

# ***2025 National Summit on The Future of the Transportation Workforce: Notes and Resources***



**“Workforce development is a righteous and patriotic act.”**

--Phil Washington, CEO, Denver International Airport, Lead Keynote for the National Summit on the Future of the Transportation Workforce

Thought leaders in transportation workforce recruitment, training, retention, and knowledge management came together, June 2-4, 2025, for the *National Summit on The Future of the Transportation Workforce*, to address challenges faced in each step of the workforce life cycle. The Transportation Research Board (TRB) organized the Summit, the first national gathering to tackle this issue since 2012.

The interactive two-and-a-half-day summit included a series of keynote presentations, moderated panels, table-top working sessions, and breakout sessions that focused on crucial issues facing the transportation workforce. The conversations identified research needs of practitioners, presented programs and practices that were ready to be replicated, and opened conversations on ideas for future partnerships and network building to ensure a resilient and skilled workforce for changing modes and communities.

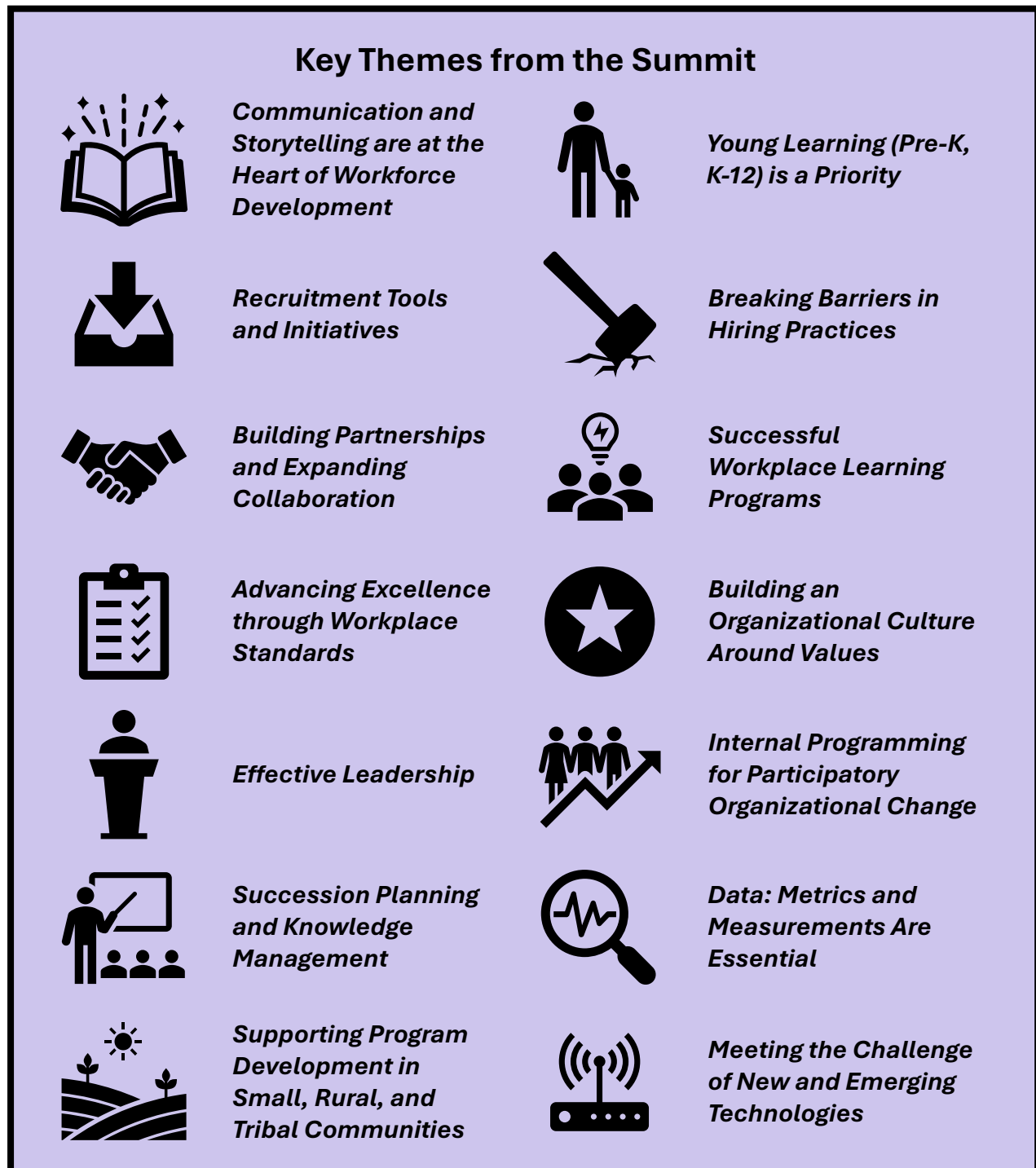
The Summit planners centered the program around three questions: 1. How do we attract and engage a diverse workforce?; 2. What kind of workforce do we need for the 21st century?; and 3. What business models and tools sustainably support workforce needs?

