

Promoting Careers in Freight Transportation

Moderated by:

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Texas A&M Transportation Institute

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Transportation Research Board

Today's Speakers

- Nicholas Kehoe – Toxcel
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- Leslie McCarthy – Villanova University
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- Eric Dryden – The Urban Assembly School for Global Commerce
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- Marygrace Parker – I-95 Corridor Coalition/Freight Academy
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Mentoring Program

TRANSPORTATION RESEARCH BOARD

YOUNG MEMBERS COUNCIL

FREIGHT AND MARINE GROUP

Agenda

- Introduction to the YMC
- Overview of the Mentoring Program
- Recent Mentoring Program Activities
- How to Get Involved

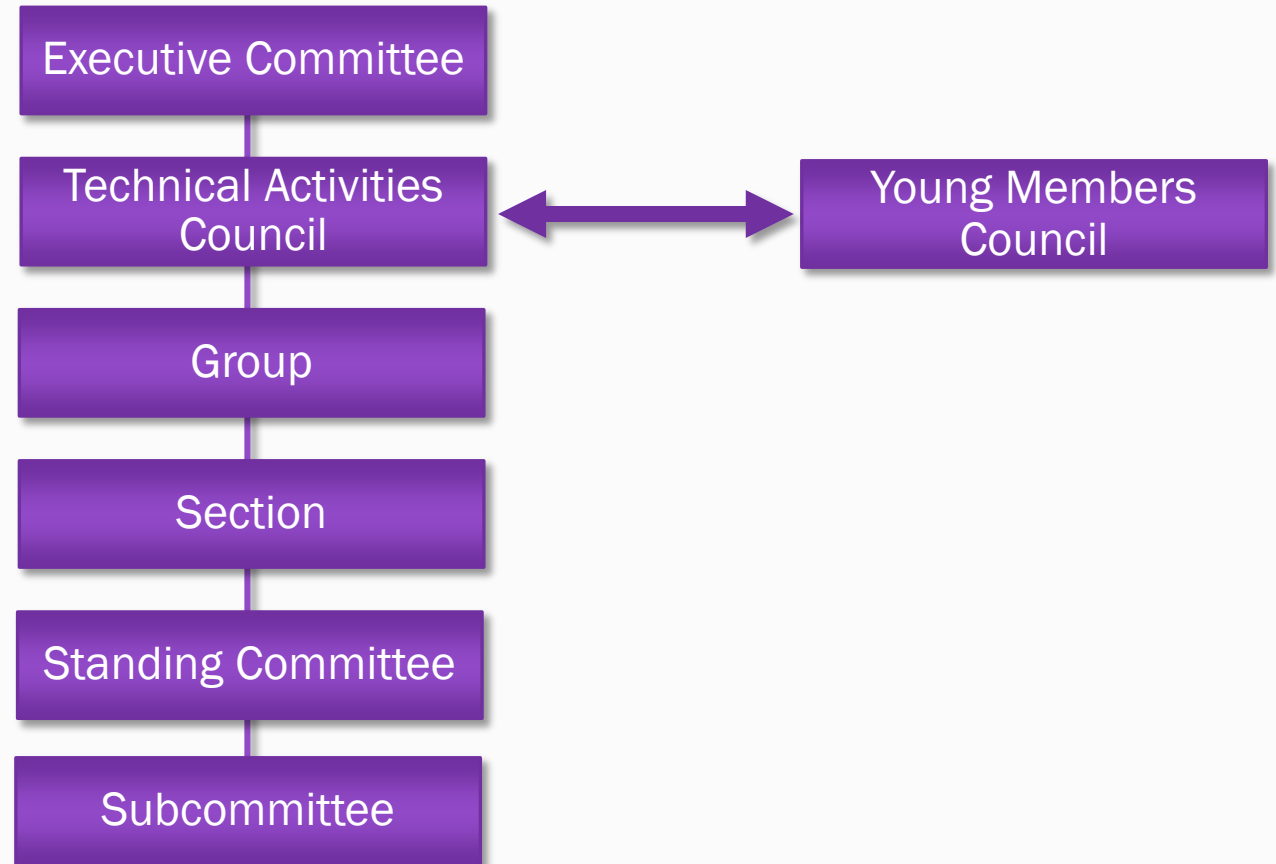
Introduction

Young Members Council

- Formed in 2011
- Serves at the TAC level
- Focuses on young professionals (i.e., 35 and younger)

Goals

- Involvement
- Resources
- Connection
- Representation



Generalized TRB Hierarchy

Introduction

Freight and Marine Subcommittee

Technical Activities

- Poster Sessions
- Lecture Sessions

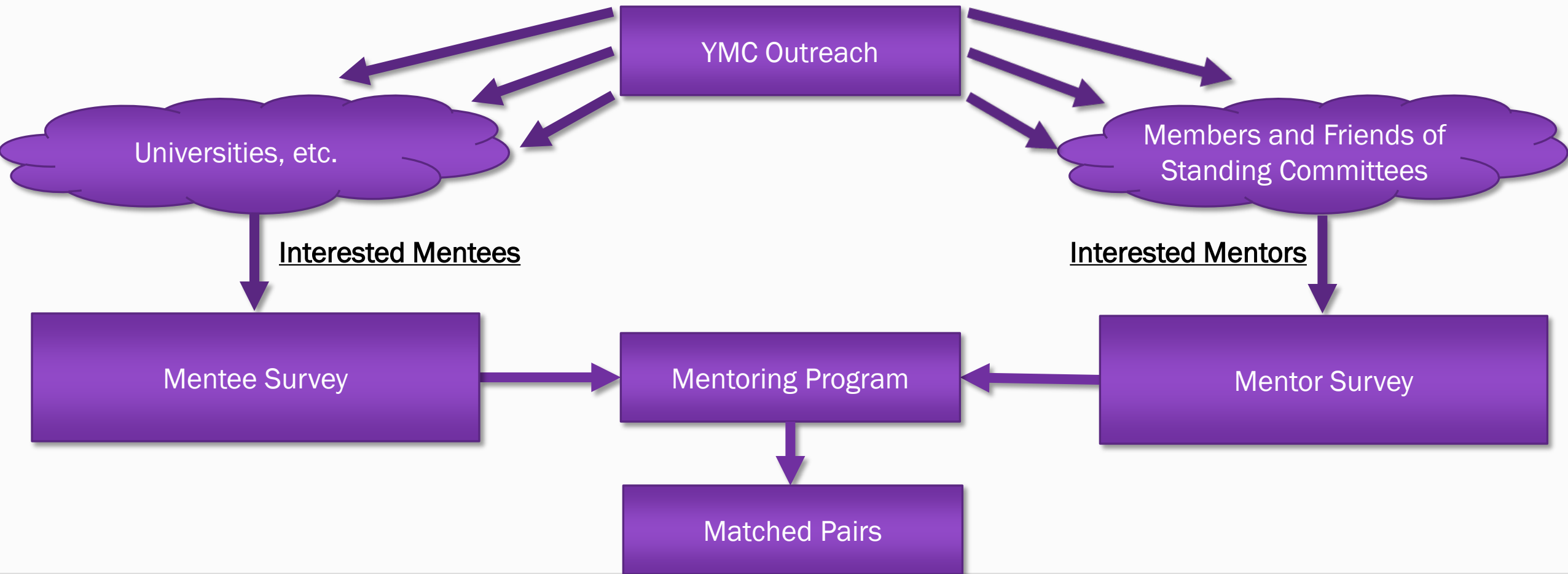
Mentoring Program

- In-person
- Remote

Mentoring Program

- Matches Young (under 35) or New Members with long-time annual meeting attendees
- Mentoring activities are varied and flexible
 - Career
 - TRB Committees
 - Introduction to TRB Annual Meeting
 - Local attractions

Mentoring Program



Mentoring Program

Recent Successes:

- Mentoring program growing each year
 - 34 participants in 2015
- Developed both formal and informal opportunities
- Positive responses from program participants

Mentoring Program

Planned Activities

- Recruitment
 - 2015 International Urban Freight Conference (I-NUF)
 - 2016 TRB Annual Meeting
 - Remote mentorship
- Enhancing mentor/mentee matches
- Increasing interest from the private sector

Mentoring Program

WHO CAN GET INVOLVED?

