Transportation Curriculum Coordination Council (TCCCG)

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

Mid-Atlantic Regional Training & Certification Program
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
Workforce Development Challenges
US Birth Rates

- Baby Boomers
- Generation X
- Generation Next

- RETIRING
- AVERAGE
- HIRING

- 1940
- 1950
- 1960
- 1970
- 1980
- 1990
- 2000
• 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 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
• 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)
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

[Map of the United States showing the number of participants by state, with legend indicating the number of TCCC participants by state: 1-50, 51-100, 100+, and figures for each state are displayed.]
NHI Website Training Numbers – Participants by Industry Type

- State Government: 65%
- Federal Gov't: 11%
- Other: 3%
- MPO's: 7%
- Local Government: 0%
- International: 0%
- Academia: 1%
- Private: 12%
- Reg. Planning Auth.: 0%
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)
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*Participant totals only include Iowa, Texas, Minnesota, and Alabama at this time*
# Evaluation Average Scores

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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
• 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 more information, visit:

www.nhi.fhwa.dot/tccc

Or contact:
Christopher Newman
FHWA Office of Asset Management
(202) 366-2023

christopher.newman@dot.gov
Thank you Jim Sorenson
• 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?