



Transportation Curriculum Coordination Council (TCCC)

Addressing Challenges in
Construction, Materials and
Maintenance Workforce Quality



Topics of Discussion

- Training & Certification – NESMEA/NEAUPG
- What is the TCCC?
- Workforce Development Challenges
- Accomplishments
- Current Activities Underway
- Future Opportunities

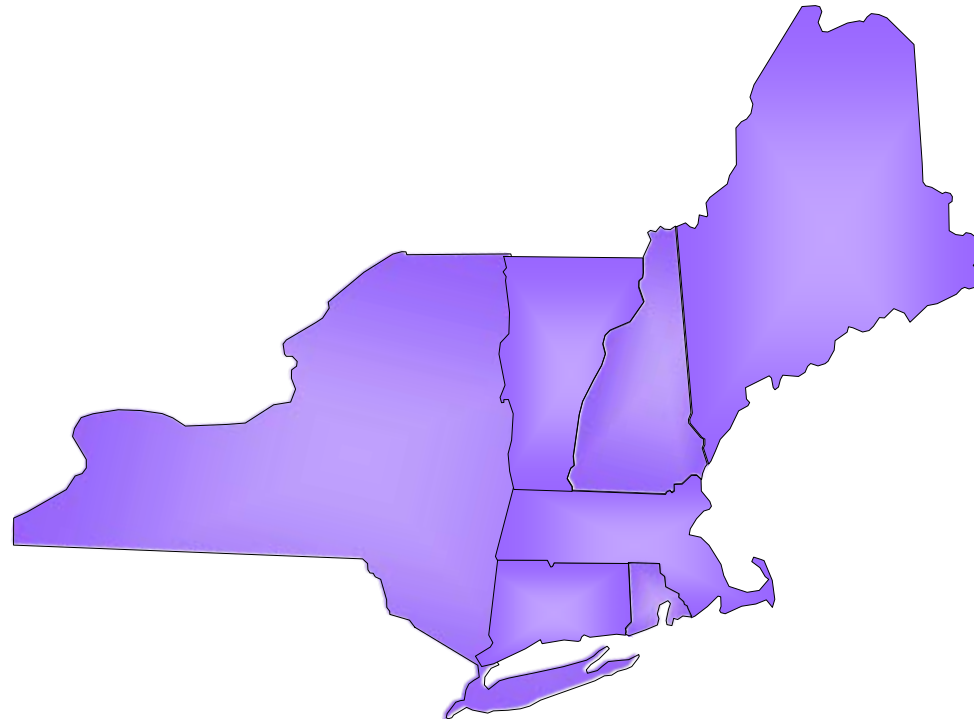


Training & Certification within NESMEA and NEAUPG States



NETTCP

- Training & Certification for Construction/Materials Inspectors and Technicians (provides reciprocity)
- 1995 – Non-Profit organization (New England States)
- 2008 – NYSDOT became member State

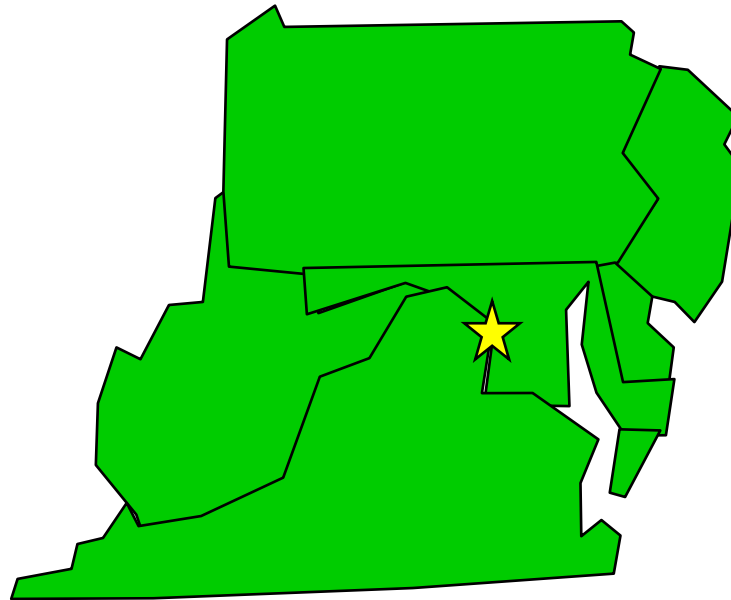


**NorthEast Transportation Training
& Certification Program**



MARTCP

- Training & Certification for Construction/Materials Inspectors and Technicians (provides reciprocity)
- Late 1990's – Organization of Mid-Atlantic States



Mid-**A**tlantic **R**egional **T**raining & **C**ertification **P**rogram



What is the TCCC?



