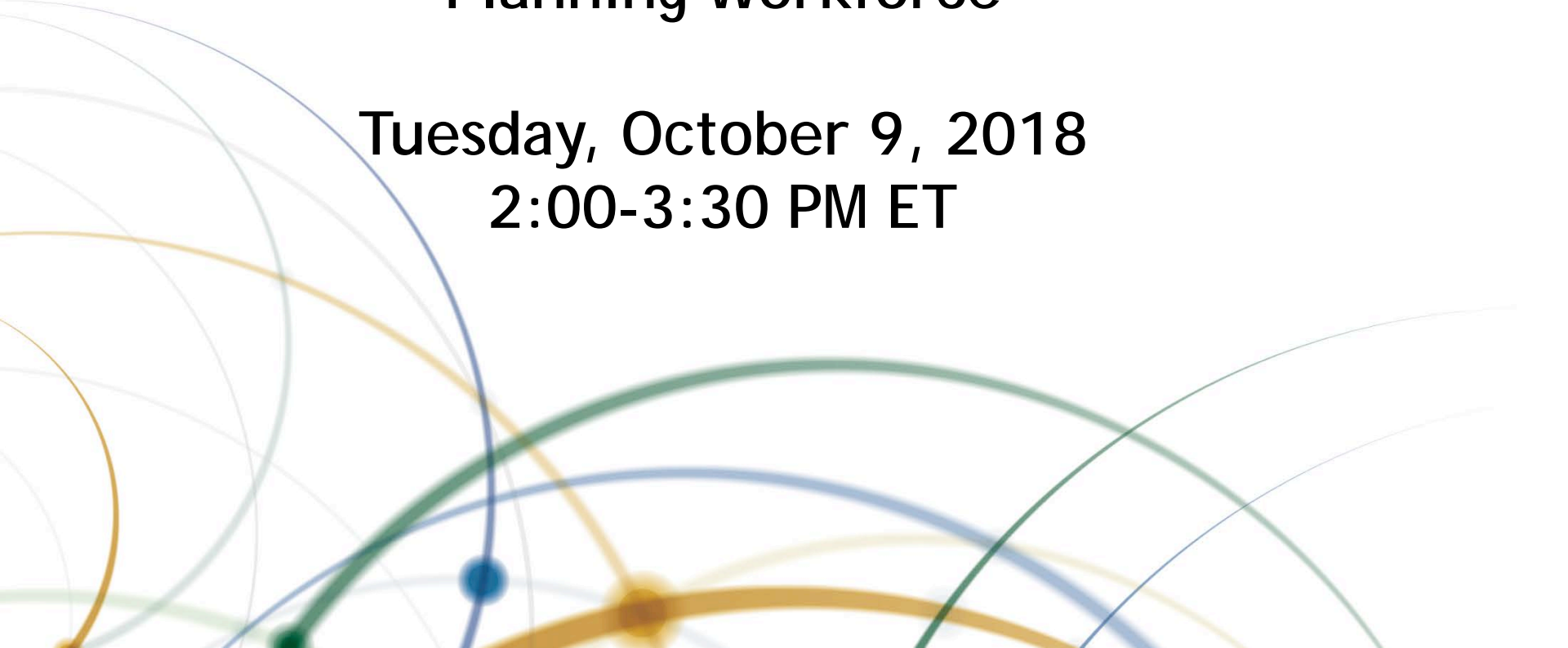


TRANSPORTATION RESEARCH BOARD

# Building a Twenty-First Century Transportation Planning Workforce

Tuesday, October 9, 2018  
2:00-3:30 PM ET



***The Transportation Research Board has met the standards and requirements of the Registered Continuing Education Providers Program. Credit earned on completion of this program will be reported to RCEP. A certificate of completion will be issued to participants that have registered and attended the entire session. As such, it does not include content that may be deemed or construed to be an approval or endorsement by RCEP.***



**REGISTERED CONTINUING EDUCATION PROGRAM**




## Purpose

Discuss the challenges transportation agencies have with attracting, developing, training, developing and retaining the planning workforce for the twenty-first century.

## Learning Objectives

At the end of this webinar, you will be able to:

- Identify strategies for attracting, developing, and retaining the future transportation planning workforce
  - Apply ideas to their agencies
- 

# About this Webinar

- Sponsored by the Standing Committee on Statewide Multimodal Transportation Planning (ADA10)
- Based on 2018 Annual Meeting poster session, “Fresh Ideas in Statewide Multimodal Planning: Bridging the Gap for 21<sup>st</sup> Century Transportation Planners and Their Employers”
- NCHRP Report 798, The Role of Planning in a 21st Century State Department of Transportation Supporting Strategic Decision Making



# Affordable Education through Academic- Employer Partnerships

Team Members: California Department of Transportation  
Brigitte Driller, Jelani Young, Danny Uppal, Jazmine Harris,  
Rebecca Parker, Dustin Foster, Diane Falls

# What Do Planners Do?

What do you think Planners do?

