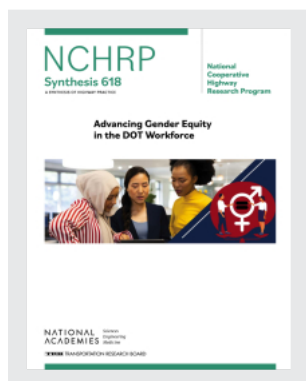


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NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

NCHRP SYNTHESIS 618

Advancing Gender Equity in the DOT Workforce

A Synthesis of Highway Practice

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2024

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

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Highway administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to highway administrators and engineers. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire highway community, the American Association of State Highway and Transportation Officials—through the mechanism of the National Cooperative Highway Research Program—authorized the Transportation Research Board to undertake a continuing study. This study, NCHRP Project 20-05, “Synthesis of Information Related to Highway Practices,” searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute an NCHRP report series, Synthesis of Highway Practice.

This synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

FOREWORD

By Trey Joseph Wadsworth

Staff Officer

Transportation Research Board

The objective of this synthesis is to document current department of transportation (DOT) practices related to advancing gender equity in DOT workforces. Women comprise only 15% of the transportation workforce, and this statistic declines in executive and leadership positions and does not reflect those who may not identify as men or women. For women of color, the numbers are even more disparate.

This synthesis gathered information through a literature review, a survey of DOTs, and follow-up interviews with selected DOTs. Six case examples provide greater insight into current gender equity practices, barriers to implementation, data collection and accountability processes, and assessment findings.

Stephanie Ivey, Ph.D., of the University of Memphis, and Susan Gallagher of Montana State University led a team that collected and synthesized the information and wrote the report. The members of the topic panel are acknowledged on page iv. This synthesis is an immediately useful document that records practices that were acceptable within the limitations of the knowledge available at the time of its preparation.

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SUMMARY

Advancing Gender Equity in the DOT Workforce

Transportation agencies face significant workforce challenges as staff are lost to retirement, high turnover rates, and competition with other industries. To address staff shortfalls, state departments of transportation (DOTs) will need to diversify. While women make up close to half of workers in the national workforce, they remain underrepresented at transportation agencies and tend to be siloed in administrative positions. As women outpace men in the attainment of higher education degrees, successful practices and policies that attract, retain, and advance women at state DOTs will become increasingly important. Beyond meeting staffing needs, there is a growing recognition that workforce diversity supplies the variety of perspectives and skill sets needed to successfully solve complex transportation challenges.

Recognizing the underrepresentation of women on staff, many state DOTs have implemented a variety of programs, policies, and practices to address the imbalance between the number of men and women working in different occupational categories. Transportation agencies also recognize the need for better systems to monitor and track workforce diversity (U.S. DOT 2021). The objective of this synthesis project is to document current state DOT practices related to advancing gender equity in the workforce, as well as the data collection and assessment practices currently utilized by state DOTs to evaluate impacts.

A literature review was conducted to synthesize available information on the challenges and benefits of attaining a gender-diverse transportation workforce, available data to track progress, strategies, and practices aimed at mitigating women's low representation in the workforce across the full employment life cycle. Key findings from the literature highlight a variety of recruitment, retention, and advancement strategies designed specifically to address barriers to women's full participation in the workforce. Recruitment strategies and practices prevalent in the literature included (1) providing early and repeat exposure to transportation career opportunities to diverse youth, (2) providing diverse role models and mentors, (3) establishing a culture that values diversity, (4) implementing an equitable hiring process, and (5) building community partnerships. Retention strategies encompassed practices to (1) ensure equal access and support for professional development, (2) foster a culture of inclusivity, (3) address harassment and workforce climate issues, and (4) provide flexibility to support work-life balance. Training, mentorship, and succession planning were additional strategies emphasized in the literature to facilitate women's advancement into leadership positions. The literature underscored the need to establish workforce goals and to assign accountability while noting that existing data collection systems are inadequate for the purposes of large-scale analysis. There is a notable gap in the literature on evidence of the impact of specific practices on gender equity outcomes.

A survey was distributed to all the DOTs of all 50 states, as well those of Puerto Rico and the District of Columbia, asking for information about current practices related to advancing gender equity in the workforce. The survey asked for information under four broad

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categories: (1) organizational and accountability structure at the state DOT; (2) employment life-cycle practices (to include recruitment, retention, and leadership/advancement practices); (3) data collection, assessment, and dissemination practices; and (4) organizational principles and leadership actions to promote gender equity. Forty-five survey responses were received (from 43 state DOTs, the District of Columbia DOT, and the Puerto Rico Highway and Transportation Authority), an 87% response rate. Eleven respondents indicated they do not have current practices or policies designed to advance gender equity within their workforce. The survey findings confirm that most state DOTs do have multiple recruitment and retention practices in place. Recruitment practices are the most likely to be formally assessed, and more agencies have evidence of impact supported by data for recruitment practices than for retention or advancement practices. Fewer advancement and leadership practices were reported, with executive coaching/leadership programs and cross-training or rotation programs being the most common. Responding agencies use a variety of metrics to gauge progress toward gender equity goals, and most disaggregate data by both gender and race or ethnicity.

In-depth interviews were conducted with the Alaska Department of Transportation and Public Facilities (AK DOT & PF), Minnesota Department of Transportation (MnDOT), Tennessee Department of Transportation (TDOT), Texas Department of Transportation (TxDOT), Vermont Department of Transportation (VTrans), and Washington Department of Transportation (WSDOT) to gather more detailed information about practices employed at a representative sampling of agencies. The interviews highlighted the importance of data collection and analysis to inform the design of interventions.

Without data and systems in place to track workforce diversity over time, it is difficult to make conclusions about the impact of policies and practices designed to enhance gender equity. Future research on data collection processes, assessment methodologies, and impacts of various workforce strategies and accountability structures will assist state DOTs in implementing evidence-based practices to advance gender equity.

CHAPTER 1

Introduction

Background

In 2021, the U.S. Department of Transportation issued a Request for Information on Transportation Equity Data. In the summary report, commenters noted a lack of representation of women in transportation agencies and a need for better systems to monitor and track transportation workforce diversity (U.S. DOT 2021). State departments of transportation (DOTs) across the United States have implemented a variety of programs, policies, and practices to address the imbalance between the number of men and women working in different occupational categories within agencies. The motivation for this synthesis is to document current practices aimed at addressing gender equity. The study also explores the data collection and analysis tools and methods undertaken at state DOTs to track progress and assess the impact of implemented policies and practices. Information gaps are identified and suggestions for research to address gaps are provided.

There is a lack of readily attainable and detailed data on the current gender composition of the workforce at state DOTs. A significant portion of the state DOT workforce is made up of non-traditional occupations for women (i.e., those made up of less than 25% women workers), which increases the challenges agencies face in addressing the gender imbalance across all occupational groupings (Godfrey and Bertini 2019). Potential female applicants may find the prospect of a male-dominated workplace less hospitable or supportive. As women begin to outpace men in the attainment of higher education degrees and as transportation agencies face significant workforce challenges due to retirement, successful practices, and policies that attract female workers to state DOTs will become increasingly important.

