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# NATIONAL HIGHWAY INSTITUTE ANNUAL REPORT FISCAL YEAR 2012

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## THE NATIONAL HIGHWAY INSTITUTE

### Every Day Counts 2: Time-Saving Approaches to Enhance the Nation's Highways

The U.S. highway system is a key component of economic growth, and with increased demands on the system, additional investments are needed to facilitate its development.

Every Day Counts 2 (EDC2), the second phase of the Federal Highway Administration's (FHWA) Every Day Counts (EDC) initiative, is an effort to make projects more time- and cost-efficient by using new processes and technologies to complete highway projects quickly and with less revenue. FHWA endorses 13 initiatives that span many aspects of highway solutions, including time-saving programmatic agreements and use of the construction manager-general contractor project delivery method.

On July 6, 2012, President Obama signed the Moving Ahead for Progress in the 21st Century (MAP-21) Act into law—the first long-term highway agreement passed since 2005. Over the course of Fiscal Years (FY) 2013 and 2014, MAP-21 will funnel more than \$105 billion into highway surface transportation programs.

The EDC and EDC2 initiatives and legislation like MAP-21 provide guidance for the advancement of highways nationwide.

Since MAP-21 endorses many ideas promoted by EDC2, training on innovations has become imperative. As industry landscapes change to accommodate recent legislation and initiatives, the National Highway Institute (NHI) will continue to tailor training efforts to the needs of industry professionals.

In response to these initiatives, NHI offers a variety of courses that support EDC2 goals, including:

- 134073 Leap Not Creep: Accelerating Innovation Implementation
- 134058 Alternative Contracting
- 141029 Basic Relocation under the Uniform Act
- 141030 Advanced Relocation under the Uniform Act
- 141031 Business Relocation under the Uniform Act
- 141050 Introduction to Federal-Aid Right of Way Requirements for Local Public Agencies
- 142005 NEPA and Transportation Decisionmaking
- 142036 Public Involvement in the Transportation Decisionmaking Process
- 142049 Beyond Compliance: Historic Preservation in Transportation Project Development
- 142051 Highway Traffic Noise
- 142055 Advanced Seminar on Transportation Project Development: Navigating the NEPA Maze
- 142060 Practical Conflict Management Skills for Environmental Issues



During course development, NHI assesses the needs of the community to create training that supports our Nation's goals and initiatives. With more resources and new plans to develop highways, NHI is committed to creating courses to meet the needs of the modern transportation professional.