Respond at [PollEv.com/dotp2017](https://PollEv.com/dotp2017)

Text **DOTP2017** to **22333** once to join, then text your message



# Planners Could Work On...

- Autonomous vehicles
- High speed rail
- Bike and pedestrian infrastructure
- Transit
- Complete streets
- Freight
- Aeronautics
- Drones
- Ride-sharing
- ADA accessibility
- Regional planning
- System planning
- Intelligent Transportation Systems
- Native American liaisons
- Electric vehicles
- Climate change
- Park and ride
- Sustainable communities
- *and more....*

# Context

- Millennials are the most educated generation in history: nearly half of 25 to 34-year-olds have a postsecondary degree
- Americans hold over \$1 trillion in student loan debt; where 25% of millennials owe more than \$30,000
- Cost of a master's degree typically ranges from \$30,000 to \$120,000
- Challenge: how does Caltrans develop, attract, and retain a skilled planning workforce to meet future needs?



# Solution

- Provide affordable, flexible, and relevant educational opportunities to working professionals
- Partnership
  - California Department of Transportation
  - Mineta Transportation Institute at San Jose State University

# History & Structure

- Created in 1996 with funding from MTI's USDOT University Transportation Center (UTC) grant and Caltrans match funding
- Housed within SJSU's Lucas Graduate School of Business
  - Graduate programs are fully accredited by the Western Association of Schools and Colleges and the Association to Advance Collegiate Schools of Business

# Programs

- Master of Science in Transportation Management (MSTM)
- Three Graduate certificates
  - High-speed rail management
  - Transportation management
  - Transportation security



# Curriculum

- Emphasis on skills and content needed for effective transportation agency management
  - Transportation policy, planning, and systems development
  - State and federal policies that govern transportation organizations
  - Principles of leadership
  - Conceptual tools for analyzing management issues
  - Tools for effective written and oral communication skills
- Instructors
  - Caltrans and MTI
  - Executive staff and alumni

# How It Works

- Time
  - Allows staff to earn Master's degree while working full time in roughly two years; certificate in one year
  - Typically one to two courses at a time, one night per week, with classes offered in four sessions a year
  - Classes delivered via live video conferencing; students can participate from 12 Caltrans district offices and various transit agencies around the state
- Cost
  - Master's degree costs \$11,490
  - Students can reduce cost of program by up nearly 50%
    - Fellowships
    - Tuition reimbursement program by Caltrans/other partnering employers

# Benefits

- Attracts young employees
- Trains existing employees
- Improves workplace retention
- Creates networking opportunities
- Provides important cost savings to employees

# Benefits

- Based on informal internal survey
  - 72 Caltrans employees have graduated from the MSTM program
  - 25 Caltrans employees have earned a graduate certificate





# Resources Required

- Conference room with screen and projector
- Video conferencing technology
- Small scholarship fund if possible





# Additional Caltrans Initiatives

- **Planning Horizons:** monthly educational forum that highlights emerging trends in transportation arena. Speakers selected from both within Caltrans and the planning community.  
[www.dot.ca.gov/hq/tpp/offices/owd/horizons.html](http://www.dot.ca.gov/hq/tpp/offices/owd/horizons.html)
- **Transportation Planning Basic Academy:** provides students with broad knowledge of different core functions of transportation planning and modal programs, to give them a better understanding of the interrelation of functions, budgetary concerns, and trends and issues.  
<https://transplanning.onramp.dot.ca.gov/transportation-planning-academy-0>
- **Transportation Planning Field Academy:** provides students with hands on experience in different modes of transportation to give them a better understanding of multimodal, integrated, and sustainable transportation. <https://transplanning.onramp.dot.ca.gov/oakland-2015-field-academy>

# Additional Resources

- Caltrans careers: <http://dot.ca.gov/jobs/vacancy.html>
- Mineta Transportation Institute (MTI): [www.transweb.sjsu.edu](http://www.transweb.sjsu.edu)
- American Planning Association (APA):  
<https://www.planning.org/>
- American Institute of Certified Planners (AICP):  
<https://www.planning.org/aicp/>

## Affordable Education through Academic-Employer Partnerships



**Transportation Planning Field Academy:** The Field Academy provides students with hands on experience in different modes of transportation to give them a better understanding of multimodal, integrated, and sustainable transportation. <https://transportplanning.onramp.dot.ca.gov/oakland-2018-field-academy>