For the purposes of this report, *gender equity* is defined as fair and just distribution of access to opportunity, benefits, and responsibilities between men and women in all areas of work. *Gender* refers to socially constructed attributes associated with being male and female (European Institute for Gender Equality, n.d.). As much as possible, the authors focused on state DOT practices related to staff identifying as women in recognition of the fact that a person's gender identity may not align with the sex assigned to them at birth (United Nations 2021). However, demographic information collected on gender at state DOTs does not always extend beyond binary male/female categories. In some cases, state law restricts the type of gender data that may be collected. In addition, voluntary reporting by applicants and incumbent employees may limit the amount of demographic data available as some applicants and staff decline to provide this information.

Synthesis Objectives

The main objective of the synthesis project is to document current approaches at state DOTs to advance gender equity in the workforce. The scope of the synthesis is limited to the internal workforce at state DOTs and does not address practices focused on contracted

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workers or services. Survey and interview questions were organized around five thematic questions:

1. What practices are state DOTs currently implementing to promote gender equity in their workforces?
2. What policies and leadership actions are state DOTs undertaking to advance gender equity in the workforce?
3. What data do state DOTs collect, track, and analyze related to gender equity in their internal workforces?
4. What data or assessment information is utilized by state DOTs to determine the impact of policies and practices designed to advance gender equity?
5. What organizational structures are in place to ensure accountability?

Survey and interview questions query employment life-cycle policies and practices for employees throughout the career continuum. Questions about agencies' outreach and recruitment practices encompass engagement efforts with education institutions, efforts to diversify applicant pools, marketing of job openings, and interview, hiring, and onboarding processes. Recruitment policies and practices include efforts to improve workplace climate and communication, enhance work-life balance and family-friendly policies, and provide staff with opportunities for training, mentorship, networking, professional development, and personal growth. Advancement practices focus on succession planning, efforts to prepare women for leadership positions, and performance review and promotion practices.

Information is provided on leadership practices that prioritize diversity and inclusion within agency communications, strategic planning, staffing structures, or other program support, as well as mechanisms to enhance staff accountability for meeting equity goals. Details about how demographic data are collected and analyzed at different agencies to create actionable strategies are also presented. Finally, the extent to which agencies have the tools to isolate workforce outcomes based on overlapping personal characteristics or identities—such as gender and race—is explored in conjunction with strategy implementation that more broadly addresses diversity, equity, and inclusion at state DOTs.

Synthesis Approach and Organization

The synthesis utilized three approaches to obtain information on the topic: (1) a literature review, (2) an online survey distributed to state DOTs, and (3) interviews with representatives from a subset of state DOTs.

An extensive literature review was first conducted to obtain background information. The literature review encompassed keyword searches of academic journal articles, government reports and policy documents, and online databases and sources on the following topics:

- Evidence underlining the importance of a diverse workforce.
- Challenges facing state agencies in achieving gender equity.
- Recommended or implemented strategies and practices to advance gender equity at transportation organizations.
- Existing sources of workforce data, data collection, and assessment practices in use at state DOTs.
- Background on intersectionality and the purpose behind diversity, inclusion, and equity efforts.

Second, an online survey was distributed to voting members of the AASHTO Agency Management Committee asking for information on practices employed at their agencies to advance gender equity in the workforce. The survey incorporated questions on organizational structures

and distribution of responsibility among staff for gender equity initiatives, current employment life-cycle practices (i.e., recruitment, retention, and advancement practices), data collection, assessment and accountability practices, and organizational principles and leadership actions currently in use to promote gender equity in the agency's workforce. The survey was distributed to all 50 states and the District of Columbia and Puerto Rico. Responses were received from 43 state DOTs and the DOTs of the District of Columbia and Puerto Rico (87% response rate).

Third, the authors selected state DOTs for follow-up interviews to obtain more detailed information about the gender equity practices employed at individual agencies. States were selected based on the range and diversity of their current gender equity practices as reported in their survey responses and their willingness to participate in a follow-up interview. Case examples were developed for six geographically representative states to provide more detail on survey responses, and are based on virtual interviews with representatives from the participating state DOTs.

The synthesis report is organized into five chapters.

- Chapter 1: Introduction—provides background information on the topic, scope, and objectives for the synthesis.
- Chapter 2: Literature Review—summarizes major findings from the literature on the topic.
- Chapter 3: Survey Results—presents findings from the survey of state DOTs on current practices for advancing gender equity.
- Chapter 4: Case Examples—provides additional detail on practices and strategies in place at six state DOTs based on interview data.
- Chapter 5: Summary of Findings—summarizes key findings and identifies information gaps and suggestions for additional research.

The survey questionnaire is provided in Appendix A, and survey responses appear in Appendix B.



CHAPTER 2

Literature Review

Despite recent improvements, gender inequality continues to be a significant barrier to building a just and equitable society. Gender-based discrimination and biases are still prevalent, and women and girls continue to confront cumulative challenges in their pursuit of education and work prospects, particularly in science, technology, engineering, and mathematics (STEM) disciplines (National Academies of Sciences, Engineering, and Medicine 2020). These issues hurt women and girls as individuals and limit the potential of entire communities and societies, impeding the advancement of sustainable development and universal human rights (White House 2021). Increasingly, there is recognition of the value of workforce diversity in supplying the variety of perspectives and skill sets needed to successfully solve complex future challenges, particularly in transportation, and hence the need to advance gender equity (Alexander 2020; Ivey et al. 2019; Puentes et al. 2019).

Research has found that implementing programs that are not evidence-based, cogent, or cohesive with workplace culture can result in employee backlash and other negative impacts (Dobbin and Kalev 2016; Keen et al. 2021). Owing to these factors, strategies and practices to advance gender equity need to involve a multifaceted approach that addresses the root causes of gender inequality and gives women the opportunity to prosper in all parts of life, including at work.

To better understand research and findings related to gender equity, both broadly across industries and specifically for transportation, this section first examines the literature pertaining to the benefits of a gender-inclusive and equitable workforce, challenges to achieving gender diversity in the transportation workforce, and strategies to advance gender equity. This is followed by a discussion of the literature related to data and assessment and diversity, inclusion, and intersectionality.

Business Case for Gender Equity in the Workforce

There are numerous reasons that state DOTs must work toward gender equity. The first relates to the talent pipeline. Transportation agencies face significant workforce challenges as staff are lost to retirement, high turnover rates, and competition with other industries. When gender diversity is not strategically considered, applicant pools may be especially limited, as women make up nearly half of the U.S. workforce and a significant fraction of many of the occupations that are essential to state DOT operations (U.S. Bureau of Labor Statistics 2022). Further, the rates that women are enrolling in and graduating from institutions of higher education are increasing at a much greater pace than that for men (U.S. Bureau of Labor Statistics 2022), with women now accounting for more than half of the college-educated workforce (Fry 2022). Thus, without explicitly targeting diverse genders in agency recruitment, retention, and advancement strategies, organizations will come up short in the quest for qualified talent.

