

TSMO-Work Force Development

TSMO Round Table

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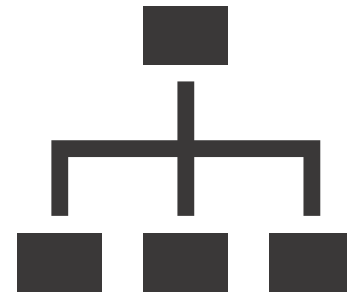
Roger Millar, Secretary of Transportation

Keith Metcalf, Deputy Secretary of Transportation

TSMO – Work Force Development



What's Changed



Traditional Staff Development –
Formalized training Matrix

Workforce
Development
Needs

Understanding the training needs



Lack of resources to address the needs

Internal trainers have been repurposed to address immediate needs in other areas.

Funding Limitations

Addressing the needs of Workforce Development



Established a new position to oversee Workforce Development as related to TSMO



Understanding the Immediate Workforce training needs



Identify funding opportunities



Identify Training opportunities

Making Use of Existing Resources

- PacTrans
- NHI
- Operations Academy
- University of Washington
- Internal Expertise

PacTrans

The Pacific Northwest Transportation Consortium (PacTrans)

- Regional University Transportation Center (UTC) for federal region 10
 - Oregon State University (OSU),
 - the University of Alaska, Fairbanks (UAF),
 - University of Idaho (UI), University of Washington (UW),
 - Washington State University (WSU),
 - Boise State University (BSU)
 - and Gonzaga University (GU).
- Serving as Region 10's research engine, applied technology showcase, workforce development base, education leader, information center, and collaboration platform



Provide training services addressing WSDOT's immediate workforce development needs

❑ **Collaboration between PacTrans and WSDOT**

- UW: Dr. Yin Hai Wang, Dr. Wei Sun
- OSU: Dr. Shane Brown, education and adult learning expert
- UAF: Billy Connor, road design and construction expert
- WSDOT subject matter experts (SME) input

❑ **Develop and deliver short-term training courses**

- Manual on Uniform Traffic Control Devices (MUTCD)
- Human Factors
- Big Data Analysis and Tools

Interactive E-learning course

- ❑ **Active learning strategies (E-learning strategies for adult learning)**
 - Virtual instruction (virtual synchronous course delivery)
 - Case studies, exercises, discussions, individual poll through Zoom and Canvas
 - Washington spotlights
- ❑ **Reliable assessment and evaluation processes of learning**



Pre-training survey

❑ Objectives

- Understanding and experience towards training topics
- Expectation/preference towards training courses

❑ Questions

- Employment background (questions 1-7)
- Training background (questions 8-10)
- MUTCD training related (questions 11-20)
- Human factors training related (questions 21- 28)
- Interest in follow-up phone interview (question 29)

❑ 147 responses (4/7/2020 – 4/21/2020)

	<i>Frequency</i>	<i>Percentage</i>
Eastern Region	10	6.80%
Southcentral Region	5	3.40%
North Central Region	5	3.40%
Northwest Region	70	47.62%
Olympia Region	32	21.77%
Southwest Region	9	6.12%
Headquarters	16	10.88%

SME input on MUTCD

Review/comment of curriculum and WA specific regulations and practices

- Pavement markings, - Striping/Design Engineer
- Signing: - State Signing Engineer
- Signals: - State Traffic Systems Electrical Engineer
- Work zone: - State Work Zone Engineer

Human factors course outline

- ❑ Overview of human factors in transportation system (characteristics and limitations of road users: drivers and pedestrians)
- ❑ Applications of human factors in the transportation engineering field
- ❑ Impacts of human factors on traffic system design and operations (ADA regulations, human centric design concept, etc.)
- ❑ Scenario-based case studies on a variety of topics (visibility and lighting, driver assistance, safety problem identification, reducing unsafe behaviors, etc.)