# For more information

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Workforce Development Branch  
Transportation Planning Division  
California Department of Transportation  
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Sacramento, CA 95814  
(916) 651-8203  
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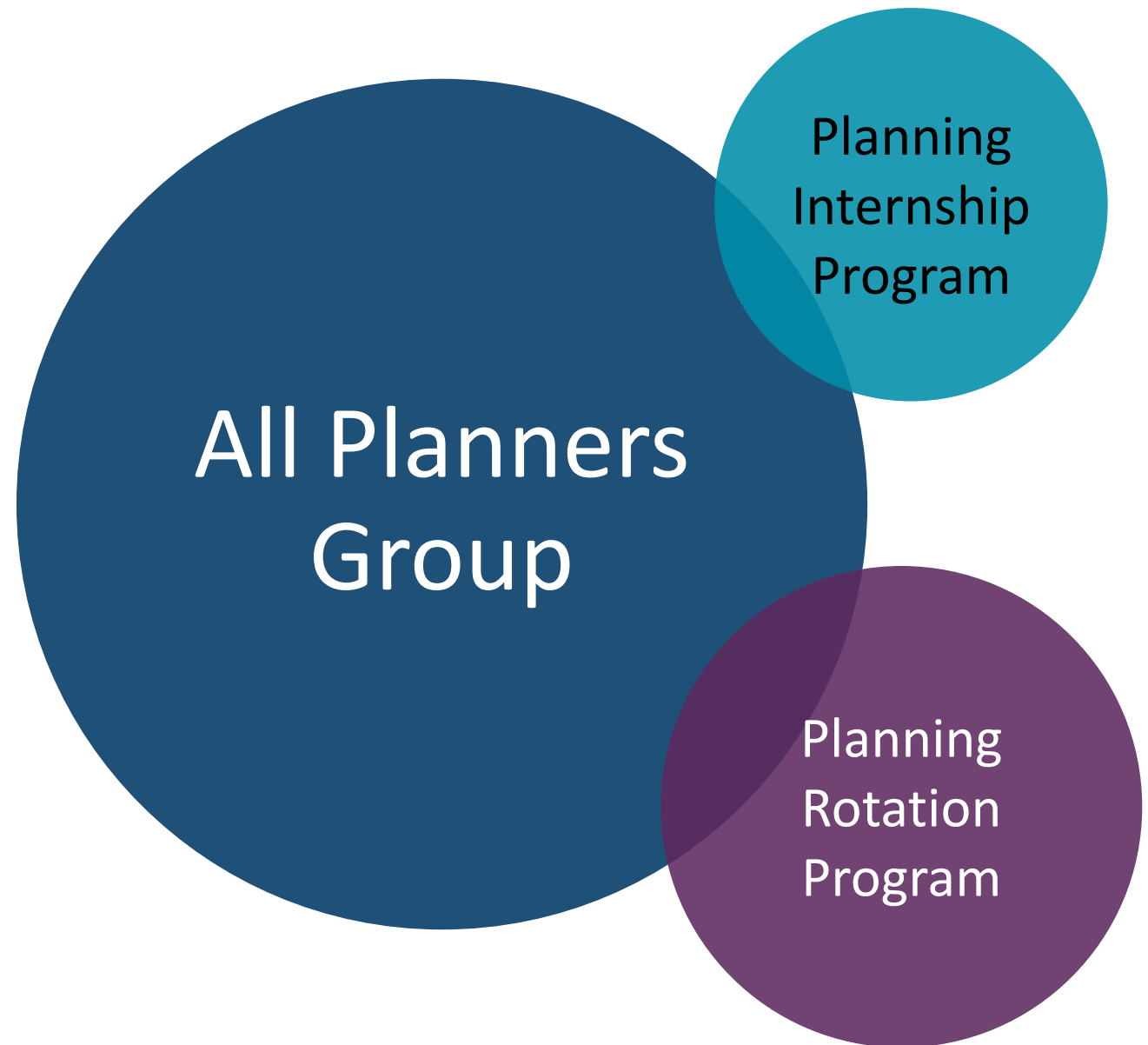
# Supporting the next generation of planners

Siri Simons | Senior Planner

Minnesota Department of Transportation

October 8, 2018

# Professional development activities for planners at MnDOT



# MnDOT Overview

## More than Highways

**1956** – Highway Dept. completes first segment of interstate hwy in MN

**1976** – MnDOT established

## Key Priorities Guide Our Efforts

Governor-appointed Commissioner leads agency

## We are a Diverse Agency

Nearly **5,000** employees

- Engineering Services - 385
- Modal Planning & Program Management - 205
- District employees – 3,200+

## Balancing Our Checkbook is a Big Task

**\$1 billion** annual budget

- Federal fuel tax, grants and federal aid (31%)
- State fuel tax (30%)
- Other (vehicle registration, MVST)

What are our goals?

- Continuing education and training
- Communication
- Promote teamwork





# How does it work?

## Web meetings (bi-monthly)

- Planners and partners present work, share lessons learned, and solicit feedback
  - Skype option facilitates statewide participation



# How does it work?

## Trainings (4-6 annually)

- Topics are identified by a working group comprised of planning staff from different parts of the agency and include a mix of technical and informational items.
- Past trainings focused on new public engagement tools, transportation finance, highway planning and programming, analysis using Excel, ADA document accessibility and GIS.