TCCC

- A National Federal/State/Industry partnership that supports training of construction/materials & other personnel
- TCCC Goals/Mission:
 - Establish and maintain a national core curriculum for various transportation disciplines
 - Identify training and certification requirements
 - Coordinate/facilitate training and certification efforts
 - Develop training materials
 - Support agency training efforts



TCCC Member Organizations

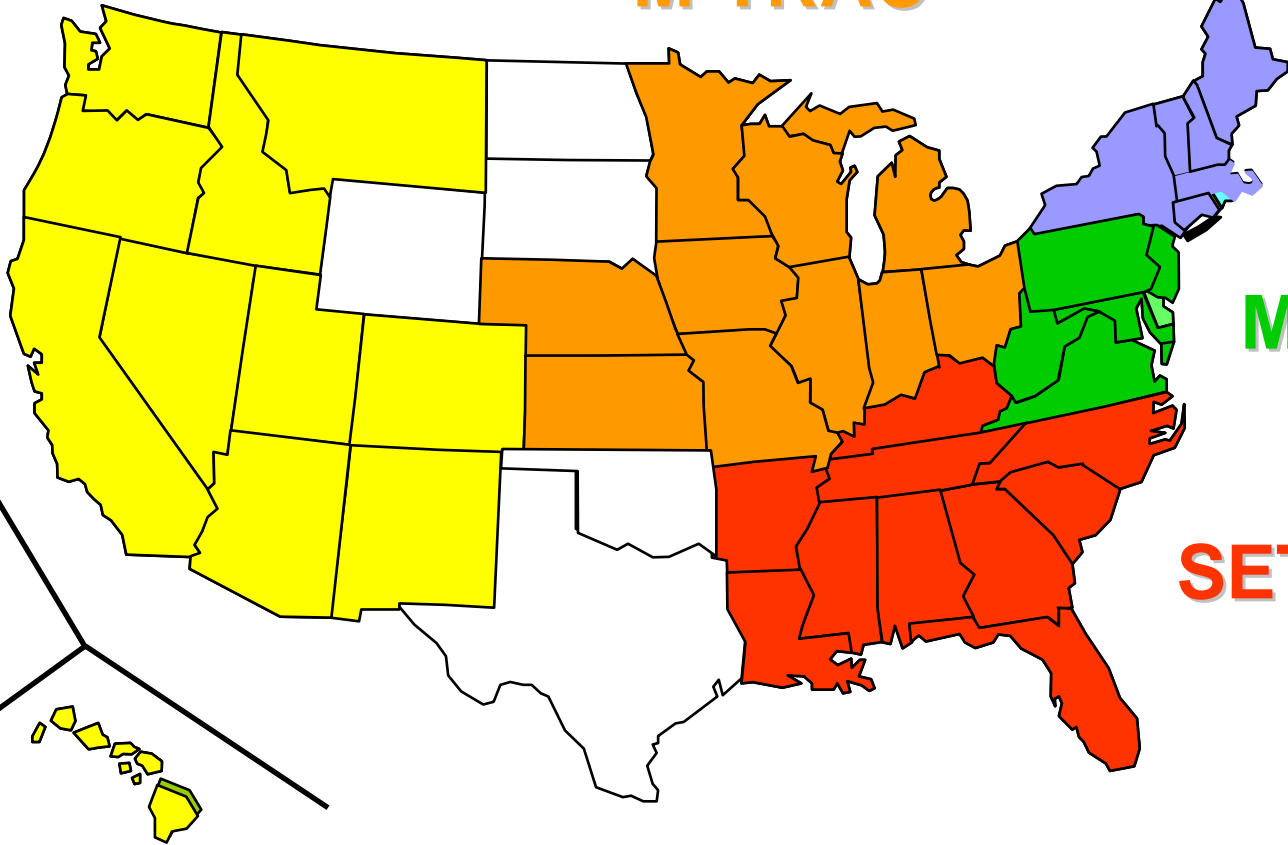
