

NCHRP 20-68A

US Domestic Scan Program

Domestic Scan 13-01

Advances in Developing a Cross- Trained Workforce

Significant Findings and Recommendations

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Overview

- Scan Objectives and Participants
- Summary
 - Initial Findings
 - Conclusions/Recommendations
 - Dissemination Activities

Scan Objectives

- Problem Statement developed by Jennifer Toth, AZ DOT
 - Leading Management Practices For Developing A Cross-Trained Workforce will investigate how agencies are using workforce cross-training as a strategy for enhancing agency efficiency and agility in adapting to changing missions, priorities and budgets; and the conditions under which cross-training strategies are applicable and appropriate.

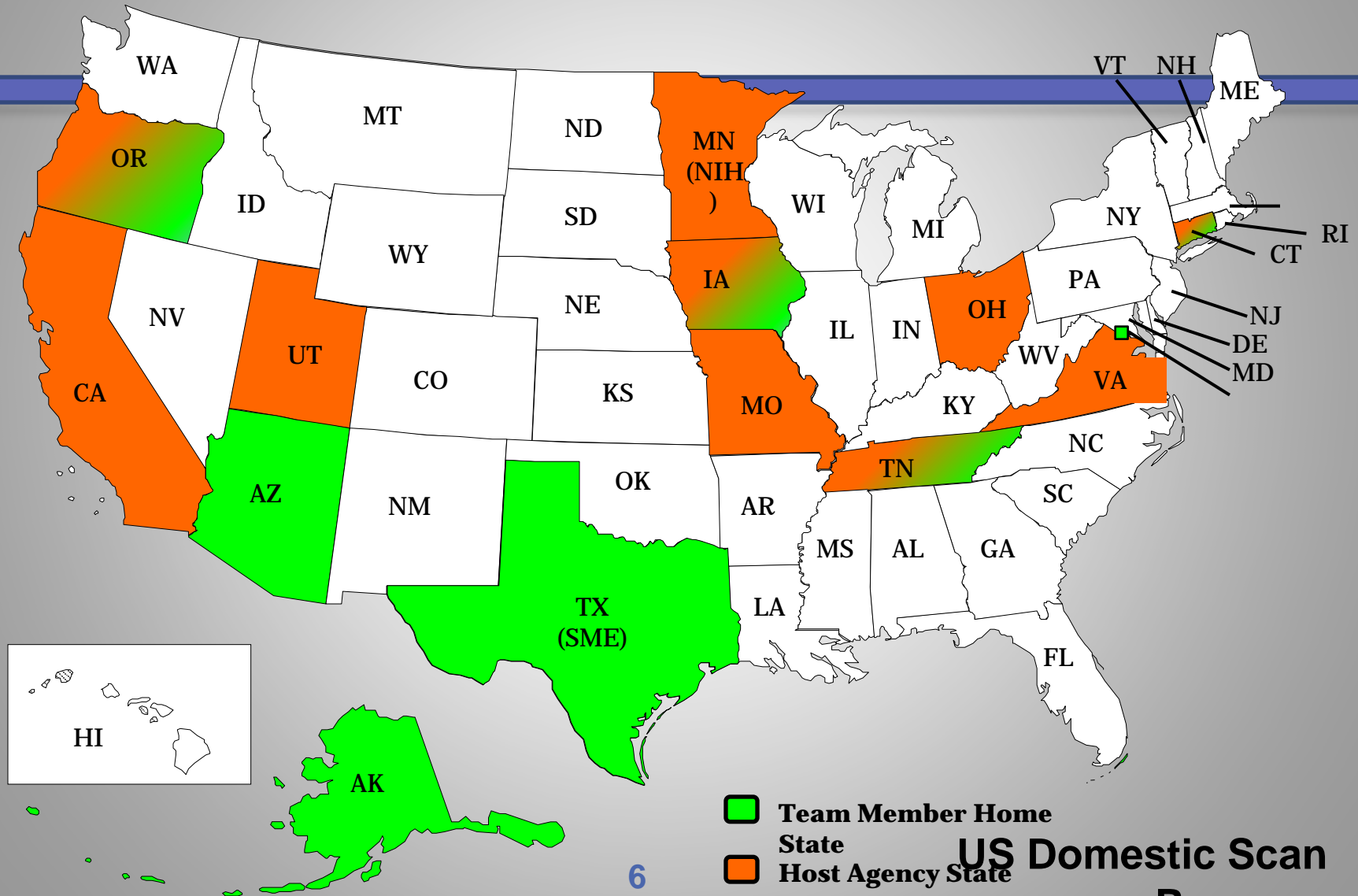
Presenting Organizations

- CalTrans
- Connecticut DOT
- Iowa DOT
- Missouri DOT
- National Institutes of Health
- Ohio DOT
- Oregon DOT
- Tennessee DOT
- Utah DOT
- Virginia DOT