### MnDOT Training Announcement

**Course Code:** SEMINAR      **Locator:** 0000235843  
**Course Name:** PROJECT SCOPING TRAINING  
**Office Sponsor:** Transportation System Management

**Description:** This training will provide an overview of the scoping process in various Districts throughout the state. Participants will then break into small groups for a mock scoping exercise.

**Audience:** The audience for this training is anyone interested learning more about in project scoping. This may include but is not limited to District planning and engagement staff, CO planning and public engagement staff, and any other staff who either scope projects or affect the project scoping process.

**Details:**

<u>Start Date</u>	<u>End Date</u>	<u>Start Time</u>	<u>End Time</u>	<u>Location</u>
04/11/2018	04/11/2018	09:00	12:00	D3 St. Cloud MnDOT Conference Center 3725 12th Street North Room: Lewis North St. Cloud MN 56303

**Objectives:**

1. Increase general understanding of project scoping process. This course will help participants understand where processes are similar and where they are different
2. Gain experience working with the scoping process. By participating, you'll see how scoping fits into other requirements for projects at MnDOT.
3. Learn best practices. Participants will have the opportunity to learn from each other about scoping processes throughout the state.

**Registration Procedure:** Contact your office/district [Training Representative](#) to register for this class.

Supervisory approval must be obtained.

# How does it work?

## Annual Workshop

- This all-day, in-person workshop encourages deeper discussion and learning. Sessions focus on cross-cutting topics like public engagement, equity and identifying training needs for planning staff.
- The workshop also helps develop relationships among MnDOT planning staff and with staff from partner organizations.



Planners show off their “Planning Awards.” The awards are announce and distributed at the annual workshop. Award categories include: innovation, technical rigor and outreach.

# Planning Rotation Program

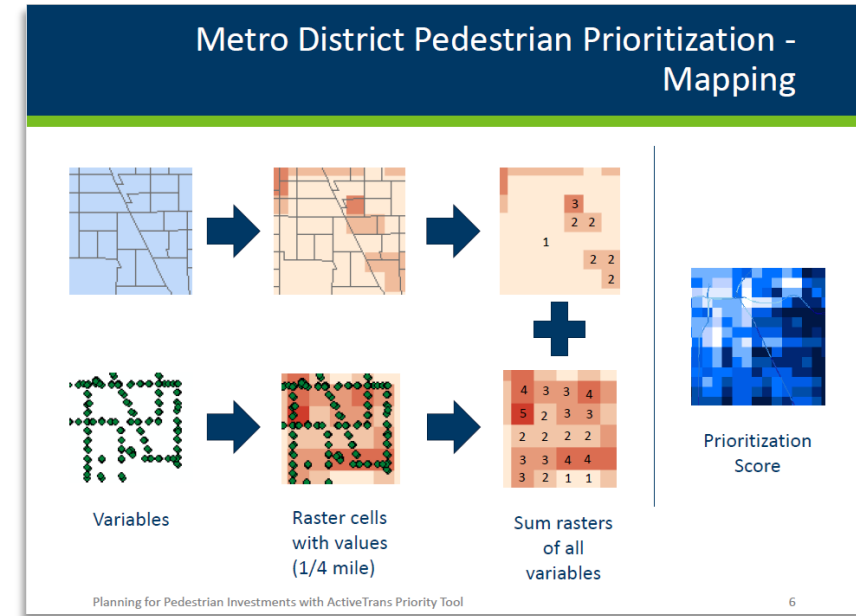
What are our goals?

- Allow staff to rotate to a planning position in a different office or district
- Expand participants' knowledge and skills
- Helps non-planning staff transition into planning