WAQTC

M-TRAC

NETTCP

MARTCP

SETFTTQ



AASHTO

FHWA

INDUSTRY

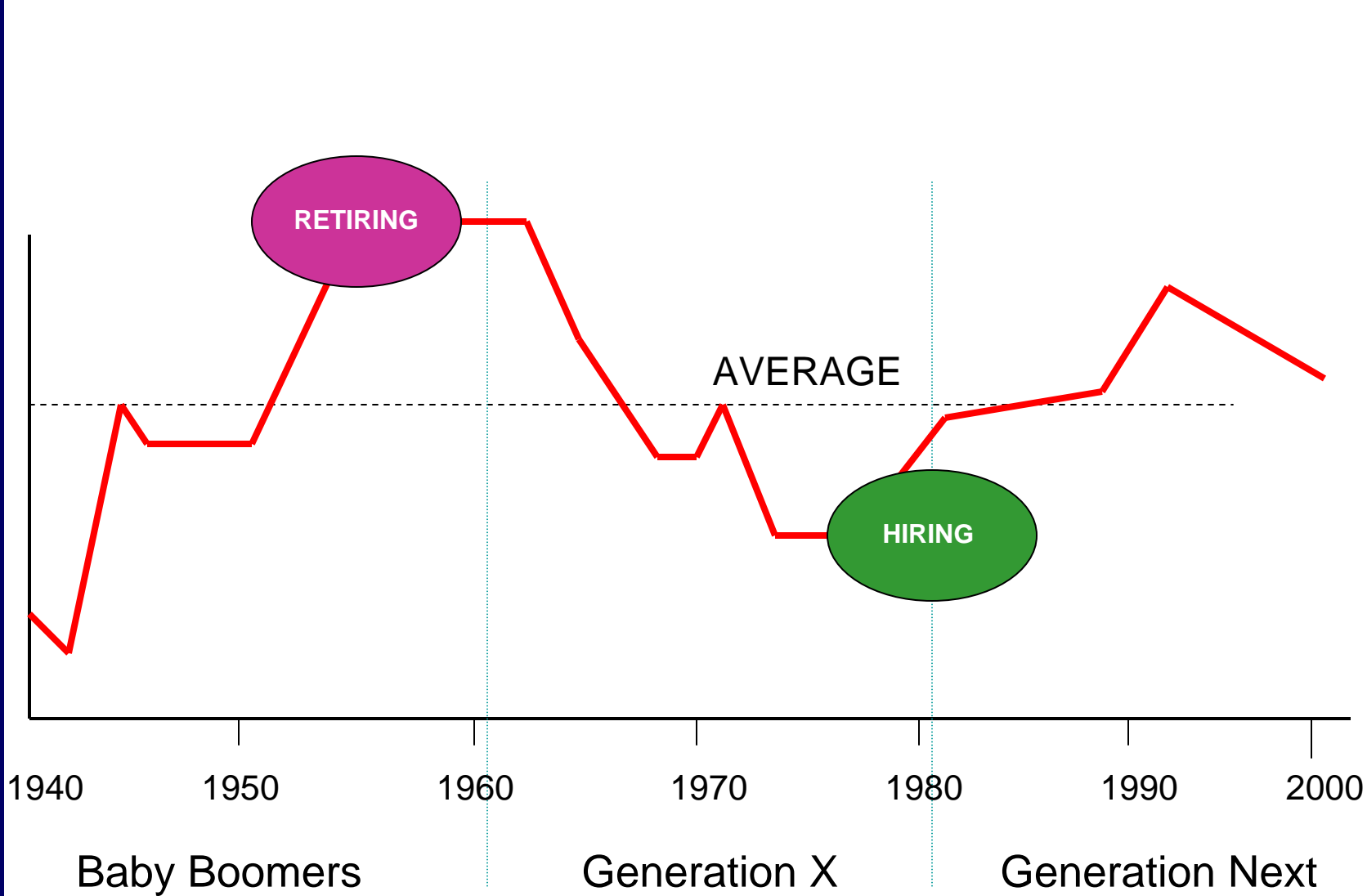




Workforce Development Challenges



US Birth Rates





Workforce Facts

- A 2005 report showed that there are about 950,000 vacant positions in the construction skilled trades area
- It is estimated that this could rise to one million within a couple of years
- A career in the construction industry was rated **498th** out of 500 by high school students and their parents