- Seasoned transportation professionals
- Young transportation professional
- First-time TRB attendees
- ... Anyone!

HOW TO GET INVOLVED?

- Contact the YMC Mentoring Program Chair

OPPORTUNITIES FOR PARTICIPATION

- Participating as a mentor or mentee
 - Formal
 - Informal
- Providing support on the Mentoring Program
- Other participation with the YMC

Contact Information

YMC Mentoring Program Chair

Nicholas Kehoe

Toxcel

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703 – 754 - 0248 (x207)

For more information, please visit:

Young Members Council webpage: <http://ymc.groupsite.com/>

The CTE Renaissance

Preparing the Next Generation of American Transportation and
Logistics Professionals





Mission Statement

By working closely with public and private partners, UASGC will provide opportunities for economic mobility through access to college and career pathways in the growing field of supply chain management and freight logistics, the backbone of global commerce. We educate students not just “for the occupation,” but “through the occupation,” integrating instruction of industry knowledge and skills throughout rigorous academic curricula. Through our extensive public and private partnerships, we create opportunities for students to participate in a growing and dynamic industry and ensure authentic student choice in post-secondary decisions, while providing significant social and emotional supports to ensure student success.



What is CTE?

Career and Technical Education (CTE) refers to high schools that provide a career preparatory curriculum with a focus on a specific industry.

- CTE Advisory Board populated by industry professionals and educators
- Classroom teachers with industry experience
- Work-based learning sequence including guest speakers, worksite visits, job shadowing, and internships
- 7+ CTE courses in the sequence culminating in industry-based assessment
- Careers in industries where young people can earn stackable credentials and move up the ladder
- Focus on emerging industries that are forecast to have employment opportunities for years and offer “deep resonance” for general education application
- Students are introduced to careers that require only professional certification *and also* careers that require bachelor’s degree
- Students of all academic skills and aptitudes are encouraged to attend
- Culmination in industry-based assessment that provides specialized certification

CTE Advisory Board



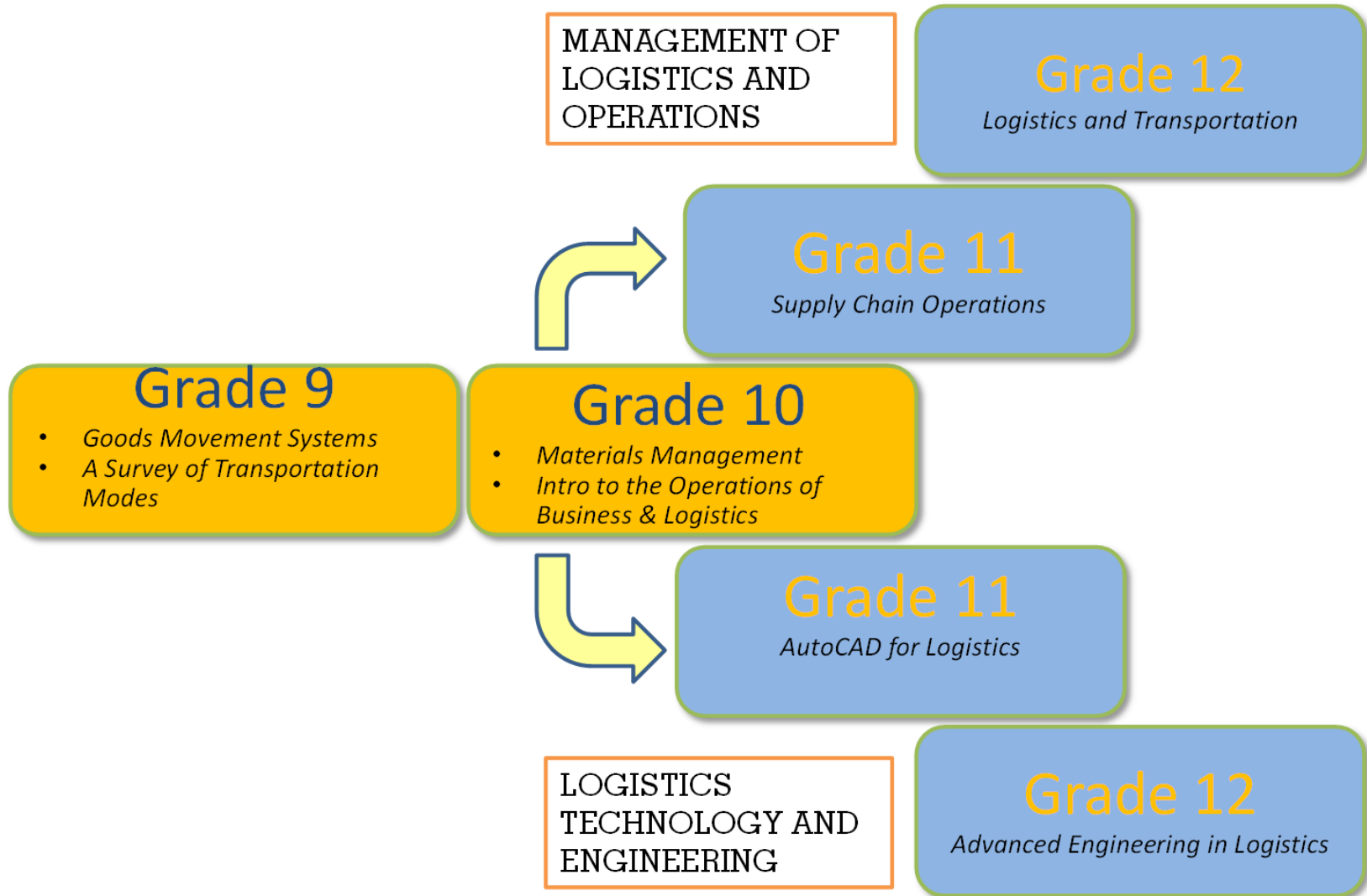
Our Students



	Total Population	Cohort 1	Cohort 2
Students	164	75 (45%)	89 (55%)
Female Students	77 (46%)	30 (39%)	47 (61%)
Male Students	87 (54%)	45 (52%)	42 (48%)
Special Services			
IEPs	44 (27%)	26 (35%)	18 (20%)
ESL	14 (9%)	7 (9%)	7 (8%)
Economic Data			
Free or Reduced Lunch	146 (89%)	68 (91%)	79 (89%)
8th Grade Attendance			
0-10 Absences	59 (36%)	28 (37%)	31 (35%)
11-20 Absences	41 (25%)	18 (24%)	23 (26%)
21 or More Absences	43 (26%)	20 (27%)	23 (26%)
Data Unavailable	21	10	11
8th Grade Math Levels			
Level 1	91 (55%)	46 (61%)	45 (50%)
Level 2	51 (31%)	25 (33%)	26 (29%)
Level 3	9 (5%)	3 (4%)	6 (7%)
Level 4	1 (1%)	0	1 (1%)
Data Unavailable	12	2	10
8th Grade Reading Levels			
Level 1	86 (52%)	47 (63%)	39 (44%)
Level 2	61 (37%)	22 (29%)	39 (44%)
Level 3	16 (10%)	7 (9%)	9 (10%)
Level 4	1 (1%)	0	1 (1%)



Four Year Sequence



Speaker Series



Port Authority



Duane Reade



NYC Economic Development Corporation

- Build relationships with professionals
- Hear personal career & college narratives
- Connect classroom materials with real-world scenarios
- Discuss typical challenges in the industry

Worksite Visits



CSX Yard in New Jersey



Hunt's Point Produce Market



Tour of NY Harbor

- See working professionals in action to learn about careers
- Apply classroom knowledge to professional world
- Generate interest in the industry being studied
- Help inform students about pathways and career options

Career Exploration and Networking



- Over 20 professionals visited the school to discuss their careers with students
- Students delivered personal elevator pitch, practiced shaking hands and engaging in conversation, and handed out business cards
- Participating students wrote follow up emails to professionals they met to build their network

Logistical Challenge

The UASGC Coat Drive

Community Service - Services volunteered by individuals or an organization to benefit a community or its institutions.