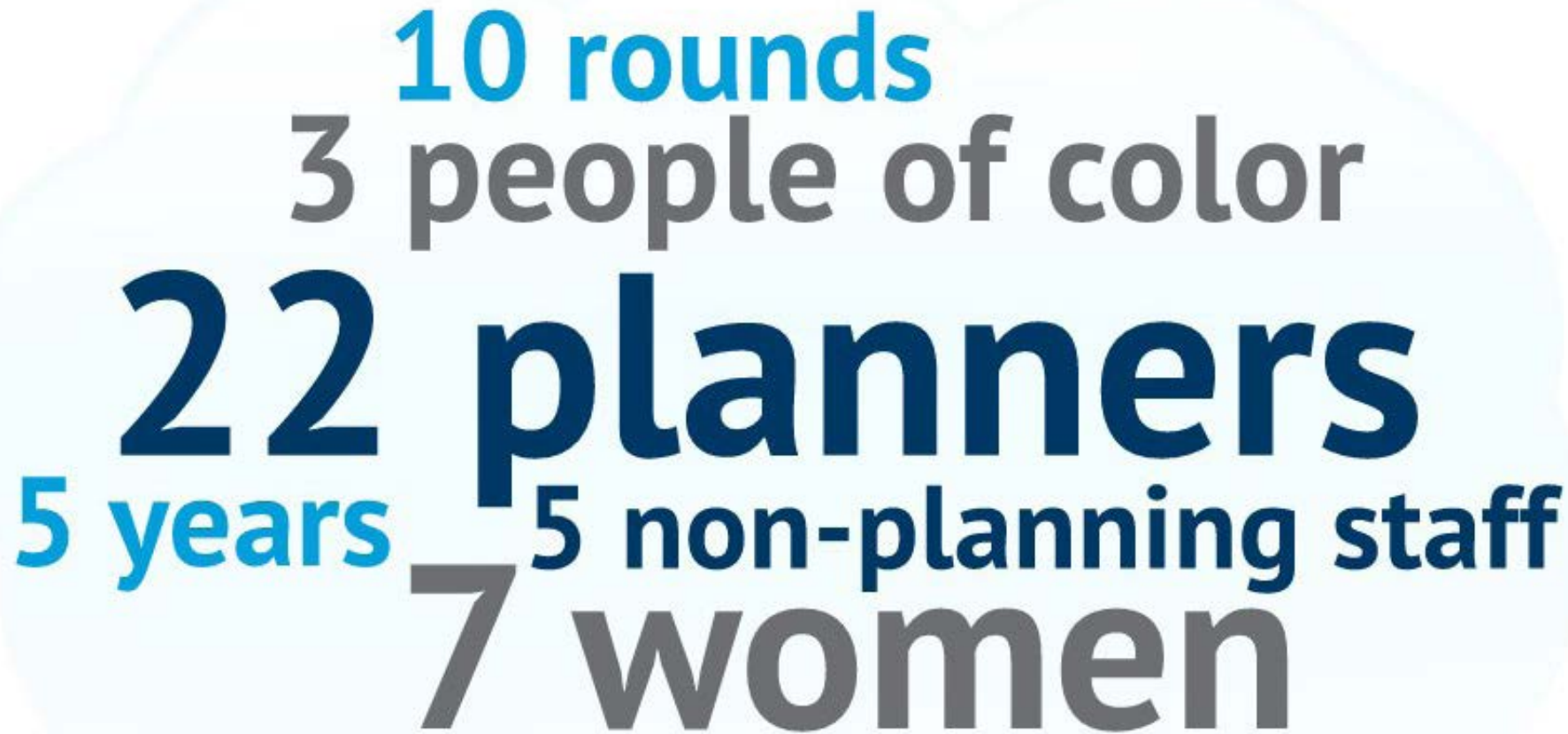
# How does it work?

- Open to all staff who have been employed at the agency for a year or more
- Full time (40 hrs/wk) and part time (20 hrs/wk) rotation options are available
- 6-month, 9-month, or one year rotations
- Two sessions annually
- Staff are matched based on a variety of factors, including experience and position preferences



While on rotation from MnDOT's Central Office, Erik Baxstrom conducted an analysis to prioritize where pedestrian facilities should be located. His use of the ActiveTrans Priority Tool enhanced Erik's professional skills and added capacity the Metro District would not have otherwise had to complete the project.

# Rotation Program Outcomes

A word cloud with a light blue, cloud-like background. The text is arranged in a central cluster. The word 'planners' is the largest and most prominent, in dark blue. Other words include '10 rounds' in light blue, '3 people of color' in grey, '22' in dark blue, '5 years' in light blue, '5 non-planning staff' in dark blue, '7' in grey, and 'women' in grey.

10 rounds  
3 people of color  
22 planners  
5 years 5 non-planning staff  
7 women

# Planning Internship Program

- Develop a diverse pool of professionals with experience in state-level transportation planning
- Exposes MnDOT to new talent in the transportation planning field





# How does it work?

- Internship coordinator solicits position descriptions from offices every fall.
- Positions are posted in the winter. Recruitment activities target women and people of color.
- Interns are paid \$19.34/hr out of their host office's budget to work full time for 12 weeks over the summer.
- In addition to day to day work, the internship includes tours of transportation facilities, training related to key skills and social activities.





# Planning Internship Program Outcome

- Since 2014, 21 interns have participated in the program, including 8 women and 10 people of color.
- Several participants have become student workers or full time planners with our agency.



Thank you again!