Even more importantly, organizations that are more gender diverse see many positive outcomes. They are more innovative and realize greater profitability (Thomas 2023; Hunt et al. 2015, 2018). More creative solutions are developed to address problems when gender diversity is higher (Sánchez-Apellániz and Triguero-Sánchez 2012). Organizations with more women in leadership are more collaborative, employees are more likely to be attracted and retained, and policy equity is enhanced (Joshi et al. 2022; Lawson et al. 2022; Thomas 2023; Woolley et al. 2010). This is particularly important for transportation agencies, where the challenges faced are more complex than ever before and require innovative solutions (Transportation Research Board 2018). The caveat is that it is not enough to put policies in place and develop programs intended to support gender equity and increase gender diversity in the workplace. Unless an organization develops a culture where diversity is valued, where women are well-represented in leadership, and where employees trust one another and their leadership, these efforts largely fail (Ely and Thomas 2020).

In a study focused on the transportation workforce, Cronin et al. (2022) highlighted several leading organizations that have realized more innovative and creative work, as well as better performance and financial results, through having a gender-diverse workforce consisting of people of different racial, ethnic, and cultural backgrounds. Another study, conducted by Drawe and Zoghi (2021), surveyed 161 transportation professionals and 21 college students on a variety of issues related to gender equity. The researchers found that 87% of female professionals and 76% of male professionals felt that increasing gender diversity and equity would result in benefits for all employees as well as for the organization as a whole. All students, regardless of gender, supported this statement as well (Drawe and Zoghi 2021). Participants were also asked whether increasing gender diversity in transportation would result in a more inclusive transportation system design. Approximately 75% of female professionals, 60% of male professionals, and 100% of college students indicated they did believe increased gender diversity would lead to transportation system design that reflected more diverse user needs and travel patterns (Drawe and Zoghi 2021).

Thus, there is a clear business case for increasing gender equity in the state DOT workforce. However, the importance and value of gender diversity (and diversity as a whole) must be steeped within organizational culture for benefits to be realized. This message should resonate with DOT leadership and be communicated with staff throughout an organization to increase the value placed on diversity—both for women and other underrepresented populations.

Challenges to Achieving Gender Equity in the Transportation Workforce

The transportation workforce is made up of workers with diverse backgrounds and skill sets. Many occupations common within state departments of transportation belong to STEM, technician, and craft occupational categories, which report some of the smallest percentages of women workers nationally—for instance, automotive technicians and mechanics (1.6%), construction trades supervisors (3.6%), industrial truck and tractor operators (8.6%), surveyors, cartographers and photogrammetrists (19.9%), and surveying and mapping technicians (8.8%) (U.S. Department of Labor 2021). Women are also nationally underrepresented in engineering occupations (15%) and computer occupations (25%), which likewise constitute a significant portion of transportation agency jobs (Martinez and Christnacht 2021). This disparity presents many challenges for state DOTs seeking to increase gender diversity within their agencies' workforce.

While women have increasingly closed the gap with male counterparts in terms of overall participation in the national workforce, making up 47.3% of employed workers in 2017 (Gumber and Sullivan 2022), much work remains to be done to reach gender parity within transportation

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organizations. A study of new hires at the U.S. Department of Transportation observed that 89% of engineering positions were filled with male employees (Kermanshachi and Sadatsafavi 2018). Rouhanizadeh and Kermanshachi (2021) analyzed a database of approximately 18,000 U.S. DOT employees from 2011 to 2017 and found that women were overrepresented in financial management, human resources, and contracting occupations and underrepresented in other job categories within the agency. Analysis of federal transportation workforce data also identified fewer women in high-level positions (Rouhanizadeh et al. 2020).

Owing to the risk of women being siloed in certain job categories or lower-level positions, a 2007 report on racial and gender diversity in state DOTs, *TCRP Report 120/NCHRP Report 585: Racial and Gender Diversity in State DOTs and Transit Agencies: A Benchmark Scoping*, advocated for agencies to set specific hiring goals aimed at increasing diversity throughout all levels and occupational categories within the agency. Integration by gender across jobs and occupations and female representation in upper management levels were both identified as factors that create a hospitable environment for women in the industry (Hubert H. Humphrey Institute of Public Affairs 2007).

Majority male workplaces have been associated with certain negative outcomes for women workers. A Pew Research Center survey conducted in 2017 found that women employed in majority male workplaces are more likely to say they must prove themselves at work to be respected and are less likely to say they are treated fairly in recruitment, hiring, promotion, and advancement decisions than are women who work in majority female workplaces (Parker 2018). Women with female supervisors are less likely to be sexually harassed than when supervised by men (Caceres-Rodriguez 2013). Experiences or observance of harassment, discrimination, or incivility at work were found to negatively affect job satisfaction and to lead to poor job performance, absenteeism, or turnover (Morrow et al. 2011).

On the other hand, women have much to gain by entering male-dominated occupations and industries in terms of earning potential. A persistent wage gap of approximately 20% on average between male and female workers is observed nationally across all occupations and industries, and progress toward its elimination has stalled since 2000 (Foster et al. 2020). Occupational segregation by gender was found to explain a third of the gender wage gap in a recent analysis (Foster et al. 2020). The pay gap was smallest in traditionally male-dominated industries like construction, and largest in female-dominated industries like healthcare (Foster et al. 2020). A Government Accountability Office (GAO) report (2023) noted increases between 2018 and 2021 in women in management in transportation and construction industries as well as a smaller wage gap between men and women managers in these industries.

Across all industries, the pay gap for female managers was found to be greater for women over 40 years old, married women, and women with at least one child living in the household (GAO 2023). This finding may relate to women with children taking time out of the workforce, resulting in an accumulated wage disadvantage over time (Foster et al. 2020). Significantly, mothers earn less overall compared to their female counterparts without children (Foster et al. 2020). The fact that no wage disadvantage is observed for fathers likely corresponds to differing expectations regarding childcare. Women are more likely to leave the workforce after a maternity leave than at any other point in their careers and, globally, they spend at least double the amount of time on unpaid care work than men do (Ng and Acker 2020).

These findings are particularly relevant to state departments of transportation given that workers in the transportation sector reported experiencing more work conflict with family life than do workers in other sectors (Puentes et al. 2019). Studies point to rigid structures at state DOTs that allow less flexibility for telework or flexible work schedules as creating particularly negative impacts on female workers or potential recruits (Metro et al. 2019, Ng and Acker 2020).

Gaps in employment may also negatively affect women's promotion eligibility when promotion opportunities are exclusively based on years of service as is the case in some state DOT occupational categories (Rouhanizadeh and Kermanshachi 2021).