"The best way to find yourself is to lose yourself in the service of others."
—Mahatma Gandhi



Scenario

Every year the students at The Urban Assembly School for Global Commerce organize a coat drive to help the less fortunate through the cold winter. We have been collecting coats at our school and then donating them through a local charitable organization.

The program has been so successful that we want to start increasing the number of people that we serve. However, to do this we need more money to purchase more materials and warehousing space.

Luckily, a local philanthropic group whose goal is to help fund already existing charitable organizations is interested in donating money to our cause.

Before the foundation commits to our program, they would like to see a 20% increase in coat donations this year to prove to them that we are a well-established organization.

You and your group will create a plan to increase our number of donations this year that includes adding to the number of locations where people can donate coats, flyers that use different information to attract donations, and a presentation in which you explain why your plan is the best plan.

This is a competition. The team whose presentation is chosen as the best plan for increasing our donations will receive a grand prize.

The Three Challenges

1. Create a plan for where to collect donations and how to attract donors.



Donation Bin Plan

We need to increase the number of bins that we use to collect donations in order for our coat drive to increase our total received. The Coat Donation Board expects a well thought-out plan that includes an evaluation of several options and a recommendation for the plan for how to increase donations through more bins.

The Coat Donation Board has approved the funds for three additional bins. You must evaluate the potential sites that the city has approved for a donation bin, determine which locations would be optimal for additional sites, and create a plan for how you will dispatch your volunteers to collect the coats.

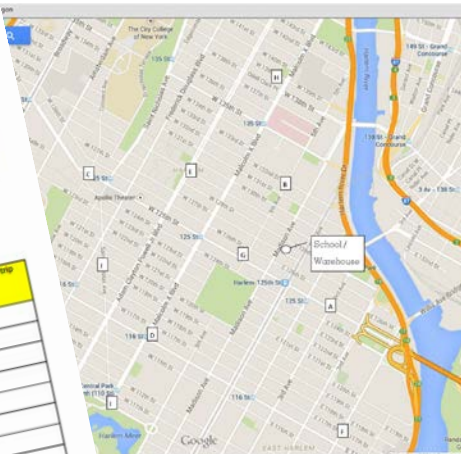
Here's what we already know:

- We can expect 1 coat donation for every 10 pedestrians who pass one of our donation boxes.
- Donation bins are considered trash cans on Sundays and are completely emptied by the Dept. of Sanitation.
- On the map, one centimeter equals 300 feet. You must measure distance to and from the warehouse using streets rather than straight lines.
- It takes about 1 minute for our volunteers to travel 250 feet.
- We have 5 volunteers for collecting donations and each donor can only work on Tuesday and Friday for a total of 2 hours a week.

Prospective Location	Pedestrians per hour	Coats per 24 hours	Distance of round trip from warehouse in cm	Distance of round trip from warehouse in feet	Time for round trip in minutes
A	35				
B	20				
C	50				
D	75				
E	60				
F	80				
G	50				
H	60				



UASGC teachers collaborated with our partners to create a project where students had to create a plan to increase the amount of coats donated in a fictional coat drive. Students had to evaluate pedestrian traffic, distance from warehouse to collection sites, and create marketing plans. They had to create a pitch and compete with other groups to demonstrate that they had the best plan.



College Experiences



Students at Rutgers Business School summer SCM institute



Arizona State University Business Scholars Initiative

- Build strong relationships with Supply Chain Management departments at universities
- Provide unique opportunities to meet faculty and participate in summer programs
- Demonstrate advanced knowledge of industry and create identity around the field

Job Shadowing & Internships



*Candidates for two internships at the NYC
Economic Development Corporation*



*Candidates for internship at the Port
Authority of NY & NJ*

- Practice using their professional skills and interacting with adults as peers in workplace
- Apply the knowledge and expertise they have built in their CTE classes
- Build personal network and, in some cases, earn their first paycheck

Challenges



- Career and Technical Education (CTE) still suffers from the stigma of former programs that were considered “dumping grounds” for struggling students. We must continue to educate families and guidance counselors about the benefits of CTE programs.
- Providing internship and job shadowing opportunities for all students is an intimidating challenge. We continue to do outreach to potential partners to ensure that every student has access to this culminating experience.
- Finding and retaining qualified instructors is difficult when we are unable to compensate candidates at the same levels as the private sector. We are working with the state to find creative solutions to this problem, including using our Advisory Board to bolster our teachers’ industry knowledge.
- We want to continue to meet employers who are looking for candidates like our students. We must create career pathways with local organizations in order to fulfill our goal of placing 100% of our graduates in college or a career.

TRB STANDING COMMITTEE ON URBAN FREIGHT TRANSPORTATION (AT025)


PROMOTING CAREERS IN FREIGHT: *UNIVERSITY PERSPECTIVE*

LESLIE MCCARTHY, PH.D., P.E.
ASSOCIATE PROFESSOR
CIVIL & ENVIRONMENTAL ENGINEERING



VILLANOVA
UNIVERSITY
IGNITE CHANGE. GO NOVA.

OUTLINE OF WEBINAR PRESENTATION

- ▶ Objective
 - ▶ Commitment from Academia
 - ▶ Curricular Strategies & Assessments
 - ▶ Curriculum Supplements
 - ▶ Internships and Career Paths
 - ▶ Closing Remarks
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OBJECTIVE

- ▶ To educate engineering students in recognizing and embracing the idea of freight as a vested user of our nation's transportation systems and infrastructure




Courtesy of North Dakota DOT

HOW TO GO ABOUT IT?

- One university's approach...



COMMITMENT FROM ACADEMIA

- ▶ **Need engagement from the College of Engineering**
 - ▶ Foster network of employers in freight-related sectors
 - ▶ Encourage student placement in internships
 - ▶ **Need support from the Department of Civil Engineering**
 - ▶ Latitude to incorporate freight issues into curriculum in a meaningful way
 - ▶ Sponsorship for freight-related field trips
- 

COMMITMENT FROM ACADEMIA

GET FACULTY EDUCATED!

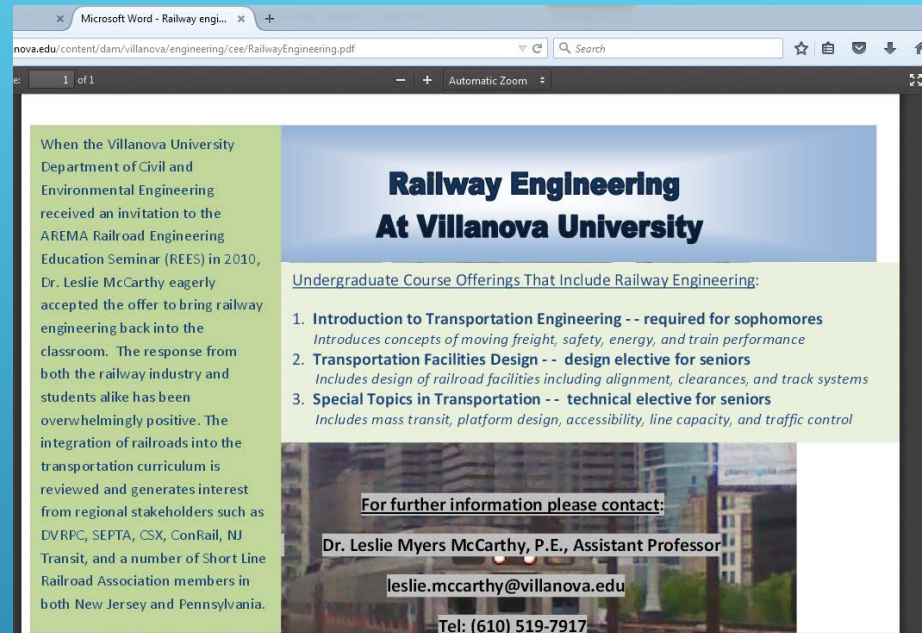
- ▶ Attend AREMA's Railway Engineering Education Seminar (REES)
- ▶ Participate in regional and national conferences related to freight
- ▶ Join committees that deal with freight issues




COMMITMENT FROM ACADEMIA

GET THE WORD OUT!

