

TRANSPORTATION

RESEARCH BOARD

Training Leaders To Build Tomorrow's Transportation Workforce

16th IRF World Meeting
May 2010

National Academy of Sciences
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May 27, 2010

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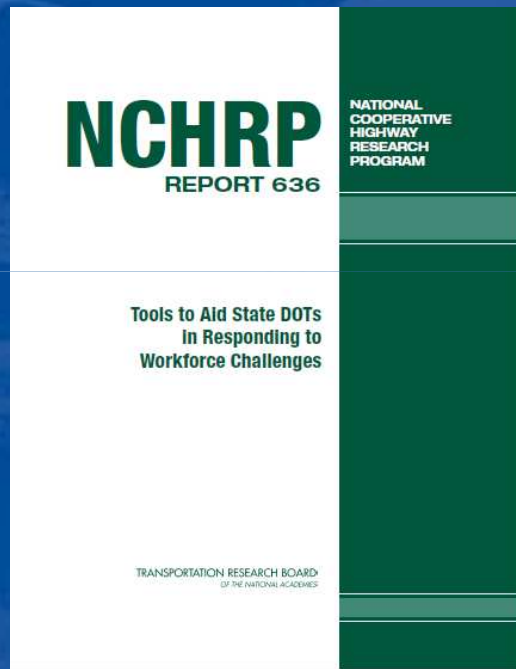
TRB Critical Issues in Transportation

- *With the current problems in hiring capable workers, and with the projections for retirements in the public and private sectors, attracting more and better students into transportation careers is critical.*
- *Given the complexity of the issues to be addressed, workers will need a wider range of skills and training than the current workforce possesses.*

TRB Reports

- *TRB Special Report 275: The Workforce Challenge.*
- NCHRP Project 20-24(40), “Analysis and Benchmarking of State DOT Recruitment and Hiring Practices.”
- NCHRP Project 20-24(48), “Analysis and Benchmarking of State DOT Human Resource Activities.”
- NCHRP Project 20-24(50), “In-Service Training Needs for State DOTs.”
- *•NCHRP Synthesis 323: Recruiting and Retaining Individuals in State Transportation Agencies.*
- *•NCHRP Synthesis 349: Developing Transportation Agency Leaders: A Synthesis of Highway Practice.*
- *•NCHRP Synthesis 362: Training Programs, Policies, and Practices.*

TRB Reports



- NCHRP 636: Tools to Aid State DOTs in Responding to Workforce Challenges (2009)
- NCHRP Project 20-81: Guide to Implementing Strategies to Attract and Retain a Capable Transportation Workforce

Future Trends #1: Organizational Change

- Technology tools making collaboration easier
- Networked teams will be essential
 - Merging direct hires with talent from other sources
- Customers' demands that services become more effective and efficient with limited resources

Future Trends #2: Leadership Development

- Reduced hierarchical structures
- Leadership development will need to occur at every level
- Change of culture to a more networked structure
- Assemble and use teams inside and outside of organization
- Focus on enhancing individual's strengths, not curing weaknesses

Future Trends #3: Organizational Development

- Increased use of information technology systems and resources
- The presence of three to four generations of workers in the workforce
- Pressures forcing social networking within and outside the organization
- The scarcity of sufficient numbers of individuals in the labor pool to meet workforce needs

Future Trends #4: Measuring Organizational Performance

- Talk will be replaced by reality
- Assess performance against overall goals and objectives
- Link with human, fiscal, and other resources
- Employee and organizational performance closely related
- Performance measured on ultimate outcomes

Future Trends #5: Measuring Individual Performance

- Managing organizational and individual performance as two halves of the whole
- Merging strategic plan goals and outcomes with individual performance requirements
- Assuring both supervisors and employees understand how these pieces work together

Future Trends #6: Recruitment

- “Rebranding” the profession & the organization
- Broadened to focus on sources of skill sets
- Reach out to more diverse workforce
- Applications will be mostly internet based
 - Organizations need to substantially enhance their web-based recruitment tools

Future Trends #7: Retention

- Decrease in growth of labor pool
- Competition for well-qualified workers will be at a premium
- Need to provide interesting work
- Allow employees to make substantial contributions
- Provide opportunities to grow and develop professionally

Future Trends #8: Retirement

- Retirement is being redefined
- Workforce will include as many as four generations of employees
- Retirement benefits and work arrangements being affected
- “Step down” work arrangements
- Succession planning