Other challenges that state DOTs may face in implementing strategies to advance gender equity in the workforce relate to differing state governing structures and hierarchies. State legislation or directives from state governors can limit what criteria human resource departments are able to consider for the purposes of employment decisions at state agencies (see, for example, McGee 2023). Additionally, some states' human resource functions are managed exclusively at the state level, some at the agency level, and others a mixture of both. The additional layer of union or civil service policies and procedures that may exist for some or all categories of employees at state DOTs may also influence the level of flexibility agencies have in implementing equity initiatives. The literature is limited to the impacts of various governing structures on equity outcomes. Nurse (2005) found no significant differences between union and non-union employees' perceptions of equitable treatment in performance evaluations. Battaglio and Condrey (2006) noted that the trend among state agencies to move away from civil service systems, with strict rules and procedures, to more decentralized and market-based systems has had mixed results depending on implementation; in some cases, the transition has resulted in loss of job security, reduced appeals processes, and lack of accountability. Wilson (2006) predicted that the move from tenure systems to at-will employment at public agencies will disproportionately negatively affect African Americans as employers gain broader discretion in dismissal decisions, opening the door to discrimination-based dismissals. Carefully planned and implemented civil service reforms have proven more successful in enhancing flexibility for employers while keeping staff protections in place (Battaglio and Condrey 2006).

Strategies and Practices to Advance Gender Equity

The National Academies of Sciences, Engineering, and Medicine (2021) report *Looking Ahead at the Cybersecurity Workforce at the Federal Aviation Administration* describes the stages of an employee's life cycle as attraction, recruitment, onboarding, development, retention, and separation. Women frequently do not advance through all career stages due to a variety of factors, including access and work-life integration issues (Rouhanizadeh and Kermanshachi 2021). Godfrey and Bertini (2019) emphasize that approaches used to attract women to an industry must continue in the workplace to ensure the retention of women. This implies that appropriate attention must be given to all phases of the employee life cycle to enhance gender equity.

Various studies have been conducted on contextual tactics and practices to achieve gender equity in the transportation workforce. The aim of this section is to present an overview of these studies, focusing specifically on strategies and practices to advance gender equity in recruitment, retention, advancement, and leadership in the transportation profession.

Recruitment

Given that members of underrepresented groups in the transportation workforce, such as women and people of color, frequently possess latent abilities, departments of transportation will profit from the implementation of a plan to recruit people from these underutilized groups. Many STEM fields are struggling to attract women to the sector, even as the number of women in the workforce increases (National Science and Technology Council 2021). The fact that the transportation sector is facing increasing shortages of engineers underscores the need to focus on promoting inclusive outreach and recruitment efforts (Godfrey and Bertini 2019). Construction, operations, and maintenance fields face even greater challenges and workforce shortages,

particularly with the influx of capital projects and evolving skill-set requirements due to technology integration. These industry segments struggle with attracting a gender diverse workforce even more so than in engineering (Ivey et al. 2021; Ivey et al. 2019).

The literature points to a variety of strategies to encourage young women to pursue non-traditional career paths. Active learning and team-based approaches in the classroom have been found to foster the inclusion of young women (National Academies of Sciences, Engineering, and Medicine 2020). A comprehensive set of experiential learning opportunities in both formal and informal settings increases the likelihood young women will choose career paths in STEM disciplines. According to Hanson and Murakami (2010), field trips, educating school counselors about opportunities for women in engineering, and supporting summer internships and semester-long apprenticeships for high school and college students are some strategies to engage young people. Internships and apprenticeships are two examples of experiential learning that are engagement-oriented and effective for drawing diverse workers to the transportation industry. These programs can be especially helpful for women, who are unlikely to have any prior experience in these industries and who might not feel comfortable in traditionally male job roles (Ivey et al. 2019). Social media platforms like Instagram, Twitter (now X), LinkedIn, and YouTube can all be used as methods to successfully engage youth and other potential workers (Harper et al. 2018; Hanson and Murakami 2010). Messaging needs to focus on the societal impact of transportation, as this is influential for young women and girls (National Academies of Sciences, Engineering, and Medicine 2020; Ivey 2019).

Additionally, girls need early and repeated exposure to these kinds of educational opportunities to enter STEM-related fields (Transportation Research Board 2021; Ivey 2019). Recent studies show that exposure of students to STEM careers is critical in the first and third grades, as 53% of new STEM workers indicated learning about STEM career paths at this age (littleBits 2019). There is also evidence that early exposure to STEM results in students having more positive perceptions, greater interest, and better preparation to take courses in these fields (Dejarnette 2016). In addition, gender stereotypes negatively affect girls' interest and pursuit of STEM courses in middle and high school, which are crucial for postsecondary preparation in STEM disciplines. These gendered stereotypes begin as early as age three, making it crucial that students are exposed to STEM content at a very early age (Mulvey and Irwin 2018). Other studies have shown that by first grade, gendered stereotypes are affecting girls' interest in computer science and engineering (Master et al. 2021) and perceptions of potential in robotics (Master et al. 2017), although there is no evidence of difference in academic ability based on gender (Law et al. 2021).

Meyer et al. (2021) discussed recruitment strategies for the younger generation, particularly for diversifying the workforce in the transportation sector and attracting and retaining Gen Z workers (born between 1990 and 2010). According to the researchers, developing connections with colleges and universities has been one of the most effective state DOT recruitment techniques. Other noted strategies included involving staff in recruitment activities, conducting outreach to minority-serving educational institutions, and developing and marketing career ladders that demonstrate job stability, the importance of work-life balance and flexibility in scheduling, support for professional development, and the creation and promotion of a workplace that is sensitive to cultural diversity (Meyer et al. 2021). Similar findings were reported by Harper et al. 2018.

Godfrey and Bertini's (2019) study on women in transportation analyzed key strategies to recruit and maintain women in the industry. Prominent women in the transportation sector stated that networking, engaging with young people, and being a member of professional groups are important for attracting women to transportation (Godfrey and Bertini 2019). Another study highlighted the importance of mentoring and role models (National Academies of Sciences, Engineering and Medicine 2020). Strategic methods for achieving diversity and inclusion broadly in the transportation workforce were examined by Ivey et al. (2019). The research highlighted

the importance of an organization's leadership in supporting and clearly articulating the value of diversity in the successful recruitment and retention of women. Another study, which focused specifically on inclusive workforce practices for the DOT workforce, identified numerous approaches to strengthen recruitment activities, especially for women (Ivey et al. 2021). One strategy emphasized a focus on community partnerships, particularly with organizations serving underrepresented groups of interest, such as Women's Foundations, to draw in recruits. This finding was supported in other research as well (Cronin et al. 2022; Southeast Transportation Workforce Center 2020). Marketing and communication strategies ensuring imagery and language are inclusive of the potential employee pool (including diverse genders), as well as highlighting beneficial community impacts of DOT activities, were noted by Ivey et al. (2021).