- ▶ Develop information sheets on elements of railroad engineering or freight in the undergraduate and graduate curriculum
- ▶ Assemble an external stakeholder advisory group
- ▶ Dialogue with other universities that are on the same track (pun intended!)



ENGAGING STAKEHOLDERS

- ▶ Served as Panelist and presented at American Public Transportation Association, 2013
 - ▶ *Session on Rail Engineering: What Are the Skills, Education, and Experience Our Industry Needs?*
 - ▶ New Jersey Shortline Railroad Association
 - ▶ Biannual presentation updates on VU's development of railway-related efforts at Quarterly meetings
 - ▶ Delaware Valley Regional Planning Commission (Philly MPO)
 - ▶ Attend quarterly Freight and Goods Movement Task Force meetings to help focus railway activities to regional needs/issues
 - ▶ Formalized (unpaid) internship with DVRPC Freight Planning Office for one VU senior each year to work on a freight-related planning project
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ENGAGING STAKEHOLDERS

Bl
To



The screenshot shows the website for AASHTOWare Pavement ME Design. The header features the logo on the left and the text 'AASHTO For state-of-the-art pavement design' on the right. A red navigation bar contains links: Downloads, Documents, XML Validator, Information, Report Bugs, Licensing, and Webinars. The main banner area has a dark background with a road and sun graphic, and the text 'Pavement ME Design 2.0 Released'. Below this, the section 'AASHTOWare Pavement ME Design' includes a red announcement about version 2.1 and a detailed paragraph about the software. A 'News' sidebar on the right highlights the 'ME Design 2.1 Released' news item.

AASHTOWare Pavement ME Design

Version 2.1 now available for download! Get the newest release notes [here](#).

AASHTOWare Pavement ME Design is the next generation of AASHTOWare® pavement design software, which builds upon the mechanistic-empirical pavement design guide, and expands and improves the features in the accompanying prototype computational software. ME Design supports AASHTO's Mechanistic-Empirical Pavement Design Guide, Interim Edition: A Manual of Practice. ME Design is a production-ready software tool to support the day-to-day pavement design functions of public and private pavement engineers.

News

[ME Design 2.1 Released](#)
Version 2.1 of ME Design has been released. It includes feature enhancements to backcalculation and a new automatic update feature. Available through the [Downloads page](#).

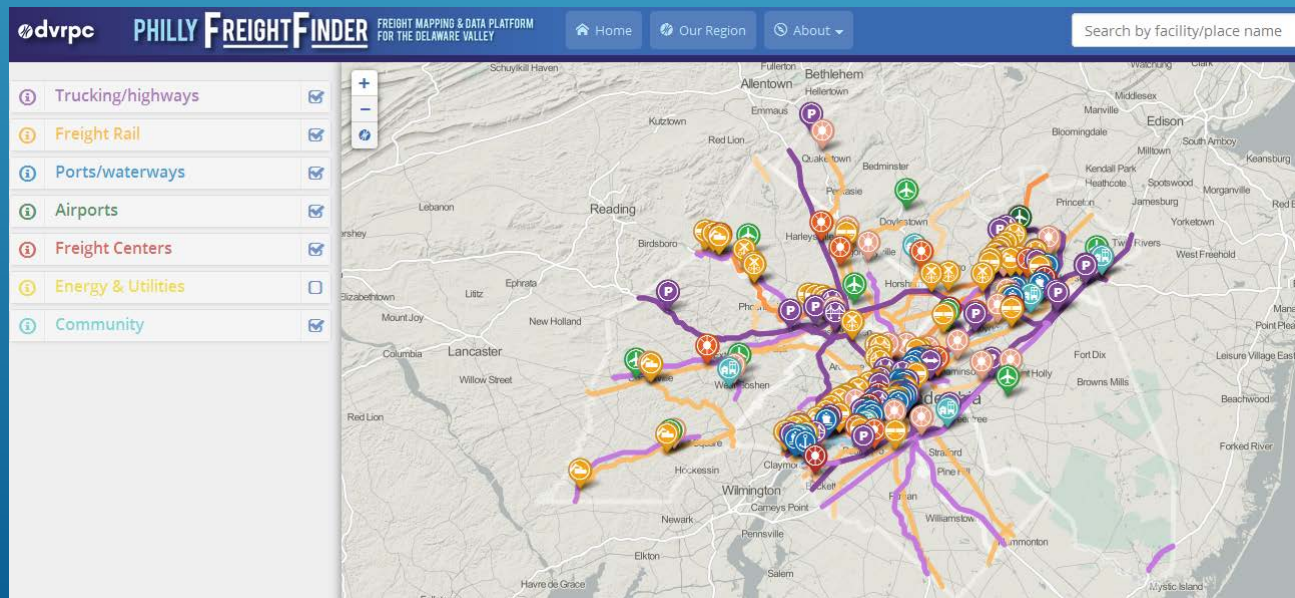
HOW CAN AASHTO PAVEMENT ME DESIGN HELP FREIGHT PLANNING?

- More accurately predict effects of truck loads on infrastructure
 - Temporary work zone detours or for designated routes
 - Assist in value pricing or other financing schemes e.g.: tolling
- ▶ Plan for more sustainable construction and maintenance of pavements in freight corridors
 - ▶ Avoid overdesign (**"too thick"**) by predicting distress over life of pavement in advance
- Evaluate long-term impacts of raising weight limit on highways

CURRICULAR STRATEGIES

REPETITION BREEDS RETENTION: Why Freight?

- ▶ Introduce concept of freight to students early on in their civil engineering education
- ▶ Follow up consistently throughout 4 years
- ▶ Get into detail with design and technology