## About NHI

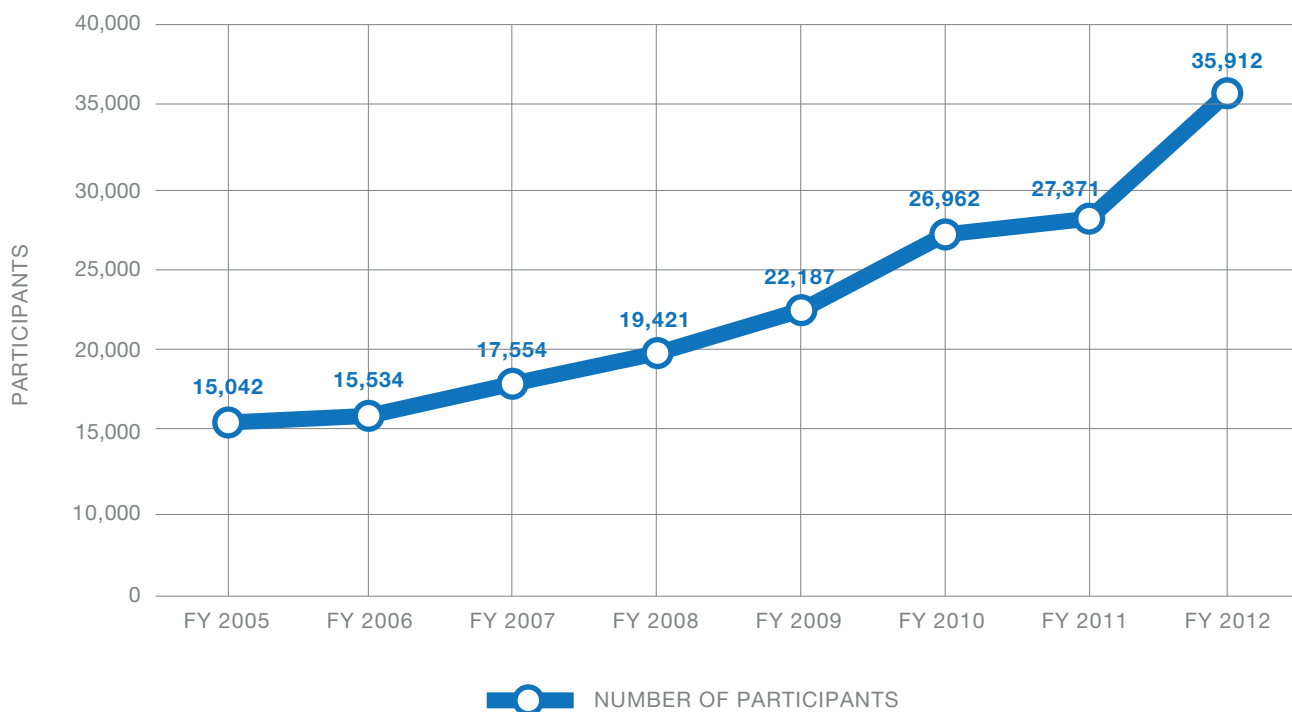
NHI is the training and education arm of FHWA. NHI's team of talented Federal and contract employees is housed within FHWA's Office of Technical Services. NHI provides leadership and resources to guide the development and delivery of transportation-related training in many formats, including both classroom-based and distance learning. NHI is authorized to award continuing education units through the International Association of Continuing Education and Training.