Alexander (2020) examined effective strategies for attracting women to the transit workforce. The report underscores the importance of early outreach focused specifically on the recruitment of women as a key element of an effective recruiting plan. The report emphasizes that promoting transportation careers in schools is a step toward drawing more women into the industry and highlights the need to better communicate transit career pathways and enhance the image of the transit industry in communities to make it more attractive to women (Alexander 2020). The author additionally suggests the creation of specific goals around the recruitment of women and the review of hiring practices for gender bias as noteworthy strategies (Alexander 2020).

The National Academies released a report in 2020 focused on addressing the underrepresentation of women in science, engineering, and medicine. The report outlined a series of strategies to improve recruitment of women to traditionally male-dominated fields. One such strategy is to expand recruitment networks and move away from referral hiring, which typically limits the diversity of candidate pools. Another strategy is to scrutinize how job opportunities are communicated and make sure language is inclusive and fosters a sense of belonging for women. Examining the hiring process for bias and addressing findings, using structured interviews with candidates, providing relevant training for those on hiring panels, ensuring that candidate assessment metrics are developed prior to review of candidates, and creating a framework for accountability were also strategies deemed critical to recruiting a more gender-diverse workforce (National Academies of Sciences, Engineering, and Medicine 2020). The importance of providing interns and employees with a living wage was emphasized as particularly important for attracting women, as they are more likely to be responsible for caring for others besides themselves (National Academies of Sciences, Engineering, and Medicine 2020).

To produce a strong and resilient workforce for state DOTs, it is critical to improve diversity, fairness, and inclusion in the hiring process (Cronin et al. 2022). Using demographically diverse interviewing panels to support occupational areas with low representation from underrepresented groups is highlighted as a strategy to advance gender equity in multiple studies (Cronin et al. 2022; National Technology Council 2021). Requiring hiring organizations to use a uniform evaluation system when evaluating candidates' applications and interviews is another strategy noted in the literature (Cronin et al. 2022; National Academies of Sciences, Engineering, and Medicine 2020).

For a DOT to realize positive outcomes related to gender equity, translation of effective practices from other agencies or other industries can be very helpful. Krop et al. (2020) explored best practices used by airports, contractors, other industries, and organizations in building a diverse workforce. Organizations both inside and outside the aviation sector are implementing workforce programs that satisfy their capacity and expertise needs while diversifying their workforce, especially related to gender, by using emerging technologies, replicating best practices from other industries, stepping up outreach initiatives, and utilizing strategic partnerships. Many of these strategies have been demonstrated to be effective for years. Emphasizing training and education, work-life balance, freedom of location, and alluring financial and compensation/benefits

packages has been documented to improve recruitment, training, and retention of diverse workers in transportation as early as 2003 (Ewoldson 2020). Moreover, tactics that have been shown to be successful in attracting and retaining underrepresented groups can be advantageous to all workers. Agencies can anticipate gains in workforce diversity by creating recruitment and hiring processes that integrate special strategies for different demographic groups (Ivey et al. 2019). However, for recruitment activities to be effective in increasing gender diversity, a comprehensive recruitment plan with specific goals related to gender equity should be developed (Alexander 2020).

Strategies and practices prevalent in the literature for advancing gender equity in the recruitment process are presented in Figure 1 and can be summarized as follows:

- **Early and repeat exposure to the transportation industry:** Marketing the transportation sector early and often is especially important for young women to ensure they consider it as a career path, especially because of the large number of STEM jobs and the male-dominated environment. Providing experiential learning opportunities and interactions with individuals in the field and demonstrating the community impacts of transportation are critical. For young

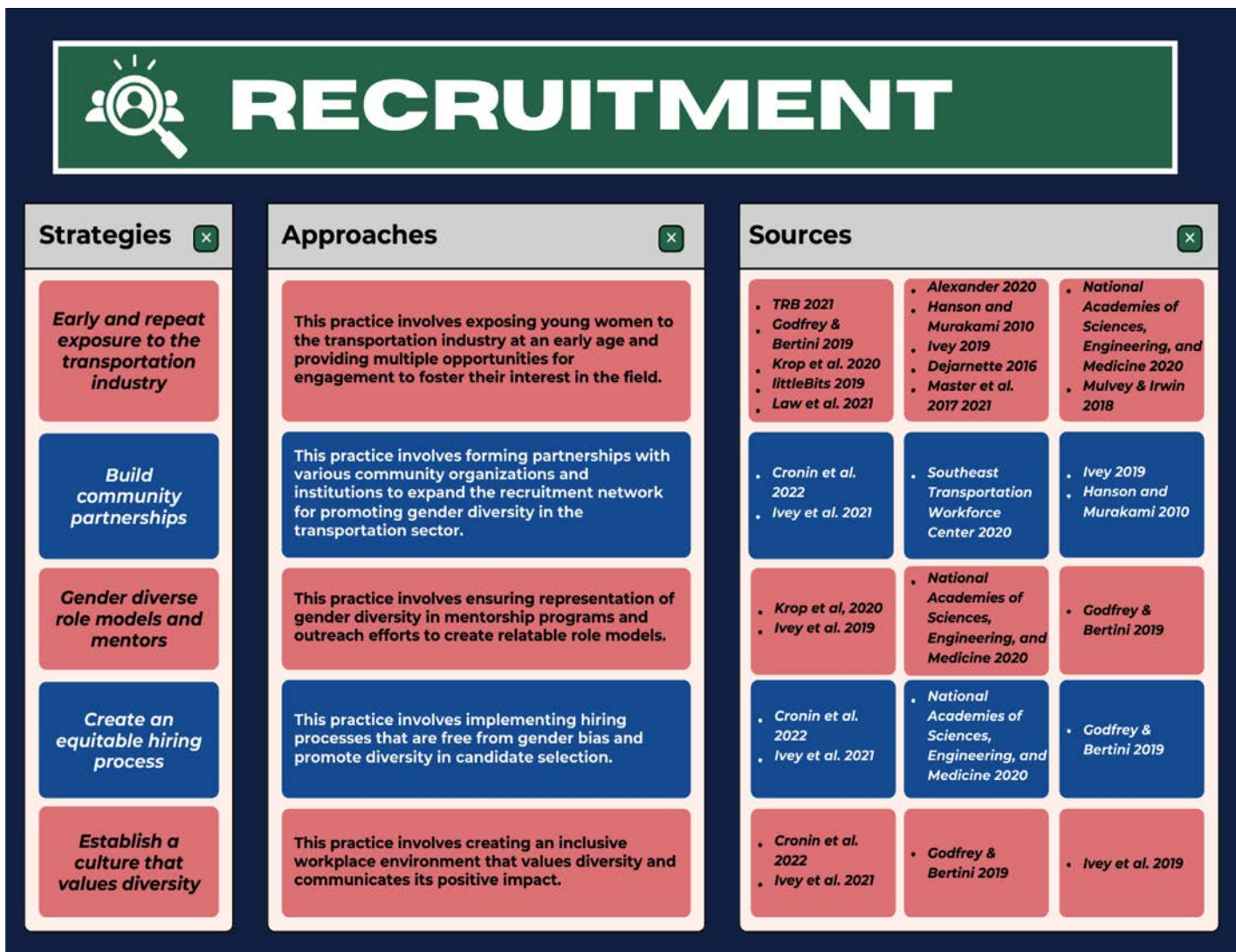


Figure 1. Gender equity practices in the recruiting process.

women, repeat exposure prior to post-secondary education is a determining factor in the selection of a career trajectory (Transportation Research Board 2021; Alexander 2020; National Academies of Sciences, Engineering, and Medicine, 2020; Godfrey and Bertini 2019; Hanson and Murakami 2010; Krop et al. 2020; Ivey 2019).

