ODOT/FHWA SHRP L6 Operations Benchmarking Scanning Tours

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ODOT’s Journey to a Model Operations Program

• What is our current state?
• Where do we go from here?
• Benchmarking – Part 1
• Benchmarking – Part 2
• Next Steps

“We are on a mission from ODOT. “
The “DOT” BROTHERS

It feels good to be lost in the right direction.
What Is “Operations”?

Demands to get more out of our transportation system:
• Customer expectations
• Technology Advances
• Performance measures
• Increasing financial constraints
• Maximizing Use of Infrastructure

Solution?

Improving Traffic Systems Management and Operations (TSMO)
Traditional approach to managing transportation -

• Predict future (long-range) traffic volumes

• Fund major capital projects to provide additional capacity

This only addresses 40% of the congestion problem.

• Also becoming more and more difficult to provide new capacity

Causes of Congestion (Source: FHWA, 2005)
Operations Can Help Address These Challenges

**Leverage Technology**
- Preserve and maximize existing capacity
- Enhance safety
- Promote mobility and customer outreach
- Improve reliability for commuters and freight
- Manage bottlenecks
- Monitor performance
- Implement quickly at relatively low cost
Using the SHRP2 Solution

Organizing for Reliability Tools

• **Case studies** and **guidance** on best practices

• **Self-assessment**, either online or in-person

• **Customizable presentation** for mid- to senior-level management on key elements and how to get there
It Begins with Self-Assessment

**Self-Evaluation Date:** 8/22/2013

- **Business processes:** 2
- **Systems and Technology:** 1.5
- **Performance Management:** 3
- **Culture:** 2
- **Organization and workforce:** 1
- **Collaboration:** 2

**ODOTAVG:** 1.8

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**Levels of Agency Capability Maturity**

1. **Performing**
   - Activities and relationships ad hoc
   - Champion-driven

2. **Managed**
   - Processes developing
   - Staff training
   - Limited accountability

3. **Integrated**
   - Process documented
   - Performance measured
   - Organization/partners aligned
   - Program budgeted

4. **Optimized**
   - Performance-based improvement
   - Formal program
   - Formal partnerships

**Goal for the Future**

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**ODOTAVG 1.8**
ODOT’s Goal

Goal: To Create a Model Operations Program

Objective: Create and Implement an Action Plan to Take Us There

Strategies:
- Developing an Implementation Plan
- Making the Case for ODOT Operations
- Improving Systems and Technology
- Identify Organization and Staffing Needs
It Isn’t So Simple

Success

what people think it looks like

Success

what it really looks like
I WANT!

PULLING

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$  

GIMME GIMME GIMME

OWN YOUR OWN HOME

I NEED!

I WANT!

BANK

$
States Visited/Scanning Tours
SHRP2 Ohio Attendees

- **Central Office**
  - **Division of Operations**
    - Sonja Simpson, Deputy Director
    - Traffic Operations
      - Jason Yeray, Administrator
      - Alex Weinandy
      - Bryan Comer
      - Jim Roth
      - John MacAdam
      - Nick Hegemier
      - Paul Lundstrom
      - Ryan Lowe
      - Stephanie Mark
  - Traffic Management Center
    - John McKnabb
    - Dominic Delcol
  - Other
    - Brent Bogard – Roadway Engineering
    - Michelle May – Safety
    - Scott Phinney – Planning and Research
    - Todd Wulfhorst – IT
    - Wendy Flowers – IT

- **Districts**
  - Eric Planning - D1 Roadway Services
  - Hiram Crabtree - D2 Business Human Svc's
  - Mike Stormer - D2 Planning/Engineering
  - Lorie Feudner - D4 Planning/Engineering
  - Ty Thompson - D5 Planning/Engineering
  - Kraig Shrewsberry - D6 Traffic
  - Tom Corey - D11 Hwy Management Admin
  - Tony Toth - D12 Traffic

- **Federal Highway Administration**
  - Andy Johns
  - Carmen Stemen
  - Frank Burkett
  - Leigh Oesterling

- **District Deputy Directors**
  - Al Biehl - District 4
  - Randy Chevalley - District 7
  - Tammy Campbell - District 8

- **Other Representatives**
  - Bob Koehler – OKI
  - Fritz Crosier – Franklin Co. Engineer
  - Jeff Swan – Ohio Office of IT
  - Melissa Thompson – NOACA
  - Reynaldo Stargell – City of Columbus Traffic
  - Travis Bonnett – OTC
Utah – March 9-10, 2015