**Siri Simons**

*siri.simons@state.mn.us*

651-366-4834

# Freight Academy: Building Public Sector Agency Understanding of Goods Movement Through Immersion in the Private Sector Supply Chain

Building a 21st Century Transportation Planning Workforce

TRB Webinar Presentation

Marygrace Parker, I-95 Corridor Coalition



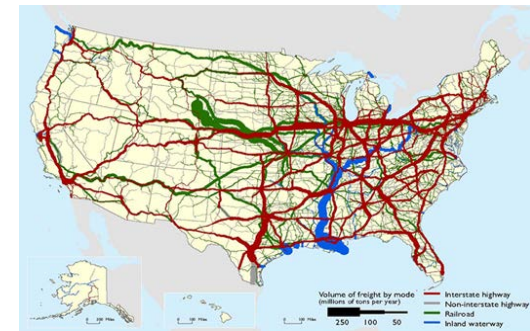
# Today's Presentation

- The Impetus for Public Sector Freight Training
- Freight Academy Program Concept and Goals
- Freight Academy Program Approach and Format
- Freight Academy – Principles for Success and Growth



# Impetus for Public Sector Freight Training

- Freight movement continues to grow and dynamic changes continue to occur and impact the goods movement industry
- Need to understand freight as integral part of transportation industry *and* national/regional/local economies
  - Increasing need to align freight policies and operations with community goals
  - To guide investment decisions for freight related projects
- Need to train mid-level transportation staff as experienced staff retire
  - Transportation Agency staff often serving cross-section of programs
    - Planners often must be “multi-modal”
    - Operations’ staff decisions impact freight mobility
  - Experience is often from “on the job” or “by fire”



(Image source: FHWA –HOFM “Status of the Nation's Highways, Bridges, and Transit Conditions and Performance: 23rd Edition: Part III: Highway Freight Transportation - Report to Congress”; Exhibit 11-3 “Tonnage on Highways, Railroads, and Waterways, 2014”)

# Impetus for Public Sector Freight Training

21<sup>st</sup> Century Workforce faces continued emphasis on addressing freight (i.e., for economic development) and continuing evolution of federal requirements for freight plans:

- 2012 - Moving Ahead for Progress in the 21st Century Act (MAP-21). directs the Secretary of Transportation to **encourage** each State to develop a comprehensive State Freight Plan that outlines immediate and long-range plans for freight-related transportation investments.\*
- 2016 FAST Act: “Each State that **receives funding** under section 167 of title 23 **shall** develop a freight plan that provides a comprehensive plan for the immediate and long-range planning activities and investments of the State with respect to freight.”\*\*

\* “Interim Guidance on State Freight Plans and State Freight Advisory Committees”, published in Federal Register, 10-15-2012

\*\* “Guidance on State Freight Plans and State Freight Advisory Committees”, published in Federal Register, 10-14-2016