- **Build community partnerships:** Creating partnerships with community organizations, K-12, and post-secondary entities broadens an agency's network for recruitment. Intentional inclusion of partners that specifically address gender diversity, such as Women's Foundations, professional and trade organizations focused on women, and student organizations or programs with gender-diverse populations is essential for increasing the diversity of talent pools (Cronin et al. 2022; Ivey et al. 2021; Southeast Transportation Workforce Center 2020; Ivey, 2019; Hanson and Murakami 2010).
- **Gender diverse role models and mentors:** Whether considering K-12, college, or incumbent worker populations, it is important that gender diversity is reflected in outreach, recruitment, and mentorship programs. It is crucial that potential candidates are able to "see" themselves in the industry through mentors, classroom speakers, recruiters, or in marketing and communication campaigns (Krop et al. 2020; National Academies of Sciences, Engineering, and Medicine 2020; Godfrey and Bertini 2019; Ivey et al. 2019).
- **Create an equitable hiring process:** Creating an equitable hiring process ensures a diversity of perspectives is considered, reduces bias, increases diversity of candidate pools, enhances decision-making, increases accountability, and strengthens organizational image. Organizations can make a more inclusive and equitable work environment through intentional efforts toward hiring practices that remove gender bias throughout the recruitment process (Cronin et al. 2022; Ivey et al. 2021; National Academies of Sciences, Engineering, and Medicine 2020; Godfrey and Bertini 2019).
- **Establish a culture that values diversity:** It is important for an agency to create an environment within the workplace that is inclusive and supportive of all employees. Establishing that diversity is valued and connecting the dots regarding how this enhances the organizational mission are important to attracting women and other underrepresented groups to an organization. These efforts should be emphasized by leadership and reflected across all parts of the agency (Cronin et al. 2022; Ivey et al. 2021; Godfrey and Bertini 2019; Ivey et al. 2019).

Retention

Implementing policies and procedures that make sure all workers, regardless of gender, feel valued, supported, and included in the organization is an important part of advancing gender equity in terms of retention. According to *TCRP Research Report 228: Resource Guide for Improving Diversity and Inclusion Programs for the Public Transportation Industry*, the retention stage is where organizational efforts are concentrated on keeping top employees and making sure they are content and sufficiently challenged in their individual roles within the team. Reduced staff turnover and increased longevity and satisfaction can be achieved by improving an organization's retention efforts. Equitable compensation plans, career advancement, and appreciation are proposed as key components in retaining a skilled workforce. These practices are important for improving retention regardless of gender (Keen et al. 2021). Meyer et al. (2021) also describe similar retention tactics, including conducting industry-related compensation studies to support salary adjustments; emphasizing specific opportunities for leadership, contribution, and community involvement as part of a job; raising agency awareness of cultural diversity; establishing individual achievement awards and recognizing special accomplishments; and accommodating flexible work styles encouraging a work-life balance. The importance of family-friendly policies and an environment conducive to work-life balance is also emphasized by Feeney and Stritch (2019) and Harper et al. (2018).

Alexander (2020) proposes that social factors, masculine culture, safety and health concerns, and challenges with accommodating responsibilities outside of work collectively impede the retention of women at transportation agencies. Improving accommodations for responsibilities outside of work is repeatedly cited in the literature as especially important to women, who typically require more family-responsive policies than their male colleagues do (Ivey et al. 2021; Jackson et al. 2021). Organizational structures for addressing safety and health concerns are also noted as important steps toward retaining women in the industry (Alexander 2020). For example, microaggressions in the workplace are cumulative and can be very detrimental to retention efforts. Addressing such behaviors and other types of harassment is crucial to creating an environment supportive of women (Transportation Research Board 2021; Ewoldson 2020; Ivey et al. 2019). Creating a sense of belonging and support within an industry plays a significant role in retention (National Academies of Sciences, Engineering, and Medicine 2020; Southeast Transportation Workforce Center 2020; Godfrey and Bertini 2019).

Many state DOTs unintentionally narrow their workforce by mainly retaining their white and male employees (Cronin et al. 2022). Cronin et al. (2022) note that diversity and inclusion training can aid in the retention of more women and people of color by fostering a more inclusive workplace culture. Training can and should be tailored to meet the DOT's unique requirements. Implementation needs time and careful planning, but it has been associated with a good return on investment. Ivey et al. (2021) and Cronin et al. (2022) suggest that diversity and inclusion training should be done at all levels within the DOT and that there should be a metric for measuring progress. Men are incredibly important to the retention of women in the workplace, as they can serve as powerful allies and can further women's sense of belonging (Godfrey and Bertini 2019; National Academies of Sciences, Engineering, and Medicine 2020).

Ivey et al. (2021) assessed objectives, difficulties, and practices among state DOTs in hiring and retaining women and minorities. Findings suggest that state DOTs must promote and emphasize the value of diversity and inclusion inside the sector if they hope to boost the retention of women and other underrepresented groups in the industry. Transportation agencies can examine current practices through a lens that considers the people they are trying to recruit by closely collaborating with diverse groups of current employees to analyze existing policies and procedures and create more innovative approaches specifically designed for a more diverse audience. Implementation of this strategy will make it easier for organizations to recruit and retain a diverse workforce (Ivey et al. 2019). Active engagement of staff is critical in these initiatives. Examples include hosting special groups, forums, or events where state DOT staff can interact and celebrate their diversity, such as special programming during Women's History Month (Ivey et al. 2019).

To achieve the objective of increasing the proportion of women staying in the transportation profession, the literature highlights the importance of transportation organizations offering career development steps, creating an enabling environment for mentorship, and ensuring equal work assignments irrespective of gender (Ewoldson 2020). Access to training for advancement is also highlighted as an important strategy for retention in *NCHRP Synthesis 543: Transportation Workforce Planning and Development Strategies* (Puentes et al. 2019). Employers can use a variety of resources to provide staff with the education and training necessary for success on the job (Krop et al. 2020; Young 2010). Agencies may also encourage and support their staff in participating in workshops or professional development programs for their industry (Krop et al. 2020). Washington et al. (2011) note that practices such as executive coaching, realistic job previews, mentoring, and onboarding help improve the retention of underrepresented groups in the transportation industry. Access to mentors and role models, clear paths to promotion, and organizational goals to attract and retain female employees are strategies echoed throughout the literature as essential for talent retention (Godfrey and Bertini 2019; National Academies of Science, Engineering and Medicine 2020; Ng and Acker 2020).