## COURSE DELIVERY PERFORMANCE

### Overall Participation in NHI Courses

Participation in NHI's courses rose dramatically in FY 2012; notably, this growth was fueled by a significant rise in Web-based training registrations. Instructor-led training sessions held decreased by 14 percent to a total of 519, while there was an 88 percent increase in Web-based training registrations from FY 2011.

#### NHI TRAINING PARTICIPATION: FISCAL YEARS 2005–2012



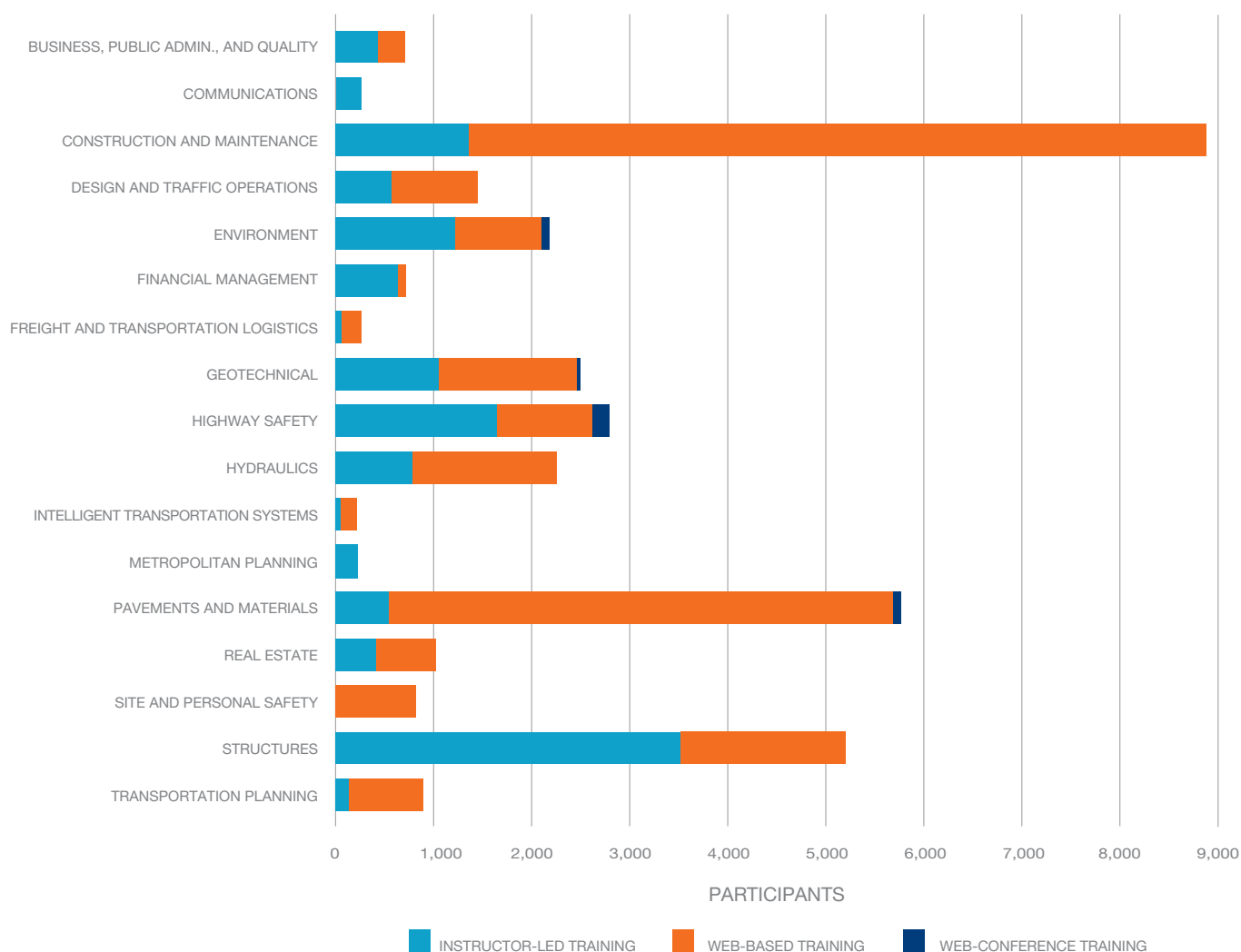
Total participation in NHI trainings varied by delivery type in FY 2012:

- 12,967 participants attended an Instructor-led training (ILT).
- 22,650 participants registered for a Web-based training (WBT).
- 294 participants attended a Web-conference training (WCT).

In FY 2012, the content of NHI's courses spanned across 17 program areas and varied in delivery type. The most popular courses were as follows:

- The **Structures** program area obtained the highest level of **ILT** enrollment with 3,538 students.
- The **Construction and Maintenance** program area saw the highest level of **WBT** enrollment with 7,511 registrations.
- The **Highway Safety** program area had 154 confirmed **WCT** participants.

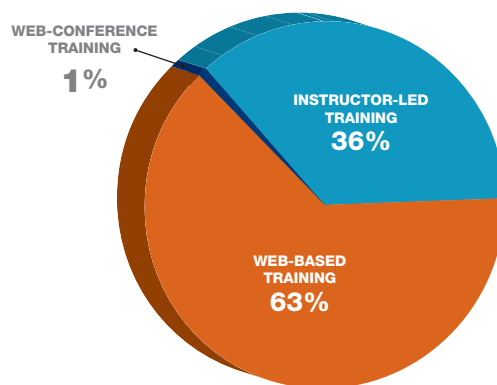
## PARTICIPATION BY DELIVERY TYPE AND PROGRAM AREA



## Distance Learning Participation

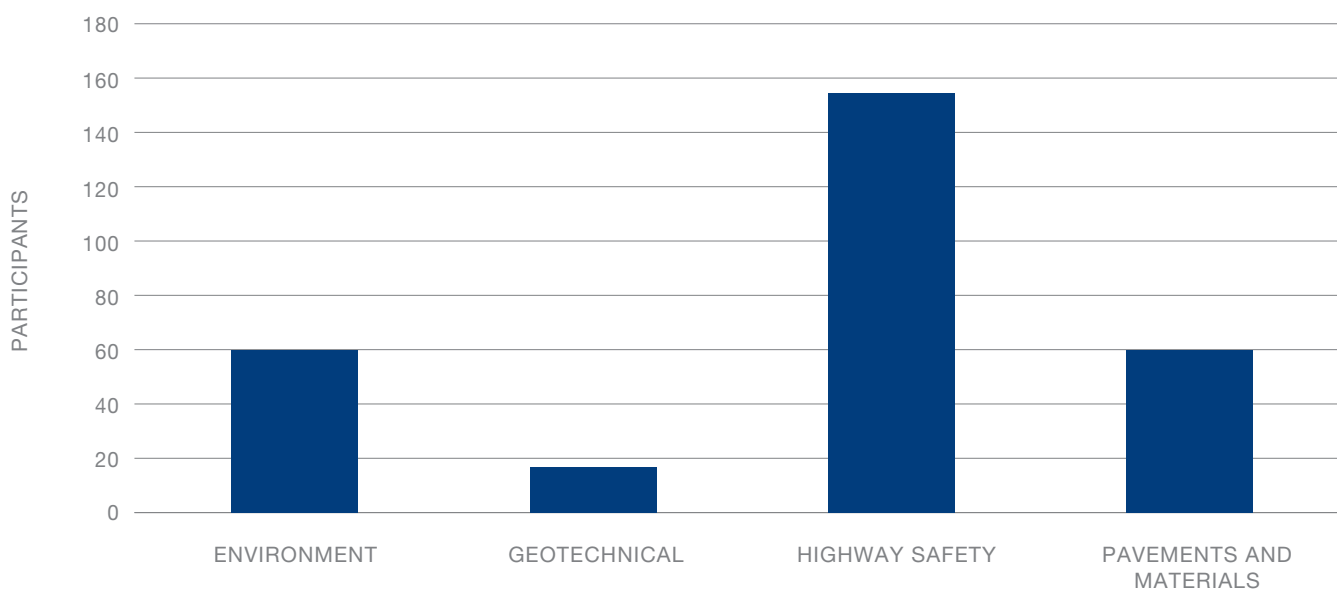
In FY 2012, NHI's dedication to creating convenient and easily accessible training enabled the number of WBT registrations to rise from 12,029 in FY 2011 to 22,650 in FY 2012. WBTs spanned 15 program areas in FY 2012, totaling 137 courses. The graph below shows total participation in NHI trainings by delivery type.

### TOTAL PARTICIPATION IN NHI TRAININGS BY DELIVERY TYPE



In FY 2012, 294 registrants were confirmed in WCTs, up from 284 in FY 2011. WCTs were held in four program areas.

