4.50
380087	Safety Workshop	4.50
130087	Inspection and Maintenance of Ancillary Highway Structures	4.50
132035	Rock Slopes	4.50
380003	Design and Operation of Work Zone Traffic Control (1-Day)	4.50
142049	Beyond Compliance: Historic Preservation in Transportation Project Development	4.50