Future Trends #9: Knowledge Management

- Organizing knowledge for the maximum benefit of the organization, employees, customers, and stakeholders
- An essential competitive advantage as organizations compete for the best talent
- Organizations will make slow but steady progress

Future Trends #10: Workforce Training & Development

- Rate of new knowledge creation will increase exponentially
- Assure that workforce acquires knowledge necessary to achieve goals & outcomes
- Increase understanding of which training mechanisms most effective & efficient
- More informal computer based training likely to play a bigger role

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Examples of Best Practices



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State DOT Workforce Toolkit

- From NCHRP Report 636
- Web address (demonstration site):
<http://nchrpworkforcetoolkit.com/NCHRP.aspx>
- Links to 200 resources on common state DOT workforce issues
- Organized around top ten needs facing DOT workforce managers

State DOT Workforce Toolkit

- Top Ten DOT Needs
- FAQ
- Functional View
- Faceted Search
- Geographic View
- Text Search
- Add Resource
- State Practices
- Home
- Forum

[Home](#) > Top Ten DOT Needs

Top Ten DOT Workforce Needs

I am seeking resources to help me:

My organization needs to address	A. Understand issues and trends	B. Learn about peer agencies	C. Assess our situation	D. Implement programs, policies, procedures
1. Strategic workforce planning	Resource list	Resource list	Resource list	Resource list
2. Attracting and retaining talent	Resource list	Resource list	Resource list	Resource list
3. Retooling the workforce to meet evolving business needs	Resource list	Resource list	Resource list	Resource list
4. Grooming the next generation of leaders	Resource list	Resource list	Resource list	Resource list
5. Downsizing	Resource list	Resource list	Resource list	Resource list
6. Preserving institutional knowledge	Resource list	Resource list	Resource list	Resource list
7. Employee conflicts and performance issues	Resource list	Resource list	Resource list	Resource list
8. Outsourcing	Resource list	Resource list	Resource list	Resource list
9. Organizational change - reengineering and reorganization	Resource list	Resource list	Resource list	Resource list
10. Improving efficiency and effectiveness of the HR function	Resource list	Resource list	Resource list	Resource list

Minnesota DOT CARRS Program

- Community Advisors on Recruitment and Retention Solutions (CARRS)
- Partnership with 18 minority or women-managed organizations
- Partners hold community meetings and disseminate information on DOT job openings
- CARRS produced 30 minority hires in a year
- Improved community relations with DOT

North Carolina DOT Supervisor Academy

- For employees transitioning to a supervisory role
- Two 2-week courses: Fundamentals of Supervision, and Advanced
- Participants and immediate supervisors complete a pre and post Academy survey
- DOT has seen a improvements for supervisors in these measures

Washington State DOT Branding Through Social Media

- Using YouTube and Facebook to re-brand the agency and to connect with younger population
- Includes information about the transportation industry and a typical career at WSDOT
- Variety of videos on key position classes and sample employees

Maryland SHA Advanced Leadership Program

- SHA developed to identify employees to fill leadership positions before those positions become vacant
- Two-year training program
- Employees must apply – selection very competitive
- Individual development plans focus on leadership, career, personal, and community
- Has increased tenure for future leaders, number of qualified leaders, and number of working mothers in leadership positions

MnDOT Succession Planning for Supervisors & Leadership

- Develops employees for 37 targeted leadership positions
- Relies on 7 core competencies that support the DOT mission, vision, and goals
- Assesses each individual's competencies and professional development needs to prepare for next level
- Employs job-sharing, job-switching, and training as part of preparation
- Program has directly influenced more than 20 senior appointments

Virginia DOT Knowledge Management Program

- Guards against losses in critical institutional knowledge due to retirements and downsizing
- Includes process mapping, organizational network analysis, lessons learned, and communities of practice
- Collects return-on-investment data on cost savings due to improved processes
- KM program has been “overwhelmingly successful”

Distance Learning Program for Transportation Leaders

- Early to mid-career professionals who are potential leaders
- Graduate education certificate program on transportation policy, management, & operations
- Real time delivery over a common distance learning medium
- Delivered by faculty from outstanding universities
- Certificate delivered by Regional University Transportation Centers
- Three year pilot program to be initiated soon

**Obrigado!
Thank You!**

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