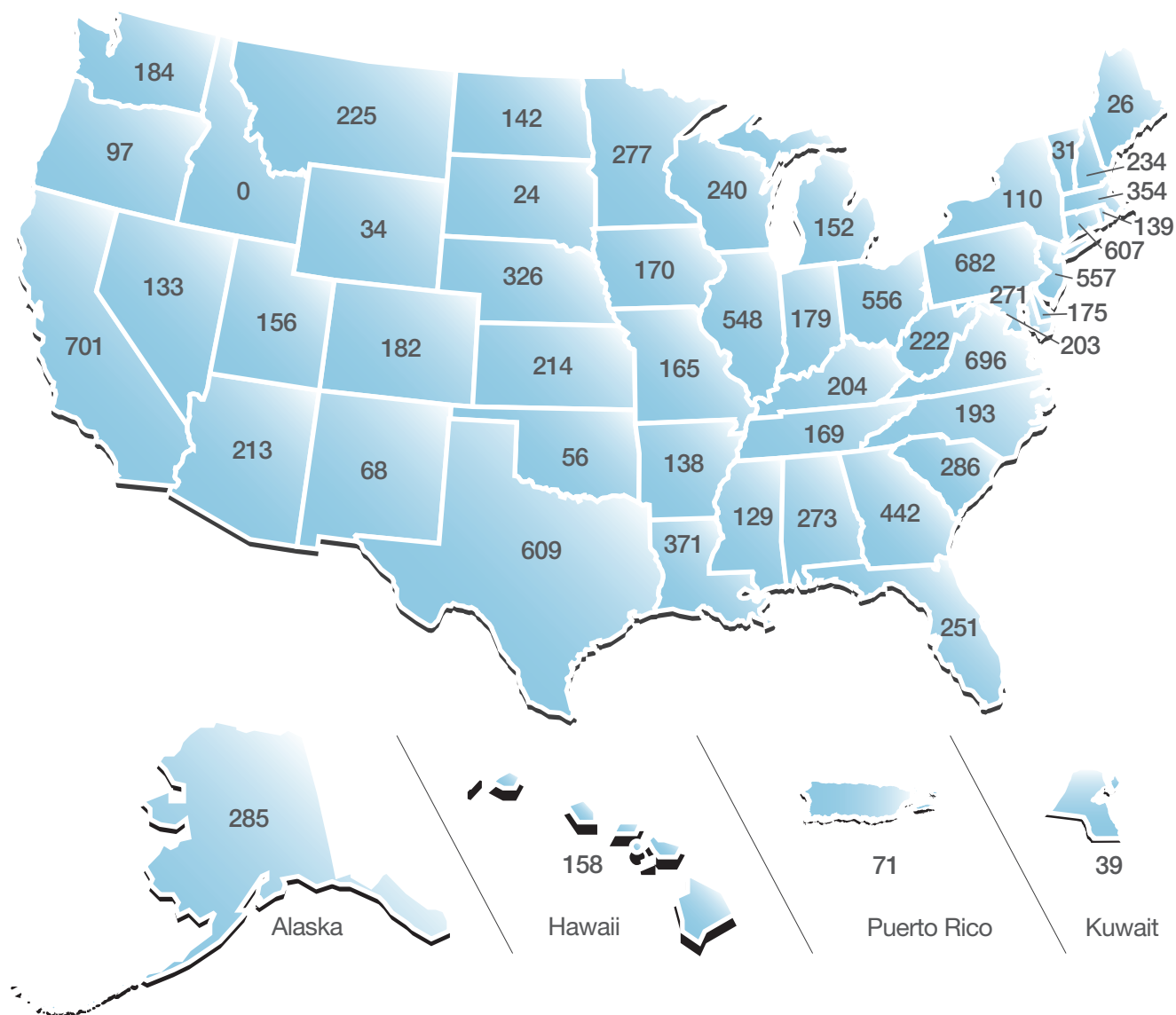
### WEB-CONFERENCE PARTICIPATION BY PROGRAM AREA



## Instructor-led Training Participation

In FY 2012, NHI held 519 ILT sessions, a 54-session decrease from FY 2011. A total of 12,967 participants enrolled in ILT training in FY 2012. The map below depicts the total number of ILT participants for each State. States with the highest participation were California (701), Virginia (696), Pennsylvania (682), Texas (609), and Connecticut (607).