NCHRP
REPORT 600

**Human Factors Guidelines
for Road Systems**

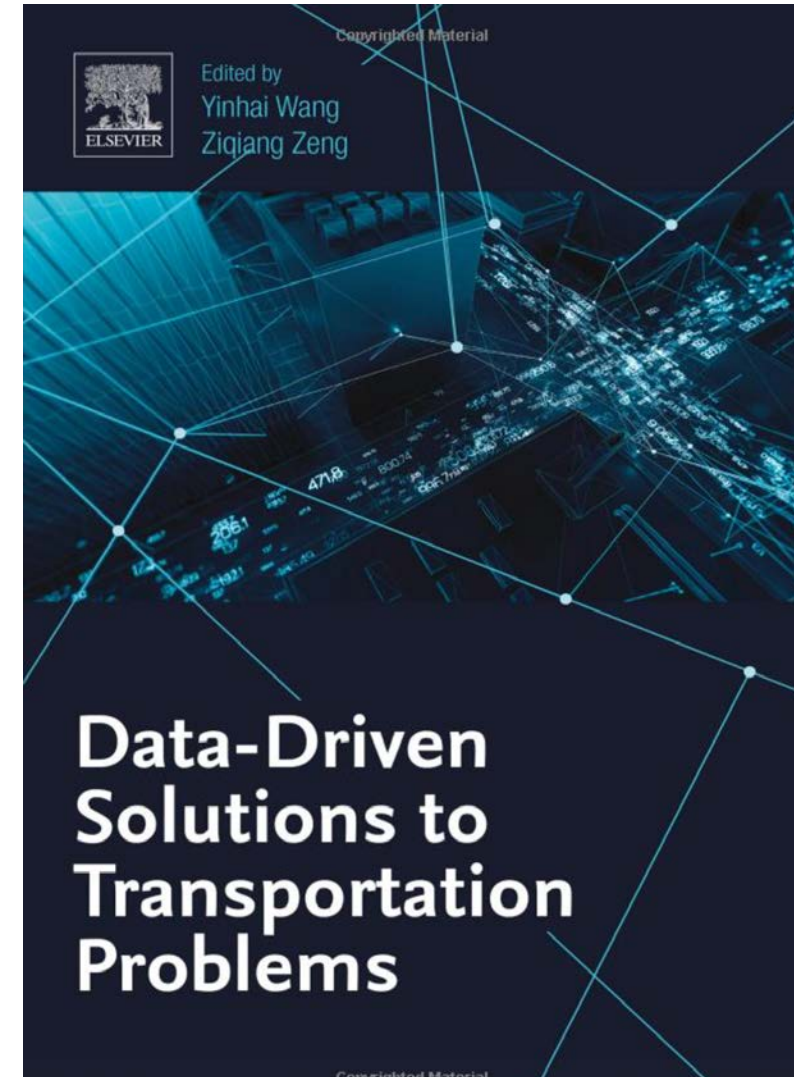
Second Edition

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

NATIONAL
COOPERATIVE
HIGHWAY
RESEARCH
PROGRAM

Data analysis and tools course outline

- ❑ Overview of concept and applications of data analysis in transportation engineering
- ❑ Challenges and opportunities of Big Data
- ❑ Basic methods and techniques for data management
- ❑ Data analysis and visualization that supports decision making
- ❑ Hand-on experience with data analysis and supporting tools on example applications



Welcome to TSMO,

the transportation systems management and operations website.

The Washington Department of Transportation (WSDOT) hosts this site for professionals to learn more about transportation strategies and concepts along a range of topics and disciplines.

[Learn more about TSMO](#)



Discover specific strategies and concepts articles

Filter a strategy to match your specific needs and criteria, such as by cost, technology or collaboration





Browse a list of categories

Browse the categories below to find related strategies and concepts and dive into an area of TSMO topics





Agency Collaboration & Coordination



Automated & Connected Vehicles



Managing Transportation Demand



Operations & Supporting Infrastructure



Providing online interactive advanced transportation training and education

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**Washington State
Department of Transportation**

CITE has partnered with Washington State DOT to make TSMO content available online for free to transportation industry professionals. The content was initially developed and presented at the [Operations Academy Senior Management Program](#) and the original [Regional Operations Forums](#) but has been updated and modified to meet the needs of Washington State DOT and transportation agencies throughout the US.

The courses that are currently available for free are shown below. Click on each one to find out more information including: Description, Objectives and Outline. Participants self-enroll in each of these courses. [Self-enrollment Instructions](#).

- [CMM: Assessing Agency Capabilities](#)
- [Communicating the Value of TSMO](#)
- [Integrating TSMO into Your Agency](#)
- [Managing a Corridor](#)
- [TSMO 101: What is this TSMO Thing Anyway](#)

[Click here](#) for instructions on how to self-enroll in these **FREE** courses.

QUESTIONS?