TCCC Accomplishments



TCCC Current Activities

- National Training Database
- Training development
- E-Learning



National Training Database

- National Partners/contributors:
 - TCCC, NTTD, LTAP, Regional Groups
 - AASHTO, TRB, ITE
- Locating existing training from a variety of disciplines within construction/materials and maintenance
- Assist in gap analysis for new course development



Training Products Database

- Complete data on training courses
 - objectives, level, audience, tests, manuals, contacts, etc.
- Review and link to competencies by level
- Maintain online searchable training database
 - more than 50 subject areas



National Training Database (NTTR)

U.S. Department of Transportation
Federal Highway Administration

FHWA Home

National Transportation Training Resource
Supporting the Training of the Highway Workforce

[Search the NTTR](#) | [About the NTTR](#) | [Competency Matrices](#) | [What's New!](#) | [Contact Us](#) | [Feedback](#) | [FAQs](#)

NTTR Beta - Search for Transportation Training Resources

KEYWORD SEARCH

ADVANCED SEARCH
[Preview Here!](#)

SEARCH BY TCCC TECHNICAL CATEGORY
Select a single term in any one or more dropdowns to return all related resources.

Please select a Technical Category...
Please select a Subject Area...
Please select a Discipline...
Please select a Skill Level...
Please select a Competency...

Login

User Name:

Password:

[Forgot Password?](#) [Register](#)

In the Hot Mix

- NTTR Database Resource Count: **462**
Contributed by 26 organizations
- Advanced Search capability now available.
- Feedback Form is available.

[See More News...](#)

Use the search tools to look for resources. Your search results will appear here.

FHWA

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United States Department of Transportation - **Federal Highway Administration**