### NUMBER OF ILT PARTICIPANTS BY GEOGRAPHIC LOCATION



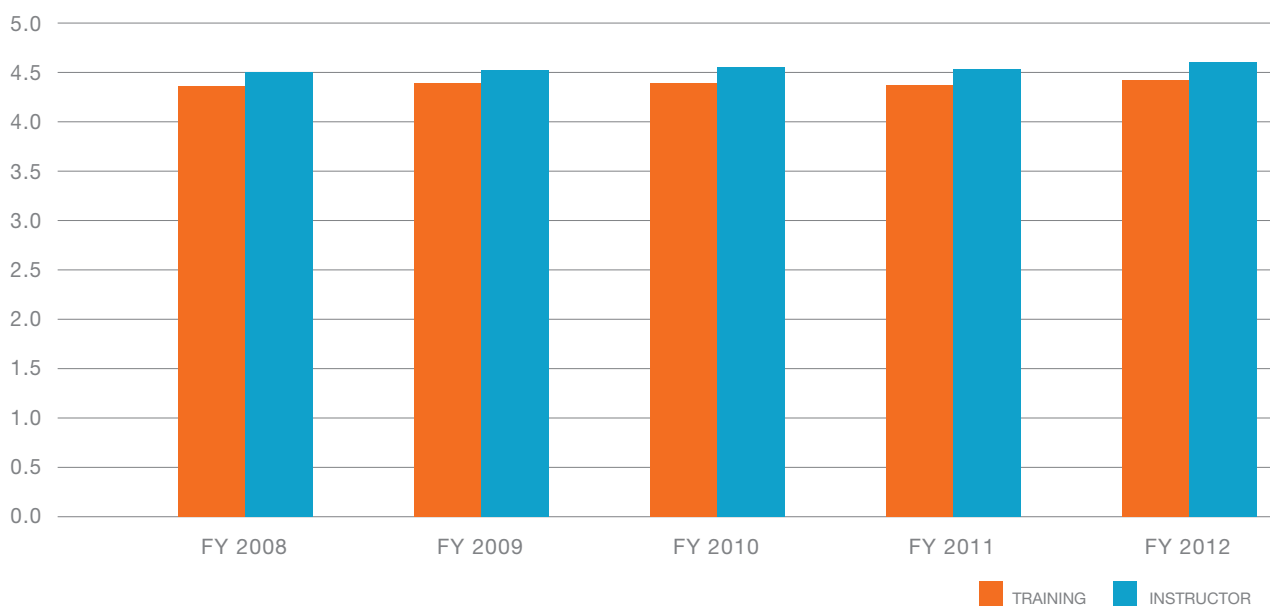
## COURSE DELIVERY QUALITY

### Participant Satisfaction Ratings

Upon completion of NHI training, participants are surveyed to evaluate both training content and instructor performance. NHI has consistently received high ratings for training and instructor performance. The following charts display the ratings, based on a 5-point scale, from FY 2008 to FY 2012, with FY 2012 having better ratings than past years.

PARTICIPANT SATISFACTION RATINGS					
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
TRAINING	4.39	4.39	4.37	4.36	4.42
INSTRUCTOR	4.52	4.55	4.53	4.53	4.59