**“In building a workforce for the future, it must be understood that workforce development is everyone’s job.”**

--Carlos Braceras, Executive Director, Utah DOT, Final Keynote for the National Summit on the Future of the Transportation Workforce



The conversations and presentations surfaced a series of fourteen key themes and areas to guide future work, as shown below. The notes from these conversations and presentations do not capture the richness and depth of the presentations and discussions. Instead, these notes can serve as a starting point to help launch further discussion and action as participants work in their own organizations, new networks, and new partnerships, all while the work spreads throughout the transportation field.



### ***Communication and Storytelling are at the Heart of Workforce Development***

Communication and storytelling are key threads that weave through many of the subsequent themes and guiding areas, especially in regard to attracting and engaging a future workforce. To strategically recruit people to the transportation field, it is crucial to:

- Target the right audience the right way. This can be done through storytelling to address personal and professional priorities of the audience.
- Utilize people as the crux of storytelling. Demonstrate why people join and why they stay.
- Tap into people's passions, visions, and experiences. For example, how does an organization's work impact the local community and the world at large?
- Strike a balance of qualitative and quantitative data when telling a story.

In addition, it is important to recognize that communication tactics and needs will look different for every age group and personal background. To connect to each group effectively, strategically utilize different platforms (social media, advertising, etc.) and focus on what values matter to those people the organizations are trying to attract.



Summit participants discussing the key themes during a table-top working session

### ***Young Learning (Pre-K, K-12) is a Priority***

Introducing people into the transportation field must begin with education, even as early as Pre-K. Continuous education through high school provides engagement opportunities that get children interested in transportation from a young age. However, different age groups require different forms of engagement.

Early learning programs (Pre-K and K-8) focus on basic concepts (what is transportation, how to move from point A to point B, etc.), hands-on activities, and new experiences. As students enter high school, education includes career pathways, industry shadowing, and early training programs. In addition to bolstering the transportation workforce, these learning and training opportunities can elevate under-resourced communities and teach about potential career pathways that pay a living wage.

It is also important that children have educators and mentors in addition to their parents. To be effective, these educators and mentors would ideally be provided the proper training tools to pass knowledge onto the children. For teachers, it would be important to allow them the opportunity to have externships so that they can have real-world experience in a transportation field, and also resources like hands-on activity kits and plug-and-play curricula for their classrooms.

### ***Recruitment Tools and Initiatives***

Recruitment primarily relies on two fundamental elements: storytelling and opportunities. To initially draw people into the field of transportation, it is important to utilize authentic storytelling to demonstrate how and why being a part of the transportation workforce is important. For instance, current employees can create content to engage their own communities by tapping into common values and interests. Many organizations have already established workforce toolkits that can be adapted to different communities and other organizations' needs.

To remove barriers, providing people with opportunities is an important first step. Paid internships, apprenticeships, and other forms of financial assistance can be an entryway for young professionals. In addition, new professionals often “learn by doing.” To assist with this effort, effective strategies could include learning opportunities, job shadowing across the industry, relationship building, and placement/navigation assistance to help individuals find the job that is the right fit for them.

### ***Breaking Barriers in Hiring Practices***

Widening the pool of applicants is the first step in tackling current workforce shortages across the transportation workforce. Since some candidates may not have the traditionally required education or certifications, one method for drawing in more

applicants is creating hiring metrics that evaluate a candidate's potential and transferable skills. These metrics might include:

- How adaptable is someone when entering a new topic or field?
- Is the candidate agile, resilient, and innovative?
- What past skills can be utilized in the transportation field?

When adapting requirements, recruiters could also decouple degrees, exams, and licensing from the hiring process. While those prerequisites are often important for the job, the necessary training and requirements could be provided after recruitment.