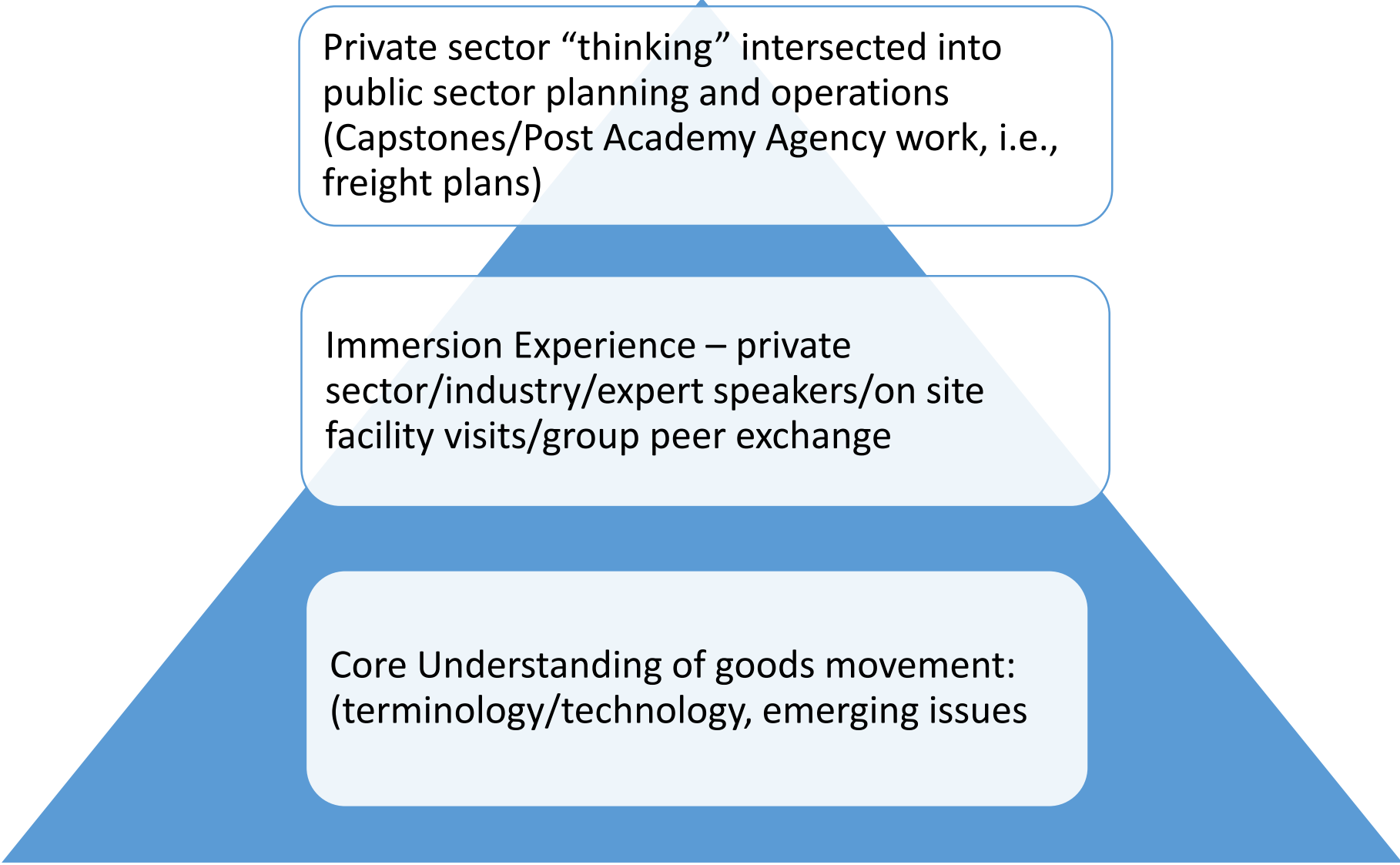


# Freight Academy Professional Development Concept

- Intended for Professional Development of current public sector agency staff whose work may impact freight
  - Multi-Disciplinary, multi-agency,
    - Planning, Operations, Policy, Economic Development...
- Designed to build on FHWA/NHI Freight Professional Development programs and others
  - Undergraduate, graduate, executive
- National program
  - Attendees from across US (and Canada)



# Freight Academy Goals



Private sector “thinking” intersected into public sector planning and operations  
(Capstones/Post Academy Agency work, i.e., freight plans)

Immersion Experience – private sector/industry/expert speakers/on site facility visits/group peer exchange

Core Understanding of goods movement:  
(terminology/technology, emerging issues)



# Freight Academy Approach

- Create an intensive, interdisciplinary, team-based learning environment:
  - Participants from various transportation related entities - USDOT agencies, State DOTs, MPOs, Economic Development, etc.
  - Participants represent diverse programs - multi-modal planning, operations, government affairs, policy
  - Private Sector Presenters provide “real world” & “current” perspectives on issues/needs.
  - Field trip facilities allow attendees to experience diverse examples and support interaction between hosts and tour group
  - “Boot Camp Pace”



# Freight Academy Immersion Program Format

- Pre-Immersion Work
  - Develop a Regional Freight Profile
- Six Day Immersion Course
  - Covers shippers/freight system customers and all elements involved in goods movement
  - Field visits with active assignments
- Complete/Present Capstone Project in teams
  - Critical and emerging freight topics:
    - e.g., multi-modal issues (highway, rail, water), economic development, truck parking, e-commerce, land use, significant event response



# Freight Academy Immersion Program Format: Capstone Projects

- Apply knowledge gained and expand experience with situations likely to arise for public agency to address freight issues
  - Hypothetical but “real world”
- Build team and leadership skills, leverage participant skills and create long term peer relations
- Teams Complete 10-page report and Executive-level briefing power point
- Capstone Group Presentation and Q&A to “expert” public/private sector panel, with feedback





# Freight Academy - Principles for Success: Building a Workforce

- Effective workforce skill set building requires participants and agencies to be committed to the program
  - Agencies consider candidate selection thoughtfully -
    - Select “the eager”
  - Agencies/supervisors understand need for participants to be fully engaged
  - Provide workforce opportunities
    - State and Federal agencies provide funding for training for staff
    - I-95 Corridor Coalition, AASHTO, UMD-NTC have provided Freight Academy scholarships
- Programs have core curriculums but also evolve with industry trends
- Dynamic, engaging, expert instructors crucial to success
- Field visits integral and must be relevant, in depth, instructional
  - Not “drive by”...
- Incorporate a unique experience in training programs
  - Insure diverse, innovative topics and learning, *and in there, a little fun!*



# Freight Academy Principles for Success

- Build in opportunities for participants to network
  - Meals together/with presenters, bus trips to field visits, keynote dinner
- Recognize Participation
  - Certificates of completion, AICP and CEU credits
- Solicit and incorporate feedback from participants
  - Each program shaped in part by feedback from prior groups' evaluations
- Maintain “listserv” for graduates for continued peer exchange, share public sector professional opportunities

*“I have not found another training opportunity that matches the depth and relevance of the I-95 Corridor Coalition’s Freight Academy. The week-long course is comprehensive, without being overwhelming. I appreciated that the curriculum covered all modes of freight and found the format to be the perfect balance between site visits and classroom-style presentations. Additionally, the capstone project offered an opportunity to further develop my understanding of freight with a group of my peers from around the country. The Freight Academy exceeded all my expectations and I highly recommend it to any public sector official that wants to learn more about the freight industry.”*