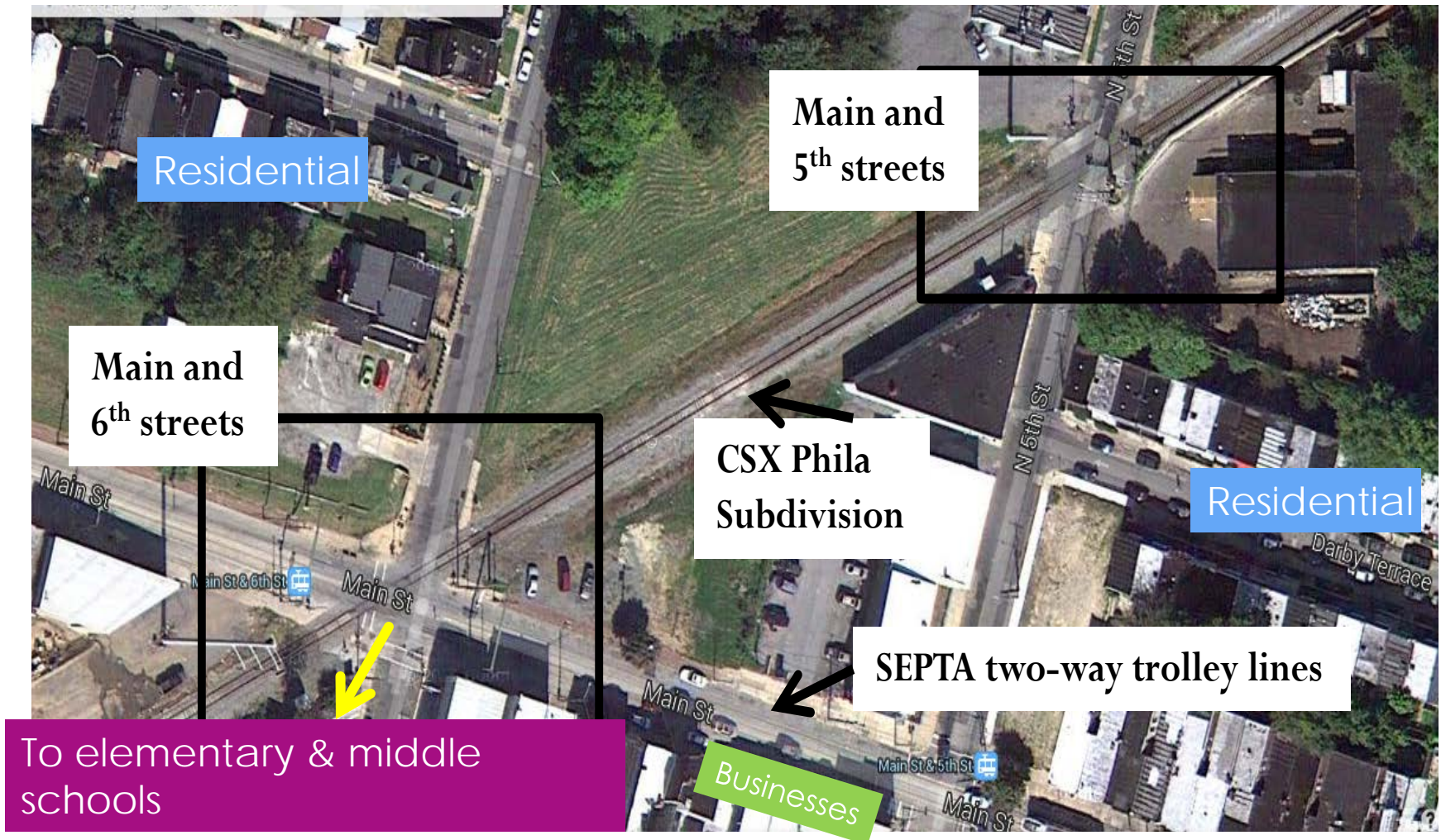


UG COURSES WITH FREIGHT COMPONENTS

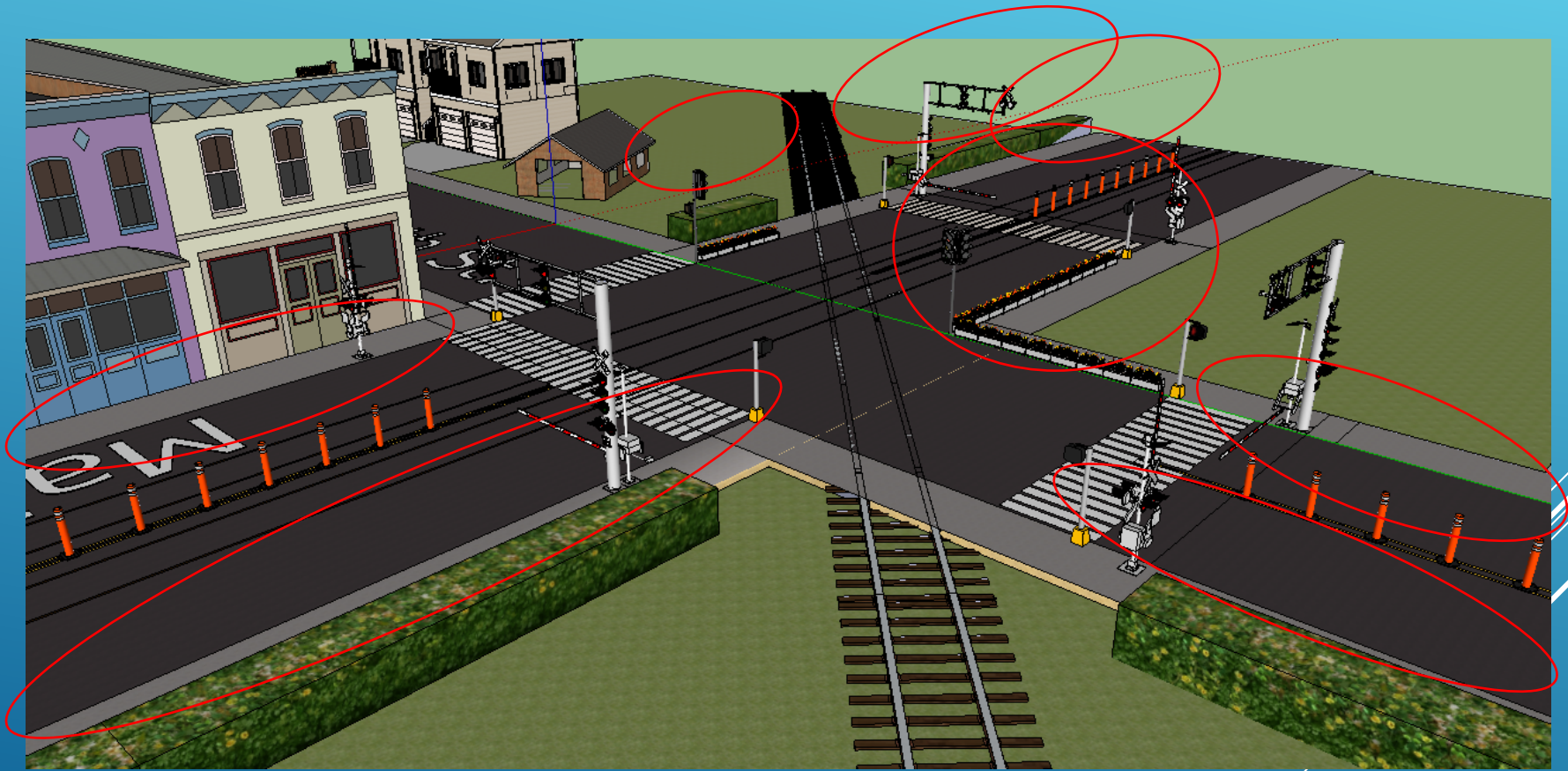
1. **Introduction to Transportation Engineering - - required course for sophomores**
Introduces concepts of moving freight, safety, energy, and train performance
2. **Engineering Economics- - required course for juniors**
Introduces world freight patterns, benefit/cost of freight movement
3. **Transportation Facilities Design - - design elective for seniors**
Includes design of railroad facilities and highway and airfield pavement design
4. **Senior Capstone Design in Transportation - - design elective for seniors**
Includes semester-long design project that includes a large portion related to elements of freight movement
5. **Undergraduate Research in Transportation - - optional course for juniors/seniors**
Internship with rail- or freight-related organization for one semester
6. **Professional Practices for Engineers - - required course for seniors**
Includes a semester-long project (which includes conceptual design related in some aspects to moving freight) in which skills related to ethics, business of engineering, value engineering, management and other soft skills are taught

