



Midwest Transportation Workforce Center

www.mtwc.org

MTWC Highway Maintenance Engineering Career Pathways Initiative

The Midwest Transportation Workforce Center (MTWC) has embarked on a two-year endeavor to establish pathways for skilled careers in the Highway Maintenance Engineering (HME) discipline. This discipline requires a broad range of knowledge and skills covering: engineering economics, quality control and assurance, safety, security, environment, material resources, sustainability, and public policy. Additionally, individuals working within HME may have specific skills in the areas of drainage, road and shoulder, bridge, culvert and road maintenance, fleet management, winter operations, and work-zone traffic control.

MTWC has formed a discipline working group of national leaders in HME to focus on the skill and competency requirements of entry-level highway maintenance workers in response to key trends that will affect this field. These trends include advancements in vehicle automation, the emergence of information system sensing and communication technologies, and the growing evidence regarding the environmental and health impacts of transportation.

The career pathways initiative will identify current and emerging occupations (over the next 5-to-15 years) of highest demand, develop competency models, and define strategies for the implementation of a career pathway. During the process, MTWC will partner with technical colleges, workforce development boards, state transportation agencies, and professional organizations to document guidelines for successful approaches in training and to pinpoint where curricula should be broadened to meet emerging skill requirements.

Defining a career pathway in HME will ensure that:

A young person can clearly see the opportunities and the multiple resources that are available in the form of experiences, training and education to achieve a career in Highway Maintenance.



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To learn more, visit: <http://mtwc.org/initiatives/highway-maintenance-engineering-career-pathways/>

Career Pathways Initiative Goals

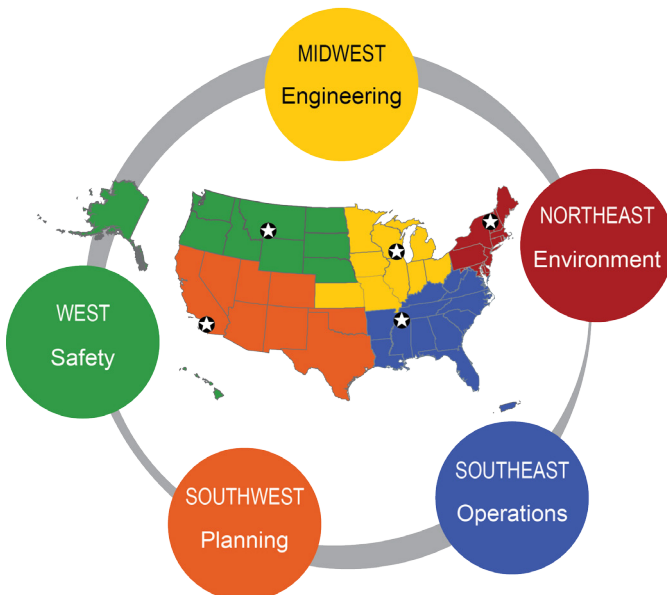
- To explore multiple paths into Highway Maintenance Engineering including apprenticeship.
- To embed the principles of asset (resource) management into curricula.
- To create or identify a stakeholder network of HME practitioners that can scale the pathway template and validate results.
- To improve connections between the educational community and the transportation sector.
- To articulate the multiple paths to employment in the Highway Maintenance discipline by identifying common KSAs in construction, environment, engineering tech, GIS, and other fields.

Part of a National Career Pathways Initiative

MTWC's work is part of the National Transportation Career Pathways Initiative (NTCPI). The MTWC together with its counterparts across the country are focusing on creating pathways in five disciplines: Engineering, Safety, Planning, Environment, and Operations. This initiative is the first strategic effort funded by the U.S. Department of Transportation Federal Highway Administration to develop career pathways. To learn more about NTCPI and the National Network for the Transportation Workforce (NNTW), visit nntw.org.

“The National Transportation Career Pathways Initiative will inspire students to pursue critical, in-demand transportation occupations.”

<http://nntw.org/career-pathways>



HME Discipline Working Group Members

- Rita Cassida, American Public Works Association
- Mark Chaput, Michigan DOT & AASHTO TC3
- Steve Lewis, Associated General Contractors – Missouri
- Steven Lund, Minnesota DOT
- Thomas Lyden, Ohio DOT
- Jerry Mandli, Dane County Public Works
- Dawn Pratt, Walbec Group
- Mark Robinson, DBI Services, Inc. (INVITED)
- Dennis Randolph, City of Grandview, Missouri, Public Works
- Chrystal Seeley-Schreck, Wisconsin Technical College System
- Xinge Wang, Transportation Learning Center

An Integral Part of a National Network

Based at the University of Wisconsin–Madison, the MTWC is one of five regional centers that make up the National Network for the Transportation Workforce (NNTW). Together, these centers contribute to a national strategy for transportation workforce development. The MTWC and the other regional centers are funded by the Federal Highway Administration.

National Network for the Transportation Workforce

- Five Regional Transportation Workforce Centers based at universities across the country.
- Facilitate national and local partnerships with key public and private organizations throughout the transportation, education, labor and workforce investment communities
- Work together to provide a more strategic and efficient approach to transportation workforce development.
- Identify and promote effective transportation workforce activities and programs.



NNTW.org

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About the MTWC – Our Role

MTWC takes a strategic approach to workforce development by engaging and facilitating partnerships between the transportation industry, education, and economic development sectors in nine Midwestern states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. The Center does this by:

- Gathering stakeholders and leveraging their knowledge and ideas.
- Generating awareness about transportation careers.
- Facilitating stakeholder communication, connections, and collaboration.
- Building and sustaining a network of transportation organizations and people.
- Exploring other sectors for innovative practices.

In addition to these partnerships, the MTWC analyzes workforce data, promotes and helps create workforce development initiatives, and curates a clearinghouse of transportation workforce development resources.

Resources

These resources may be found on the MTWC website:

- Transportation Workforce Success Stories
- MTWC Clearinghouse: a searchable database of workforce programs, initiatives, and educational and training programs
- Diversity and Inclusion (D&I) Virtual Roundtable
- Highway Maintenance Engineering Career Pathways Initiative
- Webinar Series: Accelerating Apprenticeship in the Transportation Sector
- Calendar of Events pertinent to Transportation Workforce Development
- Community of Practice: a place to informally share resources
- Monthly email newsletter

Staff

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