In summary, general strategies and practices to advance gender equity in retention, informed by the literature review, are presented in Figure 2 and described as follows:

- **Provide equal access to and support for professional development opportunities:** Gender equity in retention in the transportation sector can be improved by providing equal access to professional development opportunities like mentoring, training, and leadership programs. Additionally, having gender-diverse mentors is influential, but the importance of male allies should not be overlooked (Alexander 2020; Anderson et al. 2010; National Academies of Science, Engineering, and Medicine 2020; Keen et al. 2021; Washington et al. 2011; Young 2010; Godfrey and Bertini 2019; Ivey et al. 2021; Transportation Research Board 2021).
- **Foster a culture of inclusivity:** Creating an inclusive culture where all employees feel valued, respected, and included will help with retention, especially for women, where a lack of sense of belonging is often a barrier. This can be achieved by promoting the value of diversity and inclusion, addressing bias and discrimination, and providing forums for employees to express themselves and appreciate their differences (Cronin et al. 2022; Ewoldson 2020; Godfrey and Bertini 2019).

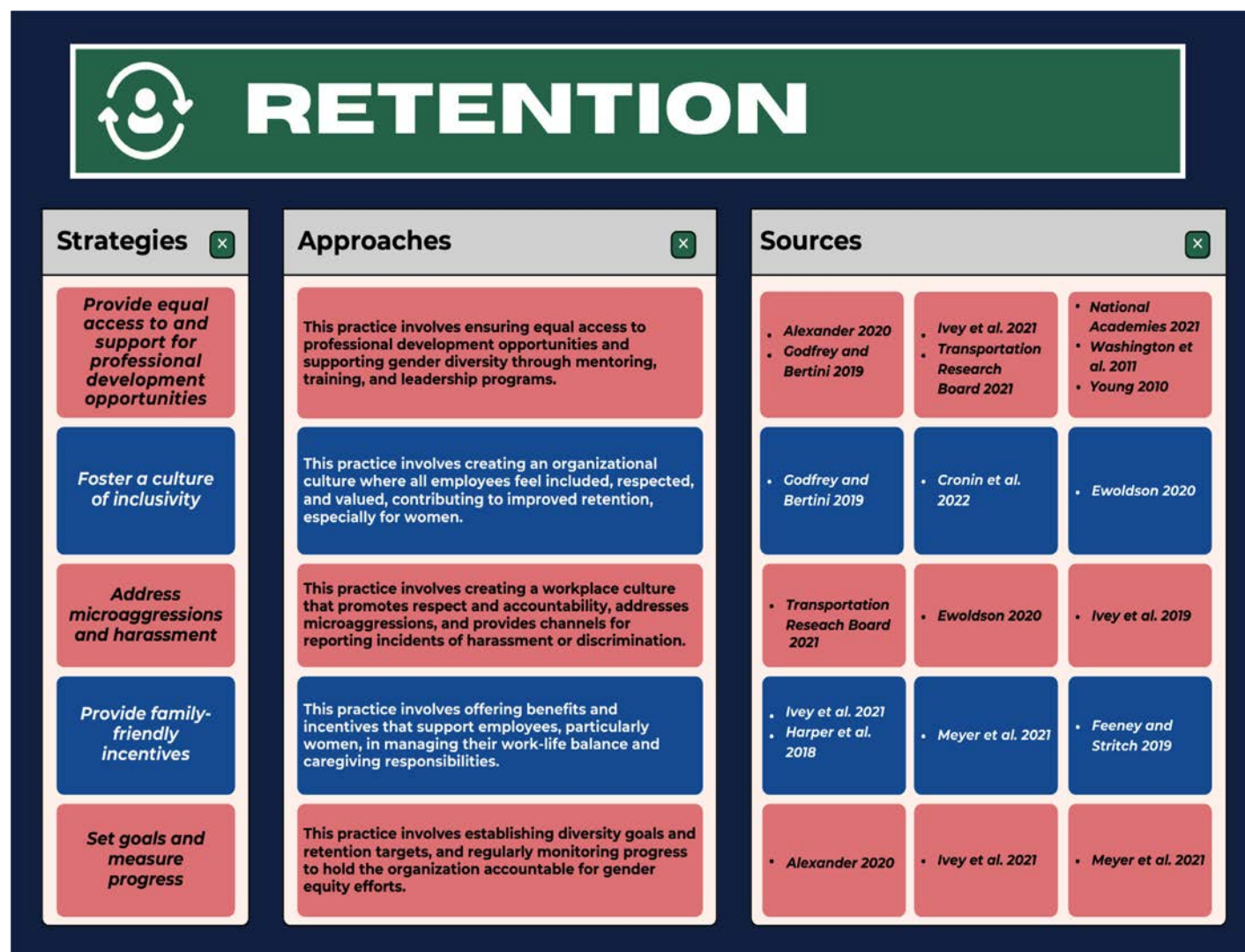


Figure 2. Gender equity practices for retention.

- **Address microaggressions and harassment:** A culture of respect and accountability must be established, one in which staff members feel free to report incidents of harassment or discrimination without fear of retaliation. Leaders must be dedicated to addressing such issues and should be held accountable for establishing and upholding expectations for a respectful workplace. This avoids toxic environments, which increase female employee turnover (Transportation Research Board 2021; Ewoldson 2020; Ivey et al. 2019).
- **Provide family friendly incentives:** Offering family-friendly incentives can support employees, particularly women, with caretaking responsibilities and help them balance work and personal life. Examples include paid parental leave, childcare assistance, and eldercare support (Ivey et al. 2021; Meyer et al. 2021; Feeney and Stritch 2019; Harper et al. 2018).
- **Set goals and measure progress:** Setting diversity goals and targets and routinely monitoring progress can help hold an organization accountable for advancing gender equity and increasing retention. Creating a formal retention plan and holding managers accountable improves the likelihood of improved gender equity outcomes (Alexander 2020; Ivey et al. 2021; Meyer et al. 2021).

Advancement and Leadership

Promoting gender equity in the workplace entails cultivating an environment where all staff members, regardless of gender, have equal access to chances for professional growth, leadership roles, and promotion. During the advancement and leadership stages of an employee's life cycle, continuous professional growth helps develop the skill sets needed to advance along a career path (Keen et al. 2021). A study conducted for the transit industry found that ensuring there is diversity and representation at every job level creates the potential for more gender-diverse leadership long-term, especially in fields dominated by males at the entry level (Transportation Research Board 2019). Expressing the value and importance of diversity and inclusion at all levels of an organization through consistent and continuous messaging is also important for lasting and transformative impact (Ivey et al. 2021).