#### PARTICIPANT SATISFACTION RATINGS

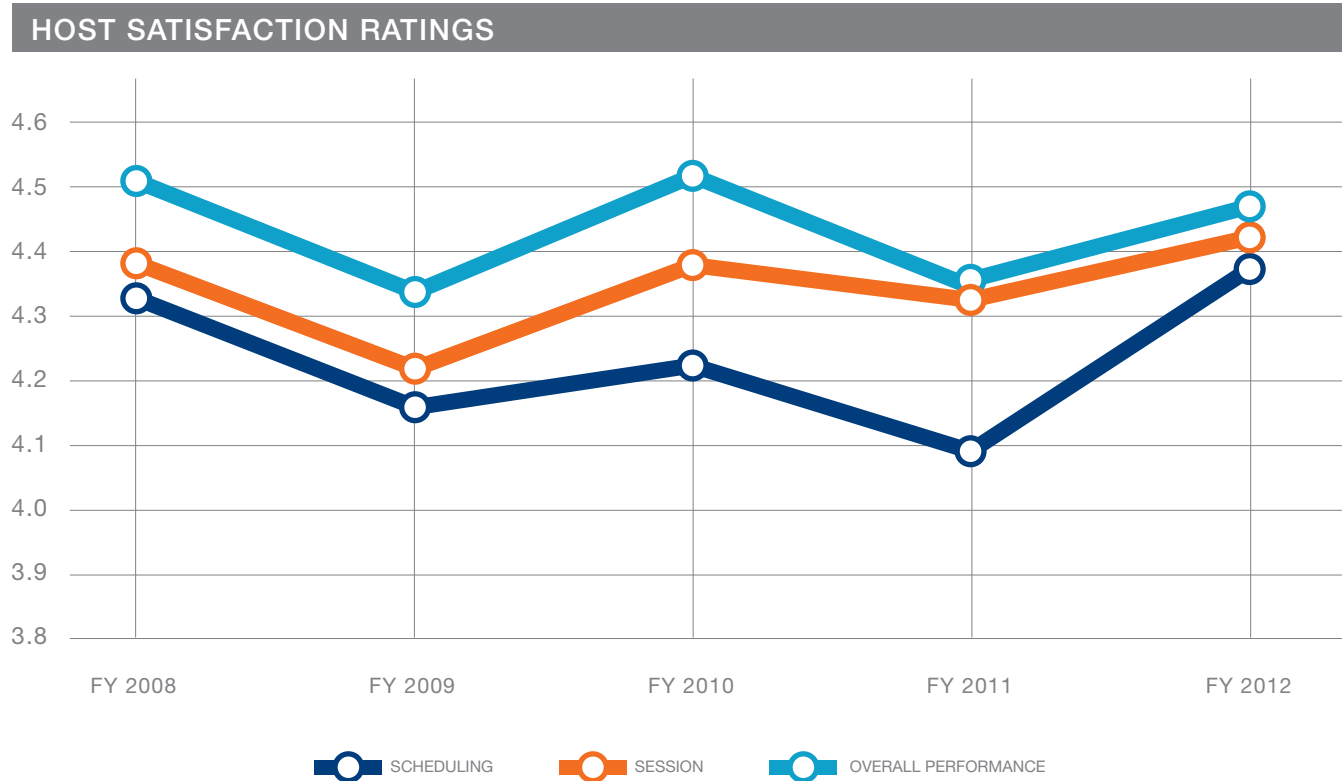




## Host Satisfaction Ratings

Host organizations are asked to complete satisfaction surveys to measure their experiences in the areas of Scheduling, Session Quality, and Overall Performance. Based on a 5-point scale, NHI views these surveys as an instrumental tool in developing high-quality customer service and assessing the effectiveness of training. Since hosts play such an integral role in the course delivery process, including initiating the process by requesting course sessions, their feedback is important to NHI. In FY 2012, each of the three areas surveyed had better scores than in FY 2011, with Scheduling and Session Quality receiving the highest ratings in the past 5 years.

HOST SATISFACTION RATINGS					
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
SCHEDULING	4.33	4.16	4.22	4.09	4.37
SESSION	4.37	4.21	4.38	4.32	4.41
OVERALL PERFORMANCE	4.51	4.33	4.51	4.33	4.46



## 2011 Instructors of Excellence

Each year, NHI honors instructors who excel at delivering high-quality trainings by declaring them Instructors of Excellence. To earn this distinction, instructors must consistently achieve participant satisfaction ratings of 4.5 or above (on a 5-point scale), be approved by an NHI training program manager, attend and pass the NHI Instructor Development Course, and achieve or be in the process of achieving NHI Instructor Certification. (For the complete list of 2011 Instructors of Excellence, see the Appendix.)

## CONFERENCE EXHIBITS NATIONWIDE

In FY 2012, NHI was represented at the following conferences for the transportation community:

1. **Deep Foundations Institute**, Boston, MA, October 2011
2. **Intelligent Transportation Society of America**, Orlando, FL, October 2011
3. **Transportation Research Board 91st Annual Meeting**, Washington, DC, January 2012
4. **International Association of Foundation Drilling**, San Antonio, TX, March 2012
5. **Intelligent Transportation Society of America**, National Harbor, MD, May 2012
6. **Institute of Transportation Engineers**, Atlanta, GA, August 2012

### NHI CONFERENCE ATTENDANCE



## INNOVATIVE SOLUTIONS TO REACH PARTICIPANTS

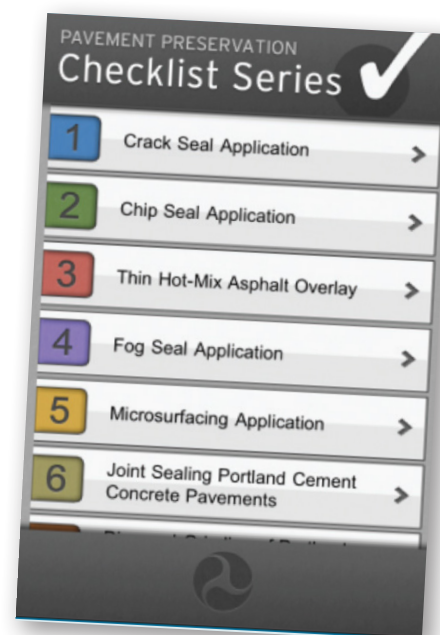
NHI strives to create convenient services for participants Nationwide, ensuring training reaches all who need it. Ongoing efforts are being made to incorporate new and improved technologies into courses and materials.