Furthermore, pilot programs and opportunities can focus on untapped communities—e.g., justice-impacted individuals, veterans, and people with disabilities. To be effective, program and hiring coordinators can adopt tailored approaches and strategies that appeal to different communities and backgrounds. Before hiring, managers and teams could also engage in learning programs that prepare them to work with diverse communities of people such groups from those untapped communities.

One aspect of this approach involves addressing people who are Asset Limited, Income Constrained, and Employed ([ALICE](#)). Strategies for doing so involve providing wrap-around services and flexibility, such as transportation, trade resources, student loan repayment programs, part-time and remote work options, and childcare, that remove barriers for more people to enter the workforce.

Lastly, to reduce the time to hire and shorten workforce gaps, it would be important, to, for example, create review panels before recruitment begins and utilize a talent acquisition team that directly connects teams with potential hires.

### ***Building Partnerships and Expanding Collaboration***

Partnerships and pooling resources are key to creating resilient and high-capacity programs. These partnerships can be of all types and sizes and include both inter- and intra-organizational collaboration across the transportation industry. Within organizations, collaboration and peer review is fundamental for breaking down silos to remove isolation and barriers, and for consolidating resources across multiple divisions to solve common problems. Between different organizations (e.g., schools and colleges working with transportation agencies or businesses), removing financial barriers through initiatives such as free membership programs and tuition coverage were cited as successful models. Facilitating partnerships to create an open platform for resource sharing across the transportation community was one opportunity discussed.

Organizations can collaborate with local communities to gain feedback and provide effective services for addressing the needs of all people. In doing so, organizations should refrain from dictating solutions and instead engage with a process that allows the chosen

solution to be generated by the community they are helping, whether it is new transportation infrastructure or a training program for new entrants.

### ***Successful Workplace Learning Programs***

Organizations work to create training and learning programs across the transportation infrastructure lifetime, from design and operations to maintenance and disposal. Because of the breadth of workforce opportunities, locations, and backgrounds, there is no “one size fits all” approach. To create successful programs, organizations can include the following approaches:

- Use the resources already available in a community to help build them up. Similarly, a community with limited resources can utilize already existing training programs to reduce efforts and duplication.
- Have leadership be directly involved in new employee orientation
- Recognize that team effort, leadership, and employee buy-in make a program successful. If a team proves that a program is successful, leadership will be more likely to provide resources to move forward.
- Include both technical and professional competency skills in training and learning programs. Employees need the communication skills to point out when something is wrong, the freedom to make mistakes and fail, and the knowledge that management will stand behind those decisions.

When developing these programs, coordinators can consider how to create sustainable and long-term learning opportunities that will evolve with changing technologies and standards.

### ***Advancing Excellence through Workplace Standards***

Successful workplaces develop standards that allow people to excel. At a starting point, basic onboarding guides at the institutional level set expectations and provide organization-wide resources. A key takeaway from the Summit was “don’t lower the standards of excellence.” Instead, organizations can provide opportunities that will allow employees to meet their standards and move upward within the organization and industry. Workplace standards should also be reflected in workplace culture, and vice versa, as described in the subsequent section.

### ***Building an Organizational Culture Around Values***

People often care about the values and integrity of an organization. Thus, while money will attract applicants, culture keeps employees. A positive workplace culture includes:

- Listening and engaging. Employees need to feel heard and important, and feel physically and psychologically safe.
- Letting employees know that their family, health, and well-being are more important than work. Work-life balance and flexibility are crucial.
- Providing both mentorship and *sponsorship*. Everyone should have a person that supports and advocates for them.
- The freedom to make mistakes without retribution. When a leader stands by their employee's actions and goals, even with a mistake *is* made, people feel safer, empowering them to try new things and take risks.
- Emphasizing empathy as a key competency in everything from project design to community relations to worker development is an evidence-based approach for success.
- Accountability at all levels throughout the organization.

To reinforce these principles in the workspace, leaders will embody and practice the values they share. As stated during the Summit, “social model the behavior you want emulated.” To support positive behavior and relationships, teach supervisors how to be kind and supportive, while providing space for their own personal development. This practice, along with building trust and infusing empathy into the workplace, is key to creating a strong culture. Storytelling throughout the organization can be used to share and support this culture.