- **2002 Olympics**
- 1640 (+/-) employees; 17,968 Lane Miles
- Not Home Rule
- No Union
- Big into Fiber/Private Leases
- UDOT Controls City Signals/Hand Shake
- Signals (% Vehicles Hitting Green)
- TMC/Oh Yeah
- Matrix Table of Organization
Colorado – March 11-12, 2015

- **I-70 Ski Resorts**
  - 2400(+-) Employees;
  - 23,000+ Lane Miles
- Home Rule
- No Union
- 4DX & TSMO Director
- Push for Public Identification/TV Stations
- I-70 Mountain Corridor Measures/Weekend
- Weather - 4 Meteorologists CDOT'ers
Maryland – March 23-24, 2015

- **Neighboring DC and FSP**
- 3000+/- Employees 17,000+ Lane Miles
- No Home Rule
- Have a Union
- 1997 Chart/ITS - Branded w/ established $$
- Many/much MPO Coordination or Maybe Meetings
- University of Maryland - Major Partner
  - RIT: Regional Integrated Transportation Information Service
- 49 Freeway Service Patrol Trucks
Pennsylvania – March 24-25, 2015

- 2008 Valentines Day Storm
- 11,883 Employees (10,179 for Highway Management); 41,000+ Lane Miles
- No Home Rule
- Have a Union
- Extremely Decentralized/ Central Office Recommends
- Building a New TMC/ Law Enforcement - Taj Mahal
- Excellent/ High Level Traffic Engineering Staff
- Dedicated Person to Connected/Automated Vehicle Technology
Al’s Scanning Tour

- While Randy’s group was focused on the important technical aspects of their visits, our group focused on the really important things…
Portland, Oregon
Seattle, Washington
Olympia, Washington
Washington/Oregon
Wisconsin has seen success with dedicated IT staff for Traffic Operations.

Wisconsin has a mature incident management program with established performance measurements.

Strong relationship with local university for data warehousing and data analysis.
• Minnesota maintains a long range plan with heavy Traffic Operations integration.

• Minnesota has a strong relationship between Traffic Operations and the winter maintenance offices. This relationship, along with ownership of IT resources, encourages innovation.
• Oregon integrates Operations early in their planning process.
• Oregon created an impressive Regional Transportation System Management and Operations (TSMO) study/plan.
• Oregon established a joint goal with Patrol to clear all incidents in 90 minutes.
• Strong relationship with local university for data warehousing and data analysis.
• Washington integrates Operations early in their planning process.
• Washington improves their ATMS quickly since developers work directly for Operations.
**Strengths**

- Snow and ice
- Incident Management
- Logo/TOD Program
- TMC
- TRIP

**Weaknesses**

- Traffic Operations/Lack of Plan (TSMO)
- Reliable Funding Source
- IT Ownership
- Tier 3 Asset Matric Inventory (ITS/Traffic Signals)
- Signals (inventory/operational) Home Rule
- Organizational structure – District vs Regional vs Central
Survey Says
Short-Term Goals

• Include Traffic Systems Management and Operations (TSMO) into the culture of ODOT’s planning process

• Devote specific $ funding resources to TSMO/ITS/TOC

• Define ownership and resources for Information Technology Support

• Develop a consistent reliable $ funding source for traffic signals similar to roads and bridges

• Focus on traffic signal personnel qualifications and training

• Assign a person to participate in the national dialogue regarding connected vehicles

• Embrace technology solutions
Long-Term Goals

- Perform a **staffing and organizational analysis**
- Establish **partnership agreements** to address multi-jurisdictional traffic signal corridor operations
- **Invest resources** to optimize and balance congestion on the interstates and arterials
- **Dedicate funding** for ODOT and Locals for traffic signal improvements
- Obtain defined **ownership and resources for Active Traffic Demand Management (ATDM)**
- Establish impactful performance measures
Next Steps

• Develop a one-page document for ODOT executive management to obtain buy in – 9/8/15 (Complete)

• Identify local governmental entities to champion traffic operations with ODOT.

• Update Operations Strategic Plan - Fall 2015

• Incorporate ITS/traffic signals to Tier 1 maintenance inventory status for FY2017 (Starting July 1\textsuperscript{st}, 2016)

• Hire a consultant to develop a TSM&O Program Plan
THANK YOU!

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Questions?