### Using Mobile Devices

NHI offers the Pavement Preservation Checklist series, a smartphone app available on Android™ and Blackberry®. To help State and local maintenance and inspection personnel meet requirements, this app consists of a digital version of the Pavement Preservation Checklist, which contains some of FHWA's most popular pavement-related documents. FHWA partnered with the Foundation for Pavement Preservation to create checklists on topics such as crack sealing, chip sealing, hot and cold in-place recycling, diamond grinding, and full- and partial-depth repair of Portland cement. Each topic includes reminders, cautions, and other tips on pavement preservation highlights.

### Connecting Remote Participants

To accommodate busy schedules and smaller budgets, NHI created a virtual conference that allowed State department of transportation (DOT) employees to participate in meetings using avatars that represented each State DOT. The technology enabled participants to virtually access valuable industry information and to interact with experts in their field. NHI demonstrated this technology at the International Association of Foundation Drilling's 2012 Expo in San Antonio, TX, with State DOTs. In the future, NHI plans to incorporate more virtual elements into training and to expand participation beyond State DOTs.



### Creating Accessible Inspections

NHI course 130055 Safety Inspection of In-Service Bridges formerly took participants on field trips to inspect bridges, with the goal of exposing them to real-world bridge conditions. However, field trips were not always ideal due to circumstances such as inclement weather or a lack of bridge defects for observation. Therefore, NHI developed a three-dimensional virtual bridge that allowed participants to see 30 bridge defects without leaving the classroom.

The virtual bridge was built using technology often used in video games, and was made to be intuitive so that little or no class time is spent teaching participants how to use the software. Two bridges are featured on this software—one four-span steel bridge and one single-span concrete bridge.

NHI continues to support Administrator Victor Mendez's focus on innovation by incorporating technological advances into trainings. Because of the amount of positive feedback NHI has received about these tools, it is developing several more mobile apps and continues to research more ways to bring innovative solutions into the classroom.

## APPENDIX

### Instructors of Excellence 2011 List of Awardees

Instructor	Company	
Stephen Seeds	Applied Pavement Technology, Inc.	
Kurt Smith		
James Bakken	Ayres Associates	
Paul Clopper		
John Hunt		
Jerry Richardson		
James Schall		
Terence Browne	Collins Engineers, Inc.	
Thomas Collins		
Richard Albin	FHWA	
Adam Alexander		
Craig Allred		
Mark Doctor		
Michael Duman		
Jerry Ellerman		
Thomas Elliott		
Peter Eun		
Veronica Ghelardi		
Scott Hogan		
Steven Jessberger		
Frank Julian		
John McFadden		
George Merritt		
W. Curtis Monk		
Reginald Keith Moore		
MaryAnn Nabor		
Ralph Volpe		
William Fitzgerald		GP Strategies Corporation/PerformTech, Inc.
Chris Huffman		
LeAngela Ingram		
Dane Ismart		
Gerald Kennedy		
Charlie O'Connell		
Margaret Parkhill		
Dee Spann		
Gary Thomas		
Betty Wilken		

Instructor	Company
Gregory Hostettler	Infrastructure Engineers, Inc.
Christopher Howard	
David Reser	
Jeffery Rowe	
Andrew Young	
Dennis Jackson	KBA, Inc.
A. Tamim Atayee	Kilgore and Associates
Roger Kilgore	
Diane Nulton	McCormick Taylor
Darrell Burnett	Metric Engineering
Dennis Baughman	Michael J. Baker Jr., Inc.
Milo Cress	
Andrew Fickett	
William Gardener	
James Gundry	
Guy Lang	
J. Eric Mann	
Thomas Ryan	O. R. Colan Associates
John Wackerly	
Elissa Barnes	
Robert Kleinburd	
Robert Merryman	Parsons Brinckerhoff
Theodore Pluta	
Daniel Brown	Ryan R. Berg and Associates, Inc./ Geosyntec Consultants
Robert Bachus	
Burak Tanyu	Ryan R. Berg and Associates, Inc.
Barry Christopher	
Bruce Landis	Sprinkle Consulting, Inc.
Theodore Petritsch	
Kathy Baumgaertner	SRI Foundation
David Cushman	
Terry Klein	
James Collin	The Collin Group, Ltd.
Brian Furniss	Trauner Consulting Services, Inc.
J. Scott Lowe	
Mark Nagata	
Frank Brewer	University of Tennessee
Richard Gumtau	