**“Social model the behavior you want emulated.”**

--Karen Philbrick, Former President, Council of University Transportation Centers (CUTC), and Executive Director, Mineta Transportation Institute, Speaker at Reflections on the Summit Goals Panel

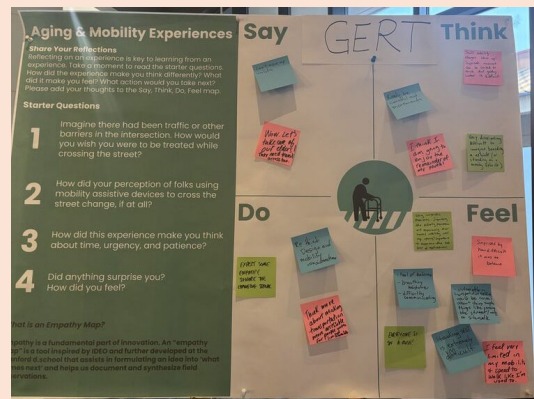


## Building Organizational Culture: Interactive Booths and Presentations

The Summit featured a broad range of poster presentations and interactive booths that reflected the wide range of workforce development issues that are relevant to building organizational cultures around team-building values.

KPMG hosted a resource table addressing workforce transformation issues related to addressing capacity building challenges and skills gaps in an era of rapid technological change.

Leadership from the Massachusetts and Connecticut Departments of Transportation hosted an interactive table that demonstrated ways to use wearable technologies to gather user experience data to facilitate the development of more empathic transportation infrastructure, systems and processes in the workplace. The interactive booth was based on the “Empathy at the Intersection” exhibit held at the 2025 TRB Annual Meeting.



Aging and Mobility Experiences Activity run by MassDOT, CTDOT, and the UConn CT T2 Center.



Meghan Haggerty (MassDOT), Patrick Son (GFT), and Victoria Sheehan (TRB). Patrick is wearing goggles that simulate visual impairments.

### **Effective Leadership**

Workplace standards and culture can assist in creating consistent leadership with clear priorities and directions. There are several strategies that embody displaying effective leadership, including:

- Being respectful of partners and collaborators. While it is important to set internal standards that meet an organization’s goals, responsibilities, and expectations, strong leaders will still respect the collaborators and contractors they work with, even when mistakes are made.



- Practicing listening and receiving feedback, even if the supervisor disagrees.
- Sharing expectations and the reasoning behind those expectations.
- Accountability amongst leadership to uphold the decisions, standards, and culture of a workplace.

Organizations at the Summit showcased leadership programs covering effective leadership practices that can prepare people to advance to leadership levels from supervisor to higher management positions.

### ***Internal Programming for Participatory Organizational Change***

Organizations create dynamic and effective workspaces by committing to internal programming that facilitates continuous change. To achieve these goals, it is important to have both qualitative and quantitative assessments of change, including employee data and feedback. Furthermore, soliciting ideas at both the employee and leadership level facilitates informed decision making, greater buy-in at all levels, and less resistance to new goals and directions. These practices showcase organizational collaboration and openness to change by showing employees that their opinions matter. To ease transitions, organizations would provide care, resources, conflict management, and stress management to help employees adapt and thrive.

### ***Succession Planning and Knowledge Management***

Given increases in retirements across organizations, succession planning is necessary to preserve institutional knowledge across an organization. To minimize gaps, mentors can build a playbook to identify at-risk positions and create roles with over-lapping knowledge. Additional methods include documenting best practices through resource libraries, training modules, and databases. However, to remain adaptable, employees will acknowledge that these practices are flexible as new cultures and technologies emerge. At the same time, “toxic nostalgia”—the expectations of going back to “old ways”—must be avoided to prevent stagnation and set future expectations.

While succession planning often focuses on a top-down approach, growth and learning can be achieved at all levels. Because mentorship is a continuum, employees and leaders can act as both mentors and mentees. To effectively utilize knowledge management, mentors should ideally use resources as a training tool and meet people where they are, sharing best practices that allow their mentees to grow effectively and strategically.

### ***Data: Metrics and Measurements Are Essential***

Data is an effective tool for storytelling, creating good hiring practices, and instilling change. Data, both qualitative and quantitative, can provide feedback from employees and

leadership to identify trends, gaps, and planning opportunities. To begin, an organization can start with the data they have and grow from there. Use what data is accessible and find common threads to tell a story, while acknowledging what data may be missing or needed to create a full picture.

While data are often used to analyze retention metrics, attendees at the Summit suggested focusing on “opportunity choice” instead. It is more important to help people grow in the industry than to keep them in positions they are not challenged by in the organization. Another metric to focus on might be “returnship,” where an employee comes back to the organization in a different position or at a higher level after gaining experience elsewhere.