Team Members

- **Amanda Holland**, (Chair), Division Operations Manager, Administrative Services Division, Alaska DOT & PF
- **Olivia P. Alexander**, Team Leader, Talent Development Division, FHWA Office of Human Resources
- **Ann “Vicki” Arpin**, Human Resources Administrator, Connecticut DOT
- **Greg Duncan, P.E.**, Assistant Chief Engineer for Operations, Tennessee DOT
- **Todd Emery, P. E.**, Deputy State Engineer, Statewide Operations, Arizona DOT
- **Jane Lee**, Chief, HR Officer Human Resources, Oregon DOT
- **Lee Wilkinson**, Director, Operations and Finance Division, Iowa DOT
- **Rick A. Smith**, Subject Matter Expert

Scan 13-01 Team Members Home State and Host Agency States





Summary



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Cross Training Definition

- “to train (an employee) to do more than one specific job” (Webster’s Dictionary)
- Teaches an employee who was hired to perform one job function the skills required to perform other job functions.
- Cross-trained employees become greater assets while gaining knowledge and skills that benefit them personally.
- An umbrella term used interchangeably with Job Shadowing and Rotation
- Eases the challenges of workforce shrink and reductions in funding.



What are the Business Needs?

- More skilled/capable workforce
- Employees more aware of the big picture
- Redundancy...Reliability
- Integration into Organization
- Executive Bench-strength
- Core strengthened Organization



Best Practices

- Single Discipline
- More Robust Employees
- New Employee/Engineer-in-Training
- Executive Programs
- Large Scale Silo Swapping



Best Practices

- More Robust Employees
 - NIH fed needs of Employees
 - CalTrans Knowledge Pyramid
 - Oregon DOT has a Right of Way rotational assignment program



Best Practices

- New Employee/Engineer-in-Training
 - CalTrans rotation program for engineers and planners
 - Focus is on Academies, coaching, internal training, mentoring, and job shadowing.
 - CT using consultant Bridge Inspectors to train CT employees
 - OH tests potential hires to determine behavioral traits and skill sets
- US Domestic Scan Program



Best Practices

- **Executive Programs**
 - VDOT Executive leadership rotation
 - District Engineer exposed to HQ
 - Temporary Special Assignment
 - MODOT Accelerated Leadership Development
 - EIT's with 3-5 years experience



Best Practices

- Large Scale Silo Swapping
 - Iowa has a voluntary program for Trans Technicians
 - Worked with Union
 - Tennessee restructured all Maintenance Workers and Construction Technicians
 - Reclassification to Operations Tech (1, 2, 3)



Performance Measures

- Reduction in construction inspection cost(Tenn DOT).
- Meets the Federal Metric Requirements(Connecticut DOT).
- Completion of the cross-training assignment and feedback from those directly involved(VDOT).



~ Conclusions ~

A. Three categories of conclusions were developed by the scan team:

- 1) Conclusions addressing **How** successful cross-training programs can be developed
- 2) Conclusions for whom **Who** cross-training is intended
- 3) Conclusions that describe **Why** DOTs should adopt cross-training



~ Conclusions ~

1. HOW

- Consider using adult learning theories, learning styles and barriers to learning (Malcom Knowles) when designing cross-training curriculum and activities.
- Use internal resources/SMEs.
- Tailor cross-training to meet predetermined goals and objectives.
- Engage Union from the beginning.



~ Conclusions ~

1. HOW (cont.)

- Cross-training programs can be adopted from similar organizations if the program is adaptable to the specific needs of the Department; one size does not fit all.
- It is possible to implement cross-training in different employment environments – union or non-union.



~ Conclusions ~

2. WHO

- Agency commitment
- A positive tone at the top is important and sets the stage for success
 - a. A champion
 - b. An action plan based on change management.
 - c. Employee involvement



~ Conclusions ~

3. *WHY*

- Consolidate resources
- Develops employees thereby improving agency
- There is an identified business need. For example, maintaining level of service through a reduction in workforce.
- Cross-training leverages organizational talent. Business cases vary but if they are clearly designed at onset, it will be easier to develop & implement performance measures.



~ Recommendations ~

- Consider informal cross-training options.
- Carefully select mentors or coaches who will be used in cross-training programs.
- Develop performance metrics to show the value of these programs.
- Embrace generational diversity.
- Align cross-training programs with organizational mission, vision, goals, and needs.



Questions?

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