SENIOR-LEVEL PROFESSIONAL PRACTICES FOR ENGINEERS COURSE

FREIGHT-RELATED SEMESTER PROJECT: AT-GRADE CROSSING



STUDENT TEAMS' FINAL PRODUCT: CONCEPTUAL DESIGN FOR AT-GRADE IMPROVEMENTS

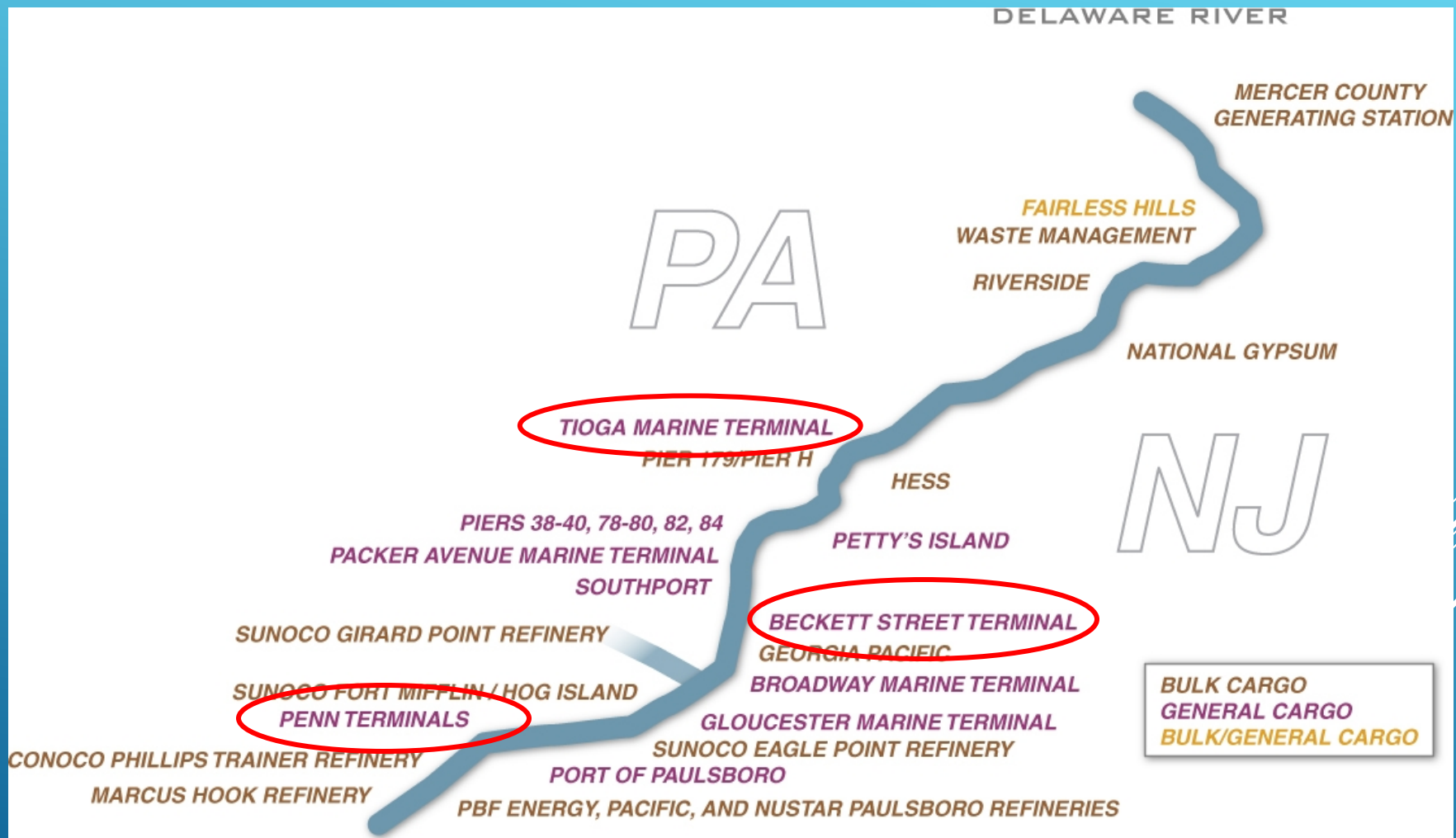


STUDENT PROJECTS

Researcher-Practitioner-Collaborator Model

- ▶ Students present their research and/or designs to the MPO, State DOT, FHWA, industry, and even at public hearings
- ▶ Presents real-world application of moving freight as part of the engineering education
- ▶ Outcomes of student projects can directly contribute to funding proposals submitted for consideration for TIP projects related to freight

SENIOR DESIGN PROJECT



FHWA Intermodal Connector Assessment Tool (ICAT)

Compare ICAT score of existing conditions to those of proposed design solutions

Intermodal Connector Assessment Tool (ICAT)

Home Page

Documentation

Model Setup

Data Entry

Results

Model Setup

Assessment Variable Weights for Scoring

Connector Evaluation Criteria	Default weight	User Specification	Selected Weights	Final Weights
1 Lane Width	4		4	4.0
2 Outer Shoulder Width	3		3	3.0
3 International Roughness Index	14		14	14.0
4 Horizontal Alignment Adequacy	9		9	9.0
5 Vertical Alignment Adequacy	5		5	5.0
6 Bridge Sufficiency Rating	11		11	11.0
7 Bridge Weight Limit	11		11	11.0
8 Tunnel Underpass Clearance	13		13	13.0
9 Peak Hour Volume/Capacity	13		13	13.0
10 Posted Speed	5		5	5.0
11 Crash Rates	12		12	12.0
TOTAL	100	0	100	100.0

Minimum number of Connector Evaluation Criteria necessary to generate a score for a connector

4

General Connector Scoring Criteria

Low Value	High Value	Condition Label	Condition Description [for more information see connector evaluation criteria sheets]
0	59	Very Poor	Below criteria for "Poor" condition
60	69	Poor	Up to 35% below urban interstate standards or fourth category in HPMS or other data source
70	79	Fair	Up to 20% below urban interstate standards or third category in HPMS or other data source
80	89	Good	Exceeds urban interstate standards or second category in HPMS or other data source
90	100	Excellent	Exceeds rural interstate standards or top category in HPMS or other data source



CURRICULUM ASSESSMENTS

MEASURING OUTCOMES

- ▶ Students were given a survey of 11 questions at beginning of a module on moving freight
 - ▶ General interest on freight and railway engineering
 - ▶ Current knowledge of topics related to moving freight
 - ▶ Interest in freight-related internships or post-graduate career
- ▶ **Same survey was given to students...**
 - ▶ After learning engineering topics related to freight in each course

CURRICULUM ASSESSMENTS

- Students self-rated their technical knowledge of moving freight
 - Increased in “fair to good” category from 5% to 75%
- Rated their interest level in freight-related modes
 - 50% increase on “very interested” option

EXAMPLE: RESULTS FROM SOPHOMORE INTRO CLASS

- Rating on interest in post-graduate career in freight or railway engineering
 - 75% said “Yes”

CURRICULUM SUPPLEMENTS

GUEST SPEAKERS

- ▶ Ted Dahlburg, Delaware Valley Regional Planning Commission (Freight Planning)
- ▶ John McCreavy, SMS Rail (a shortline RR)
- ▶ Derek Mihaly, CSX
- ▶ Timothy Tierney, Conrail
- ▶ Toby Fauver, PennDOT (Director for rail freight, ports and waterways)
- ▶ Scott Douglas, NJ DOT (Program Manager for maritime resources)

CURRICULUM SUPPLEMENTS

FIELD TRIPS

- ▶ CSX Trenching of Trenton-Philadelphia Subdivision
- ▶ Port of Philadelphia and associated rail yards
- ▶ Various marine terminals along Delaware River
- ▶ Pureland Industrial Complex in NJ



CURRICULUM SUPPLEMENTS

PROMOTING FREIGHT AS A CAREER PATH

Semester research internships


- DVRPC Freight & Aviation Planning
- Short-term research and application studies

Summer internships

Advanced degrees

- Part-time or full-time masters or Ph.D.
 - Engagement through research projects
- 

CLOSING REMARKS

- ▶ Promoting careers in freight-related fields must start at the outset of a degree program
 - ▶ Seek opportunities not only at 4-year universities, but focus also on curricular development at 2-year technical colleges and community colleges
 - ▶ Increase success by supplementing coursework with real-world opportunities and eventual job placement
 - ▶ Engage stakeholders (those who will HIRE your graduates) early on in the process
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THANK YOU FOR YOUR ATTENTION

CONTACT INFORMATION

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Freight Academy

Professional Capacity Building for Public Sector Management Staff on the Goods Movement System

Marygrace Parker

I-95 Corridor Coalition/Freight Academy Program Manager



Freight Academy Objective

- Through a comprehensive immersion experience, enable public sector transportation personnel to enhance operations and management to facilitate efficient goods movement on transportation systems and to make decisions and plan investments, through better understanding of the comprehensive supply chain.