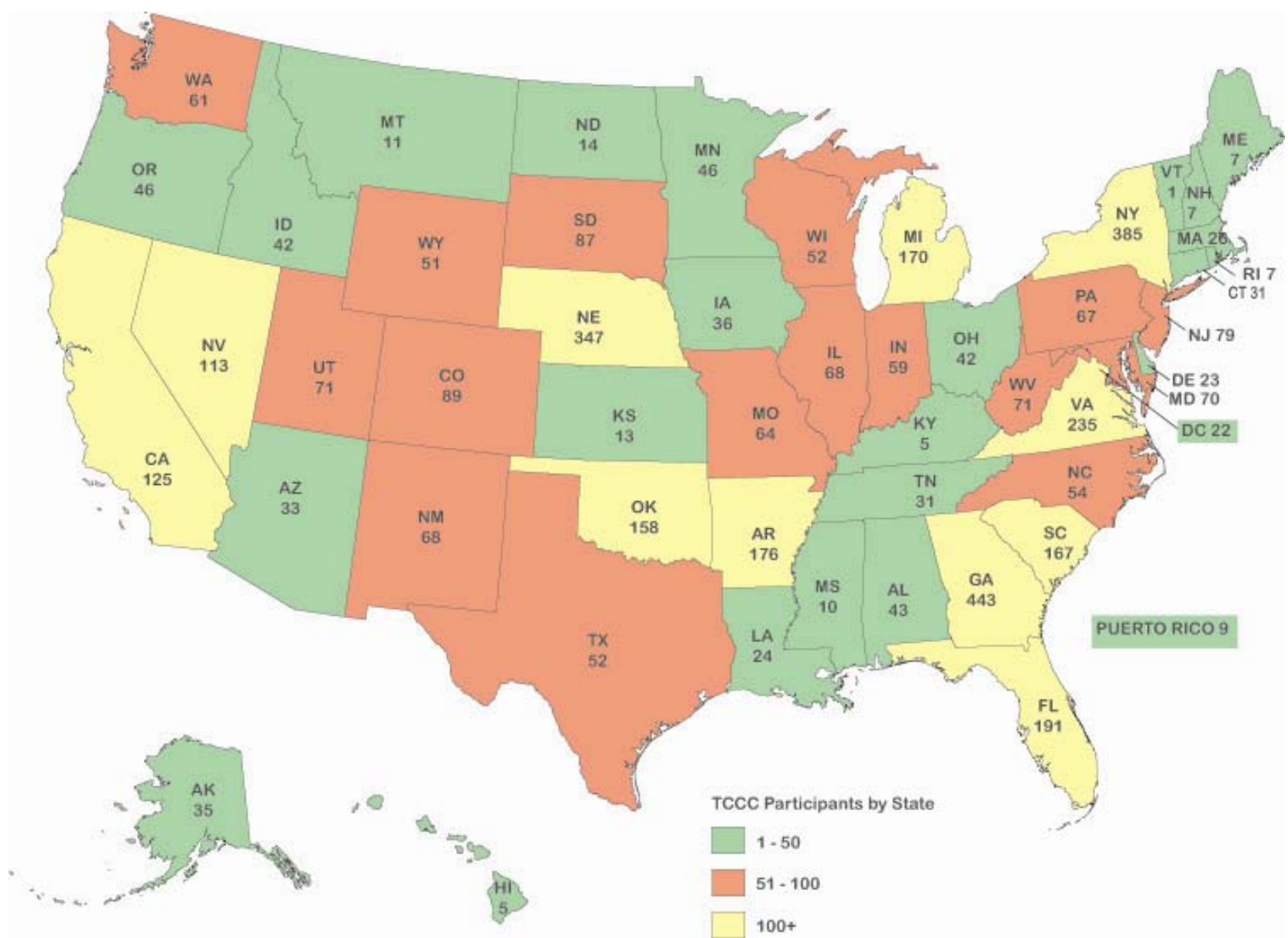


Completed Web Based Training

- FHWA-NHI-131117
 - Basic Materials for Highway and Structure Construction and Maintenance
- FHWA-NHI-131122
 - Portland Cement Concrete Paving Inspection
- FHWA-NHI-134069
 - Ethics Awareness for the Transportation Industry
- FHWA-NHI-134071
 - Basic Construction and Maintenance Documentation - Improving the Daily Diary
- FHWA-NHI-134072
 - Math Module
- FHWA-NHI-134075*
 - Hardened Concrete Properties – Durability
- FHWA-NHI-134078
 - GPS Technology
- FHWA-NHI-134081
 - Plan Reading
- FHWA-NHI-134084*
 - Fundamentals of Materials Used for Concrete Pavements

