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.
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 21st 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
- 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](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](https://transplanning.onramp.dot.ca.gov/oakland-2015-field-academy)
Additional Resources

- **Caltrans careers**: [http://dot.ca.gov/jobs/vacancy.html](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/](https://www.planning.org/)
- **American Institute of Certified Planners (AICP)**: [https://www.planning.org/aicp/](https://www.planning.org/aicp/)
Affordable Education through Academic-Employer Partnerships

The Storyboard

Take a look into the mirror. Where do you see yourself now and in the future? Do you need to increase your education, and be part of a diverse collaborative team?

The California Department of Transportation (Caltrans) in partnership with Minerva Transportation Institute (MTI) can help you further your education, conveniently and economically. Caltrans partnered with MTI to offer courses afterhours at the workplace, utilizing executive staff and alumni to teach the programs and offer exciting career opportunities upon completion of the program.

Students greatly benefit from the low cost of the program, which is further reduced by MTI scholarships, and partnering employers offer tuition reimbursement bringing the cost down even further. Graduates represent various transportation agencies including: Amtrak, Caltrans, Santa Clara Valley Transportation Authority, City of Porterville’s Public Transit System and more.

A Transportation career includes working on:
- Autonomous vehicles
- High Speed Rail
- Bike and Pedestrian Infrastructure
- Transit
- Complete Streets
- Freight
- Rail
- Rail-sharing
- Cultural Diversity
- ADA Accessibility
- Regional Planning
- System Planning
- Intelligent Transportation Systems
- Native American Liaison
- Climate Change
- Park and Ride
- Sustainable Communities

You Can Afford It!

Affordable Education through Academic-Employer Partnerships

Resources

For more information on Caltrans career opportunities, https://www.cdot.ca.gov/employment/
For more information

Ms. Diane Falls
Workforce Development Branch
Transportation Planning Division
California Department of Transportation
1120 N Street, MS-32
Sacramento, CA 95814
(916) 651-8203
Diane.Falls@dot.ca.gov
Supporting the next generation of planners

Siri Simons | Senior Planner
Minnesota Department of Transportation
October 8, 2018
Professional development activities for planners at MnDOT
Nearly 5,000 employees • Engineering Services - 385 • Modal Planning & Program Management - 205 • District employees – 3,200+

1956 – Highway Dept. completes first segment of interstate hwy in MN
1976 – MnDOT established

Governor-appointed Commissioner leads agency

More than Highways

We are a Diverse Agency

Key Priorities Guide Our Efforts

Balancing Our Checkbook is a Big Task

Nearly 5,000 employees
• Engineering Services - 385
• Modal Planning & Program Management - 205
• District employees – 3,200+

$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
Web meetings (bi-monthly)

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

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”

Impetus for Public Sector Freight Training

21st 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.”** **

** “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

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