### ***Supporting Program Development in Small, Rural, and Tribal Communities***

Small, rural, and tribal communities face unique barriers both internally and externally, including jurisdiction, federal legislation, safety, finding the proper tools and resources, and lack of data. Because these communities are often smaller and more remote, there is an increased need for coalition, and pooled resources, in addition to mutual aid between local groups, departments of transportation, and other transportation-related organizations. When these communities work together, they should be cognizant of their mutual interests, differences between the communities, and the local context of each partner.

In addition, once a person leaves a small or rural community, they often will not return, so how do organizations recruit and retain people before they leave? For people that do stay in these communities, they often maintain the same job for a long time. To instill lifelong learning for these employees, what methods can be employed and what competencies do they need to be adaptable?



Ronald Hall, Tribal Transportation Program Manager at the Upper Great Plains Transportation Institute, giving a presentation on workforce lessons from a 2024 Tribal peer exchange

## ***Meeting the Challenge of New and Emerging Technologies***

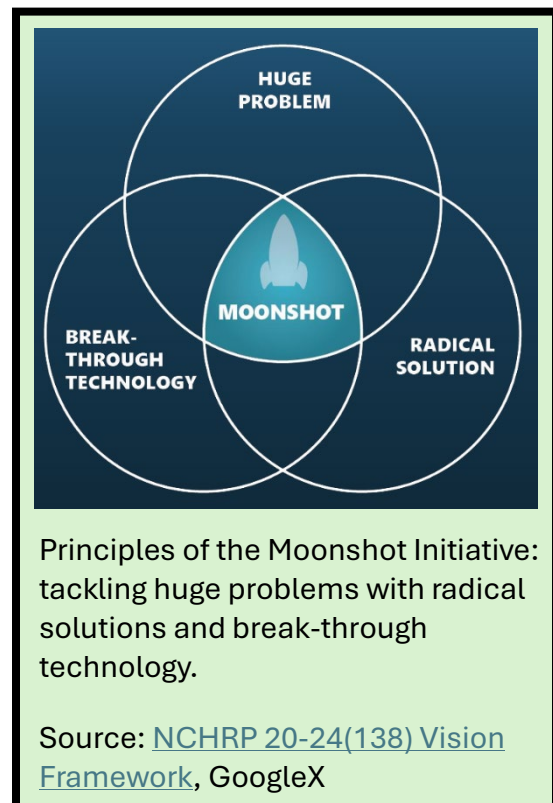
As new skills and emerging technologies are introduced, how can training and learning programs expand rapidly? To be strategic, it is important to look towards mega trends for both strategic and scenario planning to inform change and investments. A noteworthy question is “How can organizations use new technologies, such as AI and data systems, strategically and responsibly?” To tackle this question, organizations can be cognizant about how they are framing technologies, focusing on positive aspects, using AI as a tool to enhance jobs people are already doing, and teaching people new tools and skills. When integrating AI and new technologies, it is important to be intentional and make sure these tools are accessible to all people who want to be more familiar with them.

Regardless of new technologies, people and the labor force will always be needed. AI and new technologies cannot replace critical thinking and teamwork. When analyzing data and making decisions, management can prioritize human jobs over profit, identify ways to imbue transformational technologies with human values, and focus on human aspects of these technologies rather than the money saved and jobs lost.

## ***Conclusions: Moving Forward***

The final day of the Summit opened with an overview of the [AASHTO Moonshot initiative](#). During the past few years, [TRB and AASHTO](#) have launched this initiative to advance a vision of how to transform transportation systems — and transportation agencies—to better address economic and community needs. Eleven state DOTs are advancing “moonshots” related to safety, technology, energy, connectivity, and access to opportunity. Key to the success of these initiatives is leadership, cross-disciplinary thinking, partnerships, and a skilled and adaptive workforce.

The opening session was followed by a plenary addressing ways that artificial intelligence and interactive employee empathy simulations can lead to more ethical and empathic workforce and team-building practices. Throughout the Summit, innovation and excellence in workforce development were constant callouts. More work is necessary to highlight and share the many efforts,



especially at the local level, that are forging new practices and opportunities to build a resilient and skilled future workforce.