Impetus for Freight Academy

The *incredible* shrinking, changing, multi-tasking public sector workforce!!

- An aging workforce in the public sector*
 - » Median age of *general* public sector workers 51.4
 - » 70% of *general* public sector workers 45+
- Agency attrition/downsizing, private sector competition
- Replacement of staff vacancies not always 100% or vacancies are for more extended periods
- Staff often serving cross-section of programs
- Funding constraints – training \$ limited or staff workload/shortages limit time out of office for training
 - Experience is often gained “on the job” or “by fire”

*Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS). Published in *Governing*, April 26, 2013



Freight Academy Goals

- Offer a unique, hands-on educational experience
- Promote understanding of supply chain as a time sensitive, integrated system
- Establish a core understanding of common freight terminology, supply chain practices, issues and needs
- Enhance public sector understanding of private sector supply chain “thinking”
- Create peer relationships and interaction
 - Between the public and private sectors
 - Across agencies and jurisdictions
- Build on/compliment other programs versus competing



Freight Academy Approach

- continued -

- **Learning Environment**

- Presenters almost exclusively from private sector to provide “real world” and “current” perspectives on issues/needs
- Field trip facilities specifically targeted to allow attendees to experience diverse examples and support interaction between hosts and tour group
- “Fast pace” of week instills concept of the real world pace of the supply chain/goods movement
- Classroom “right-sized” and state-of-the-art to optimize speaker presentations and interaction with group
 - Location (i.e. Rutgers CAIT) supports quick access to diverse field tours
- Program region offers numerous supply chain examples in proximity that support program elements and program pace
 - International airport (Newark) and load center port of PANYNJ, plentiful and diverse distribution/warehouse/business models for speakers/tours



Freight Academy Approach

- Build on, supplement, complement - *but do not duplicate* - other freight development efforts:
 - Undergraduate and graduate training programs
 - Existing courses on specific modes and/or analytical capabilities
 - FHWA Freight Professional Capacity Building Courses
 - Executive/leadership programs
 - i.e., Eno Foundation





Freight Academy: An Immersion Program

- Pre-Course Assignment
 - Develop a Regional Freight Profile
 - Must have completed FHWA/NHI Course 13001 – Intro to Freight
- Six Day Intensive Immersion Program
 - Classroom instruction, dominated by private sector representatives: shippers/freight system customers and all elements/modes involved in goods movement
 - Field Visits to various supply chain/goods movement facilities
 - Capstone work in cross-disciplinary teams
 - “Boot Camp” pace
- Post-work
 - Complete and Present Capstone Projects to mentors





Freight Academy Participant Profile

- Mid to Senior level public agency management staff
 - With goods movement responsibilities or whose programs/policies may impact goods movement
 - Who want to extend their knowledge base to multiple modes
- Multi-Disciplinary Agencies
 - State DOTs, MPOs, USDOT (FHWA, FMCSA, FTA, MARAD), Port and Transportation Authorities, Coast Guard, Economic Development within I-95 states and nationally
- Professional Disciplines include:
 - Planners (Highway/Rail, Environmental, Land Use) , Operations (i.e., Transportation Management Centers, Specialized Permits, Motor Carrier Regulatory), HQ/District Engineers, Policy/Government Affairs, Economists...



Freight Academy Program Elements

- Introduction to Multimodal Freight, Logistics and the Global Supply Chain
- Modal Overview
 - Industry structure and context
 - Management
 - Regulatory, financial, technologies and other considerations
 - Public and private sector viewpoints
- Shipper and industry perspectives
 - Factors that influence how shippers use supply chain
 - i.e., decision-making on modal choices, industry location/relocation
- Linking relationship of freight to economic development
- Integrating freight and community/public needs



Freight Academy Program Elements

- Classroom Instruction
 - Conducted in State-of-the-Art instructional facility
- Program Elements
 - Introduction to Multimodal Freight, Logistics and the Global Supply Chain
 - Modal Overview
 - Industry structure and context
 - Management
 - Regulatory, financial, technologies, other considerations
 - Public and private sector viewpoints





Freight Academy Program Elements

- Shipper and industry perspectives
 - Factors that influence how shippers use supply chain
 - i.e., decision-making on modal choices, industry location/relocation
- Linking relationship of freight to economic development
- Integrating freight and community/public needs
- Public Sector Best Practices
 - Economic Development Initiatives
 - Public/Private Partnerships





Freight Academy Program Elements

- Field Visits
 - Familiarize participants with day to day operations in goods movement and supply chain processes thru on site exposure to facilities
 - Distribution Centers/Warehouses
 - » Serving wholesale, retail, on-line operations
 - Rail and Intermodal facilities
 - Major Load Center Seaport
 - International Airport with major air cargo operations
 - Instructional “boots on the ground”, led by facility personnel with Q&A





Freight Academy Capstone Projects

- Teams assembled and assigned projects at start of week – hypothetical problem statements used
 - Collaborative session times built in program week
 - Teams complete work “virtually” following program preparing report and executive summary
 - Present via webinar to “mentor” panels of senior freight and related staff from across US
- Capstone Project Objectives
 - Expand experience with situations likely to arise while addressing freight issues
 - Apply principles learned during program week
 - Build team and leadership skills
 - Create long term peer relations





Sample Immersion Program Overview

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	Continental Breakfast	Continental Breakfast	Continental Breakfast	Continental Breakfast	Continental Breakfast
	9-11 - Overview of the Freight System -- Components, Players and Considerations	9-10:30 – Ports – Role in the Freight System, Inland movements by rail and truck, and Information for Field Visit	9-11 – Trucks – Overview from the Private Sector – Use of the System, Players, Customers, and Considerations	9- 10:30 Distribution Centers, Economic Development and Site Selection – Private Panel (Prologis, Matrix)	9-10:30 – Airports – Role in the Freight System, related movements by truck, and Information for Field Visit
	Capstone Project Introduction	10:45 – 12:30 – Field Visit to Port	Walk Around of a 53 footer (in parking lot)	10:45 – 1 – Field Visit to national Distribution Center	10:45 – 1 -- Field Visit to Airport and discussion with Air Cargo Carriers
	Lunch		Working Lunch – Capstone Project Session		
	1-3 – How Shippers View and Use the Freight System (private sector discussion panel)	12:30 – 2 – Lunch at the Port Topic: International Trade, Transportation and Economic Development (public and private sector panel)	1-3 – Trucks – Overview from the Public Sector (including incident management)	Lunch	1- 2:30 – Working Lunch – Discussion of the Lessons Learned on the Freight System and Immersion Program
				2- 3:30 Rail Freight – Overview from the Private Sector – Use of the System, Players, Customers, and Considerations	
				3:30-3:45 - Break	
	3:30 – 6 -- Shipper Field Visit to Retail Distribution Center	2 – 4 – International to Domestic Field Visit to Cross Dock Operation	3:30 – 6 Field Visit to UPS or FedEx Ground Sort Operation	3:45- 5 - Rail Freight – Overview from the Public Sector (including incident management)	2:30 – 4 Closing Session of Immersion Program and Recognition of Participants
5 - Registration and Welcome Reception		Capstone Project Work Session		Capstone Project Work Session	
6:30 - Dinner and Academy Orientation	6:30 - Dinner – Open Discussion of Field Visit	6:30 - Dinner	Group Activity in Area	6:30 – Dinner – Keynote Speaker	



Freight Academy Benefits For Participants

- Increased Knowledge of
 - Factors and components of an integrated freight system
 - Relationship of freight to the economy, local communities, the environment, and public and private freight stakeholders;
 - Technical tools of freight movement and operations and conditions under which they can be effectively applied/managed;
- Broaden Abilities
 - To more effectively advocate the importance of a freight focus within their agencies
 - To leverage relationships to network and gather input from peers and private sector to improve planning and operational efforts.