*Bradley Smith, Director, Office of Freight and Multimodalism, Maryland DOT*

# Freight Academy Principles of Success

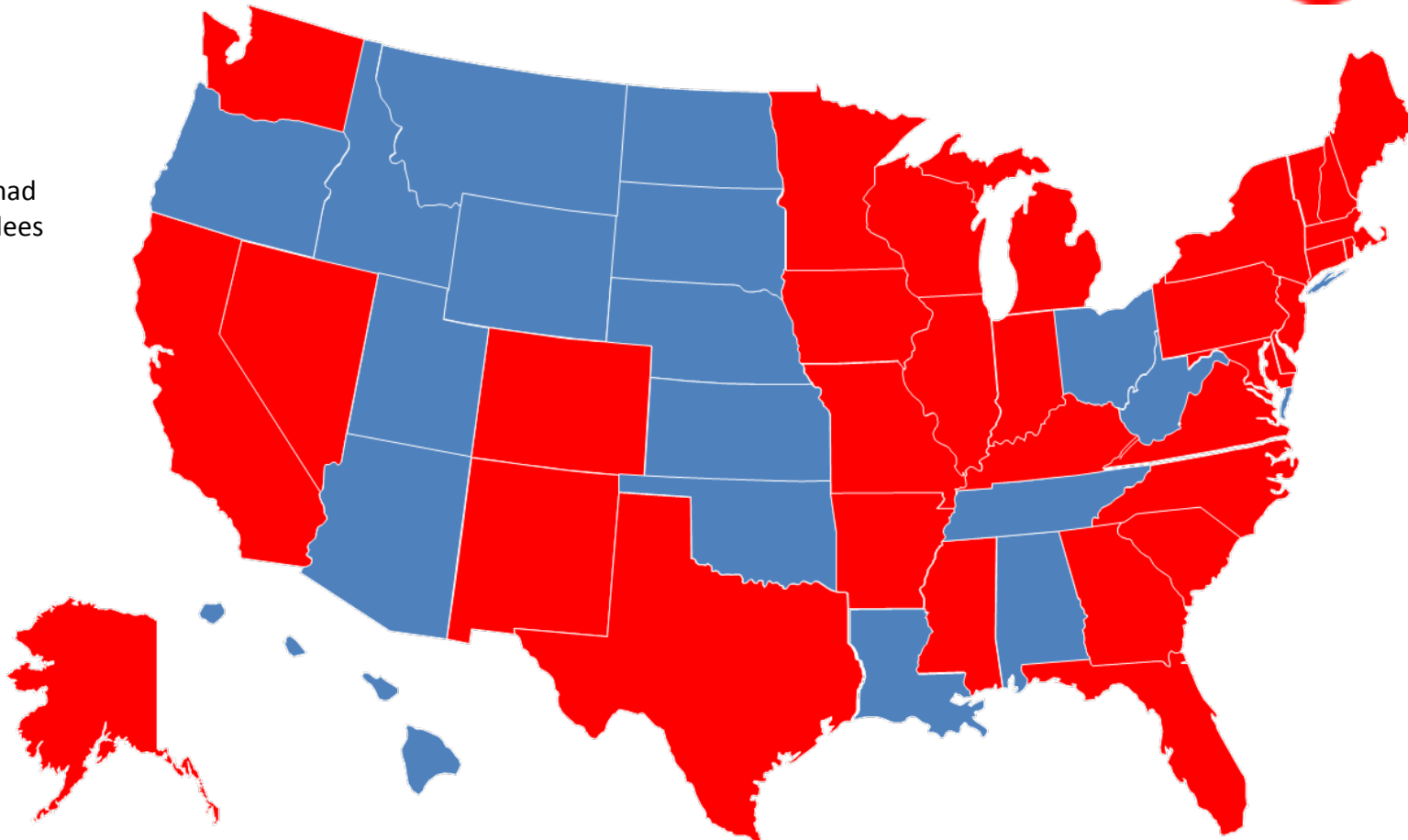
## “If we build it *right*, they will come”

179 graduates from six bi-annual program offerings

Quebec and New Brunswick

Note: Some agencies have had multiple attendees

Multiple Federal, Metropolitan Planning, Economic Development, and other agencies represented nationally and in DC – including DCDOT, USDOT (FHWA, FMCSA, FTA, MARAD), US Coast Guard



# Thank You!

***Next Freight Academy: March 31 – April 5, 2019***

***Applications now being accepted: go to <https://freightacademy.org/>***

Marygrace Parker

Director, Freight and Innovation in Transportation

Program Manager – Freight Academy

I-95 Corridor Coalition

[mgparker@i95coalition.org](mailto:mgparker@i95coalition.org)