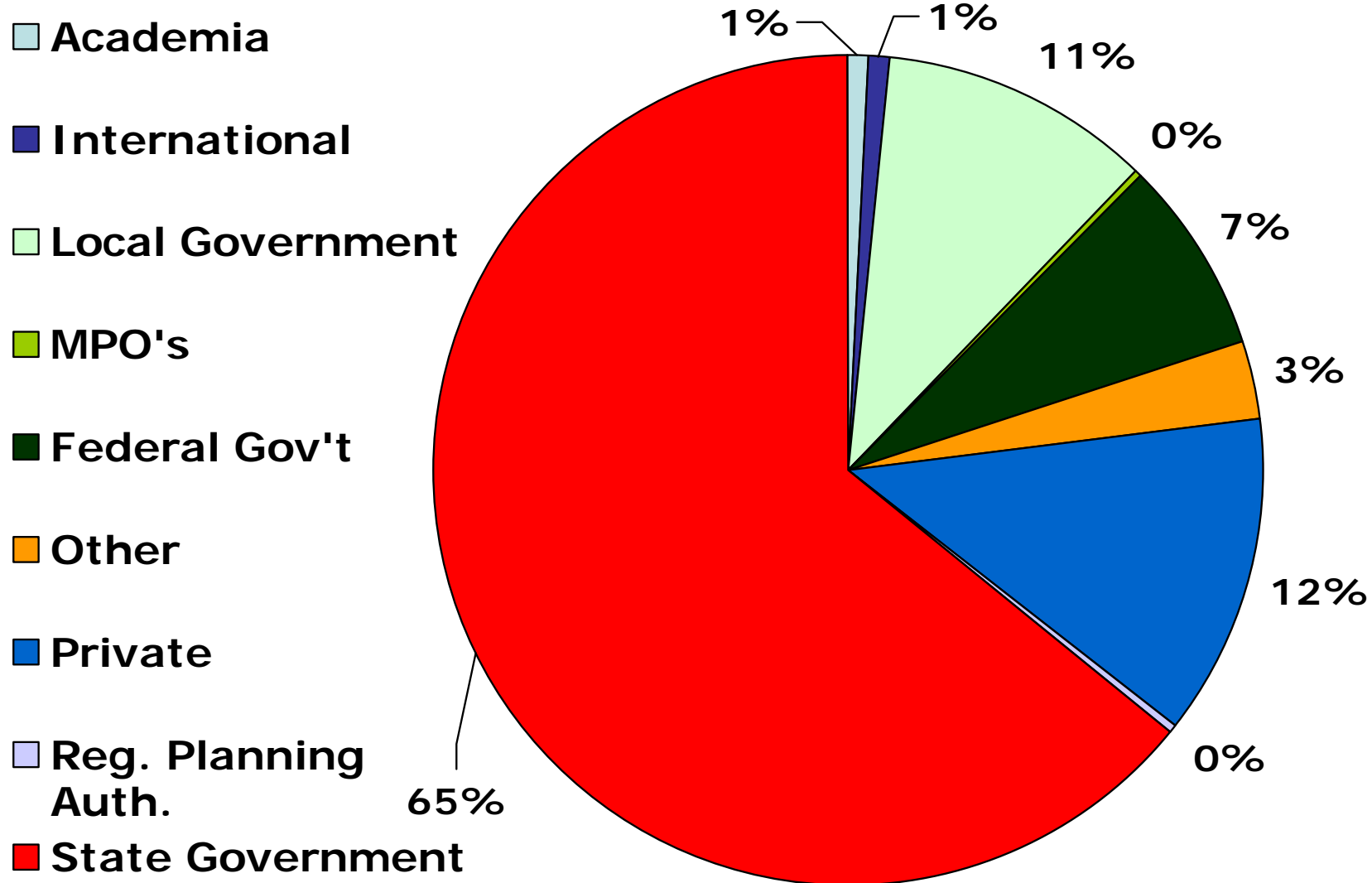


NHI Website Training Numbers – Participants by State





NHI Website Training Numbers – Participants by Industry Type





TCCC Trainings Shared with States

- States TCCC has shared training with:
 - Iowa
 - Texas
 - Maryland
 - Minnesota
 - Alabama
 - North Dakota
 - South Carolina
- Use with Intranets and LMSs
- Some States make TCCC training required
 - Math Module for Supervisors – Minnesota (357)
 - Ethics Awareness Statewide – Alabama (3,428)



Total Participants Training Numbers

Course Number	NHI	States (Shared)	Total
FHWA-NHI-131117	527	57	584
FHWA-NHI-131122	55	13	68
FHWA-NHI-134069	499	3482	3981
FHWA-NHI-134071	398	98	496
FHWA-NHI-134072	332	399	731
FHWA-NHI-134075	203	19	222
FHWA-NHI-134078	468	38	506
FHWA-NHI-134081	927	45	972
FHWA-NHI-134084	225	23	248
FHWA-NHI-134085	128	17	145
FHWA-NHI-134087	200	16	216
FHWA-NHI-134095	75		75
FHWA-NHI-134096	58		58
FHWA-NHI-134097	11		11
FHWA-NHI-134098	18		18
FHWA-NHI-134100	9		9
FHWA-NHI-134101	7		7
FHWA-NHI-134102	4		4
Totals	4140	4207	8347

*Participant totals only include Iowa, Texas, Minnesota, and Alabama at this time