Freight Academy Benefits To Agencies

- Staff gains practical knowledge of freight transportation in a short period of time building professional capacity and subject matter expertise within agency
- Staff exposed to public and private sector views of freight system for more “balanced” understanding
- Participants develop cross agency relationships that allow for greater informational and best practices exchange, communication and collaboration

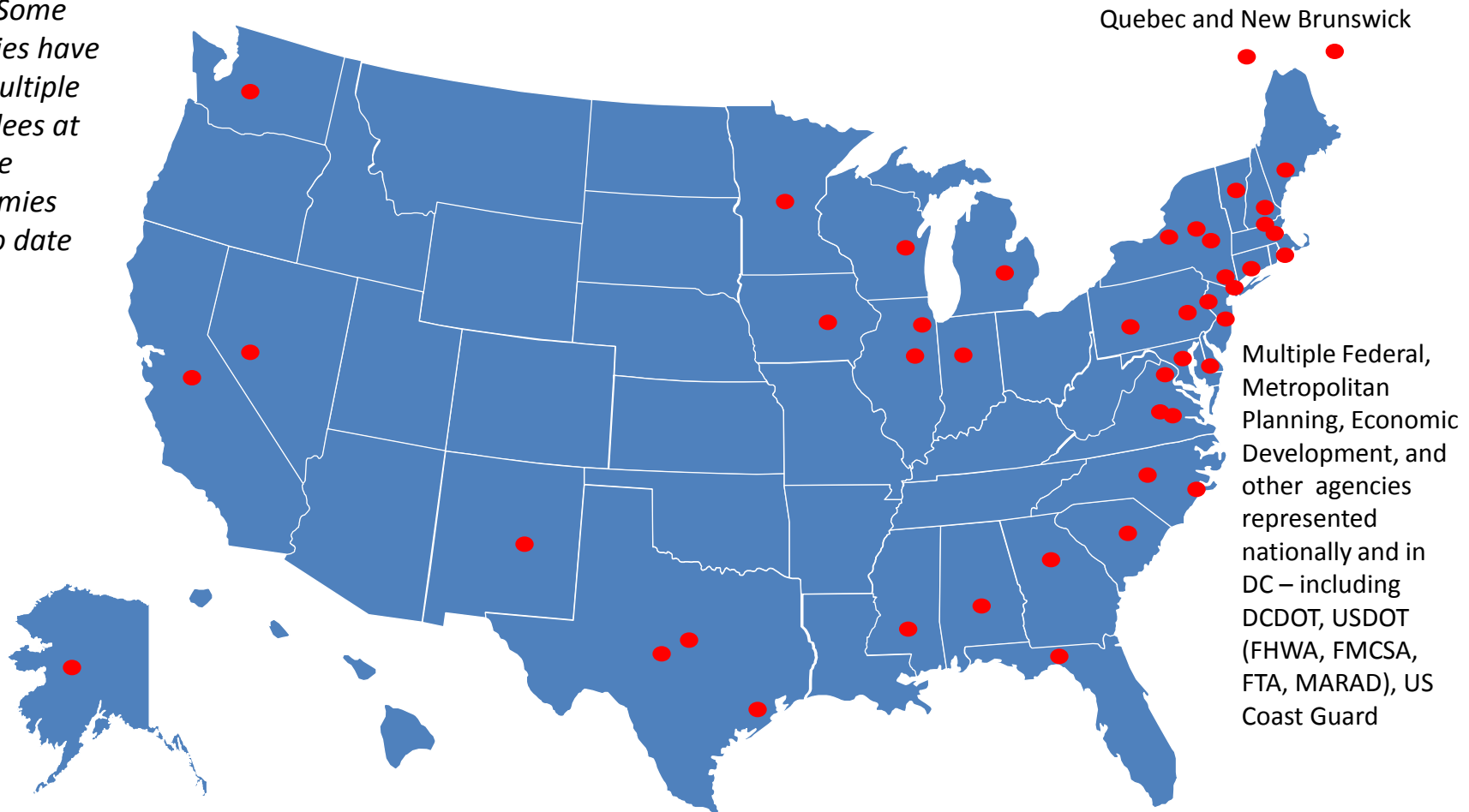




Freight Academy Success Story

149 Graduates Representing 56 Agencies

Note: Some agencies have had multiple attendees at the five Academies held to date





Freight Academy

Principles for Success

- Participants and agencies must be committed to the program
 - Agencies and supervisors **should not** expect participants to do their regular work while on-site at the Academy
 - Participants must be fully engaged; immersion week is a “sun up to sundown plus” program
 - Select “the eager” not the “might as well” candidates with strong supervisory/agency support to attend
- Instructor expertise is crucial to the success of the program
 - Draw from the private sector
 - Seek dynamic and engaging instructors
- Field visits are integral to the program and must be relevant, in-depth, instructional tours



Freight Academy

Principles for Success

- continued -

- Participants must be recognized
 - Certificates of completion, AICP credits, press releases and other announcements are important
- Curriculum and instructors must always be relevant and engaging and also reflect current issues/emerging trends
 - To provide value in exchange for amount of time away from the office, the cost, as well as the amount of pre-program work required
- Feedback from participants always considered
 - Each program is shaped in part by feedback from prior groups' evaluations
- Built in opportunities for participants to network
 - Meals together and with presenters, travel together every day by bus, "optional dinner on your own," keynote dinner



Freight Academy

Principles for Success

- continued -

- Interdisciplinary, experiential group Capstone project is a necessary component
 - ✓ Reinforces information presented in class and field visits
 - ✓ Can build leadership and teamwork skills (and lasting relationships beyond Immersion Week)
 - ✓ Simulates real-world situations that will be encountered in participants' agencies



Freight Training Programs Can Build Future “Freight Leaders”

- 149 graduates from five Freight Academy program offerings
 - “Alumni” represent diverse group of federal, state, local agencies and program disciplines
 - Many “alumni” are now leading or integrally involved in directing/supporting freight programs at MPOs, State DOTs, USDOT and other agencies and organizations
 - I-95 Corridor Coalition supports a “list serv” for graduates used to exchange information and share best practices





Where Will the Next Generation of Freight Planners Come From

- We can “build” more freight professional capacity thru “continuing education efforts” utilizing programs such as:
 - “Talking Freight” series,
 - Expanding freight training elements into on-line education and certification programs
 - Peer to Peer exchange programs
- Through immersion (“Boots on the Ground”) training programs such as Freight Academy
- Develop partnerships with industry for public agency staff to serve in private sector Internships



“Professional Capacity By “Recreating” a Freight Academy

- Freight Academy alumni from Florida DOT collaborated to create Florida Freight Academy
 - Similar elements of original program – field trips and private sector exposures, classroom, shorter length
 - Focuses heavily on Florida’s freight environment and issues
 - Collaboration with University and includes academic instructors

(Agency continues to send staff to Freight Academy with intention to gain freight perspectives/peer interaction beyond their state)
- Important to maintain key program elements
 - Private sector inputs, program pace, multi-modal exposure, diversity of supply chain for inputs



Building/Keeping a Freight “Next Gen”

- There is a need to “start early” and “often”
 - High School, College, Graduate instruction and internships, organizational leadership programs, peer exchanges
- *However*, goods movement world changes rapidly. For public sector capacity to “keep up”:
 - Will require continued investment in training of staff by public and willingness to overcome challenges such as
 - Public agency financial and staffing constraints and staff turnover
 - Perception” of travel/training as “perks” vs “public investment”
- Private sector support critical
 - To offer expertise, participation in programs
 - To stress importance of public sector capacity needs to freight and economic development
- Workforce development funding will be needed!



For More Information on the Freight Academy contact

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