A strong sentiment from the Summit was that building the future workforce “is a righteous and patriotic act.” To be successful, decision making around programs and investments leadership, as well as rank and file, must “own the high ground” and choose directions that are right for a communities’ and organization’s values and standards. Defining and displaying those values and standards can only be proven through action and practice, as well as words.

A key sentiment brought forward at the conclusion of the Summit was to continue building a “learning community” around workforce development. As was displayed in multiple presentations, there are existing organizations and networks that are pursuing important and innovative work across the field. In one panel, [APTA](#), [WTS](#), [COMTO](#), [AASHTO](#), [CUTC](#), and [TRB](#) all joined together to encourage engagement and cross-fertilization in the work ahead. When these organizations spoke at the Summit, they all agreed that no one organization has all the answers or is “leading” the conversation, but they all value interacting with each other, joining in each other’s conferences, promoting events to each other’s members, and valuing the interactions.



The [National Network for the Transportation Workforce](#), the lead supporter of the Summit, will be providing forums and opportunities to continue the conversation in real time. Resources will continue to be posted on their website, and updates and engagement with Summit participants and others are found on their [LinkedIn](#) site.

## **Resources**

Presenters provided supplemental information for the transportation workforce community to share in the information, program innovations, and policy recommendations that they discussed at the Summit. [Click here to access the Workforce Briefings](#). The [TRB Summit Schedule](#) has the full list of presenters, and links to their presentations.

Additional links to toolkits, career pages, training programs and modules, and leadership training, discussed at the Summit, are as follows:

### *Workforce and Recruitment Toolkits*

- [APTA - Scheduling Practices Toolkit](#)
- [FHWA - Every Day Counts 7: Strategic Workforce Development Toolkit](#)
- [National Center for Applied Transit Technology – Tech University](#)
- [National Center for Applied Transit Technology - Technology Toolbox](#)
- [Transit Workforce Center - Recruitment Toolkit](#)
- [Transit Workforce Center – Transit Workforce Data Dashboard](#)
- [University of Minnesota LTAP – Workforce, Recruitment, and Outreach Guides](#)

### *Family and Financial Assistance*

- [United for ALICE \(Asset Limited, Income Constrained, Employed\)](#)
- [Child Care Assistance & Family Support for Oregon Families](#)

### *Empathy as a Core Competency*

- [MassDOT Empath at the Intersection](#)

### *Apprenticeship, Job, and Career Pages*

- [Apprenticeship USA - Apprenticeship Finder](#)
- [Apprenticeship USA – Partner Builder](#)
- [Oregon Bureau of Labor and Industries - Apprenticeship Resource Directory](#)
- [Texas DOT – ConnectU2Jobs Program](#)
- [Transit Workforce Center - Career Explorer](#)
- [Transit Workforce Center - Apprenticeship and Mentorship](#)
- [University of Minnesota LTAP – Transportation Maintenance Careers](#)

### *Pre K-12 Training Programs and Modules*

- [Maryland Transit Administration – Red Line High School Internship Program](#)

- [Mineta Pre-K Curriculum](#)
- [Mineta Elementary Lesson Plans](#)
- [Mineta Summer Transportation Academy](#)
- [Port of Long Beach Academy of Global Logistics at Cabrillo High School](#)
- [Southern Plains Transportation Center - National Summer Transportation Institute](#)
- [Washington Transportation Camp](#)

#### *Adult Training Programs and Modules*

- [AASHTO Technical Training Solutions - Courses](#)
- [ATSSA – Roadway Safety Training & Certification](#)
- [Front Range Community College – Highway Maintenance Management](#)
- [Montana Local Technical Assistance Program](#)
- [National Local & Tribal Technical Assistance Program Association - Resources](#)
- [Road Safety Champion Program – “Roadway Safety 101” training series](#)
- [Texas Construction Career Academy](#)
- [University of Minnesota Local Technical Assistance Program \(LTAP\)](#)
- [Western Transportation Institute – Community-Engaged and Transformational Scholarship](#)
- [Western Transportation Institute – Public Lands Transportation Fellows Program](#)

#### *Leadership Training*

- [AASHTO Leadership Development Series](#)
- [APTA Leadership Programs](#)
- [Mineta Leadership Academy](#)
- [University of North Carolina at Chapel Hill – Transportation-Public Health Leadership Program](#)
- [WTS International – Leadership Development & Training](#)

#### *Asset Management Plans*

- [Maryland DOT – 2025 Strategic Asset Management Plan](#)
- [New Mexico DOT – 2022 Transportation Asset Management Plan](#)