Evaluation Average Scores

Course Number	Course Title	Score
FHWA-NHI-131117	Basic Materials for Highway and Structure Construction and Maintenance	4.20
FHWA-NHI-131122	Portland Cement Concrete Paving Inspection	
FHWA-NHI-134069	Ethics Awareness for the Transportation Industry	4.17
FHWA-NHI-134071	Basic Construction and Maintenance Documentation - Improving the Daily Diary	4.55
FHWA-NHI-134072	Math Module	4.12
FHWA-NHI-134075	Hardened Concrete Properties - Durability	4.24
FHWA-NHI-134078	GPS Technology	4.37
FHWA-NHI-134081	Plan Reading	3.96
FHWA-NHI-134084	Fundamentals of Materials Used for Concrete Pavements	4.36
FHWA-NHI-134085	Incompatibility in Concrete Pavement Systems	4.37
FHWA-NHI-134087	Mix Design Principles	4.48
FHWA-NHI-134095	Early Age Cracking	4.34
FHWA-NHI-134096	Basics of Cement Hydration	4.08
FHWA-NHI-134097	Fresh Properties	
FHWA-NHI-134098	Construction of Concrete Pavements	
FHWA-NHI-134100	QCQA for Concrete Pavements	
FHWA-NHI-134101	Design of Pavement	4.40
FHWA-NHI-134102	Troubleshooting for Concrete Pavements	



What Participants Are Saying

- FHWA-NHI-134081 (Plan Reading)
For me it was a satisfactory program because it reinforced some of the things I already [knew] and got exposure in other areas I have not had prior experience.
- FHWA-NHI-134078 (GPS Technology)
I am in construction inspection, though I have been on projects with paper plans and electronic data, I have not been on a project where GPS was directly employed in field construction. This course was a good exposure for me.
- FHWA-NHI-134075 (Hardened Concrete Properties)
It refreshes some concepts I have not used in a while and provided an understanding of new ones. The course was definitely relevant to some aspects of construction inspection.



What Participants Are Saying

- FHWA-NHI-134087 (Mix Design Principles)
The course provided an updated knowledge in the subject area presented.
- FHWA-NHI-134095 (Early Age Cracking)
Course presented a clear understanding of early age cracking in concrete.
- FHWA-NHI-134069 (Ethics Awareness)
I liked the online method. It suited my work schedule. Course was good for all areas of DOT but especially for Quality Assurance personnel.
- FHWA-NHI-134071 (Basic Documentation)
I think this is a great opportunity for all of us! And it's great to be able to have this material to learn or refresh at a push of a button!



Current Activities Underway



Training Development In Progress

- FHWA-NHI-131121
 - Construction of PCC Pavements
- FHWA-NHI-131126
 - Concrete Pavement Preservation
- FHWA-NHI-131127
 - Concrete Series (IMCP Manual)
- FHWA-NHI-134074
 - Bolted Connections
- FHWA-NHI-380098
 - Maintenance of Traffic for Technicians
- FHWA-NHI-380099
 - Maintenance of Traffic for Supervisors
- FHWA-NHI-131128
 - Self Consolidating Concrete
- FHWA-NHI-134105
 - Surveying
- FHWA-NHI-134106
 - Pipe Inspection
- FHWA-NHI-380101
 - Safety Orientation



Future Opportunities



Marketing Efforts

- NHI Website Single Login Feature
- NHI “Blue Line” sheets
- Executive Summary
- “On the Go” training



"On the Go" Training

- MP4 Players
- Increased mobility and accessibility
 - Reach a larger audience
 - Provide on-demand training as the participants require
- Multiple formats
 - Desktop
 - Laptop
 - Portable (Phone/PDA)



Supporting TCCC

How can State Partners Support TCCC:

- Provide financial support to Pooled Fund (TPF – 5(209))
- Volunteer for Technical Panels for Course Development
- Contribute a course to the NTTR that you or your state/organization has developed
- Volunteer on TCCC committees that collect, analyze and develop training resources



For Information

For more information, visit:

www.nhi.fhwa.dot/tccc

Or contact:

**Christopher Newman
FHWA Office of Asset Management
(202) 366-2023**

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Thank you Jim Sorenson





Resource Center Training/Workshops

- Transportation Construction Quality Assurance (FHWA-NHI-134064)
- Construction Program Management & Inspection Workshop (FHWA-NHI-134061)
- Contract Administration Core Curriculum Workshop (FHWA-NHI-134077)



Thank You

Questions?