Rouhanizadeh and Kermanshachi (2021) conducted a descriptive analysis of employees at the U.S. Department of Transportation for a period of seven years spanning 2011 to 2017 to determine factors that favor employees for promotion. The results from this study indicated that women are less likely to obtain leadership positions due to lower levels of education, age, and fewer years in service. The study also examined policymaking that allows more women to be placed in higher-level positions. The human resources professional category was the only one in this study's nine occupational categories where the ratio of female managers was higher than that of male managers. Findings suggest that to attain more women in high-level positions across other occupational roles, workers need to be promoted based on quality, and metrics for assessing quality need to be free from bias (Rouhanizadeh and Kermanshachi 2021). The authors additionally recommend that women be supported in handling family obligations through flexible work schedules and other alternate work arrangements that can help address issues such as child and elder care; that they be encouraged to obtain higher education to develop in their careers; and that women be involved in decision-making processes within the agency (Rouhanizadeh and Kermanshachi 2021).

A report examining practical resources for recruiting minorities to chief executive offices at public transportation agencies emphasized the importance of establishing clear competencies required for success in leadership roles and creating a competency modeling process to support equitable access to and understanding of the advancement process (Washington et al. 2011). Mapping assessments to desired competencies ensures reliable, fair, and accurate screening of qualified candidates. It also enhances opportunities for diverse, qualified applicants to access leadership ranks and builds a performance-oriented organizational culture that is supportive of an inclusive workplace (Prien and Schippmann 2003; Washington et al. 2011).

High-potential employee development is a dynamic process (Cronin et al. 2022); therefore, state DOTs should be open to obtaining and adopting feedback to enhance how they train their leaders. Employees with high potential should be recognized and given more on-the-job opportunities to advance in their professions. Opportunities ought to be customized to meet the unique requirements of the agency and the career goals of each individual. State DOTs can offer possibilities for leadership development such as specialized job assignments, training, and mentorship (Cronin et al. 2022). These elements should be in place to ensure effective succession planning takes place that considers all qualified talent.

Alexander (2020) makes a number of recommendations regarding retention strategies for women in the transit industry, including providing mentorship opportunities along with some guidance on networking, and outlining steps to career development within each work role. The report also stresses the need to assign work equally without regard to gender. The author notes that access to leadership positions for women could be enhanced through intentional learning about application procedures for promotion and by providing information about the eligibility requirements and evaluation process (Alexander 2020). Ewoldson (2020) further emphasizes that mentoring women in the transportation workforce can improve their advancement and the report recommends that agencies consider career development and cross-training to advance women in their careers as strategies for successful succession planning.

Identifying and removing barriers that may disproportionately affect women in the advancement and leadership cycles is especially important given research that finds women are less likely to receive encouragement and mentoring for career advancement (Society for Human Resources Management 2022). Women are also less likely to be made aware of advancement opportunities in the first place and are less likely to indicate that they are included in organizational networks and decision-making. Additionally, women are more concerned than men about discussing their personal lives for fear of personal factors being considered in the advancement process (Society for Human Resources Management 2022). In addition, all these barriers are exacerbated for women of color (Society for Human Resources Management 2022).

A National Academies of Science, Engineering, and Medicine (2020) report recommends the establishment of clear unbiased metrics for promotion and advancement to advance women in the fields of science, engineering, and medicine. The report also recommends recognizing and rewarding individuals who promote diversity, equity, and inclusion, and who support women in leadership positions in these fields. Women who have successfully advanced in their careers are also encouraged to provide support to other women (National Academies of Sciences, Engineering, and Medicine 2020).

According to a *ACRP Research Report 232: Playbook for Cultivating Talent in the Airport Environment* (Jackson et al. 2021), reskilling and training, educational conferences, taking part in certification programs, performance management, and organizational culture are all key strategies to promote women. In addition to these, the key to developing workforce diversity is strong leadership, strategic planning, innovative management, and communication.

A professional development approach that provides opportunities for staff members to create their own personal career objectives is recommended in a study by Meyer et al. (2021). The authors suggest providing staff performance evaluations that consider career development plans. They also advocate for agencies to support lifelong learning, invest in cross-agency training, provide staff mentoring to pass on institutional knowledge to growing leaders, and provide financial support for staff participation in and interaction with professional organizations (Meyer et al. 2021).

ACRP Research Report 202: Developing Innovative Strategies for Aviation Education and Participation highlighted organizations that provide avenues for professional development and advancement for individuals. One such example is WTS [Women's Transportation Seminar],

a global organization with the purpose of expanding possibilities for women to grow and progress at all stages in their transportation careers. WTS provides networking opportunities, professional development opportunities, and leadership training (Ward et al. 2019). A Transportation Research Board (2021) panel concluded that membership in organizations like WTS promotes ways for women to succeed in their professions, thus agency support for membership and equitable participation in leadership development activities for women is essential. The panel further recommended that women support one another, connect to opportunities, volunteer, and take leadership development courses (Transportation Research Board 2021). Supporting participation in gender-based professional organizations that provide mentoring and leadership development can meaningfully improve retention outcomes as evidenced by a recent survey in which 48% of female respondents indicated a lack of advancement opportunity, 22% indicated a lack of managerial support, and 18% indicated a lack of organizational commitment to diversity, equity, and inclusion (DEI) as reasons for leaving an employer (McKinsey & Company 2022). Agencies that support staff participation in professional organizations not only realize benefits for their current workforce but also contribute to gains in persistence in engineering and a sense of belonging for college women and other underrepresented minorities (Campbell-Montavalvo et al. 2022).

In summary, strategies and practices to advance gender equity regarding advancement are presented in Figure 3 and include:

- **Provision of mentorship and developmental programs:** The success of women in the transportation sector can be supported by offering mentorship and leadership development programs. These programs can assist women in enhancing their careers and creating networks within the sector. Women should also be encouraged to and supported in pursuing higher levels of education (Alexander 2020; Rouhanizadeh and Kermanshachi 2021; Cronin et al. 2022; Transportation Research Board 2021; Godfrey and Bertini 2019; National Academies of Sciences, Engineering, and Medicine 2019).
- **Equal access to leadership positions:** Ensure that women have equal access to challenging positions, high-profile projects, and chances for career growth. It is also important to examine the process of project assignment and cross-training opportunities to remove any potential barriers that may limit women's ability to access these or other opportunities for advancement (Keen et al. 2021; Society for Human Resources Management 2022; National Academies of Sciences, Engineering, and Medicine 2019).
- **Addressing promotion discrimination based on gender:** Organizations should eliminate gender bias in the promotion process by creating transparent and measurable promotion criteria, defining objective performance standards, and offering equal access to training irrespective of one's gender. This will strengthen the notion that promotions are based on merit rather than criteria like gender (Rouhanizadeh and Kermanshachi 2021; National Academies of Sciences, Engineering, and Medicine 2020; Alexander 2020).
- **Training in bias awareness for decision-makers:** Organization of training sessions to increase leaders' understanding of unconscious biases and how they affect the way decisions are made is critical. Decision-makers and leaders should be prepared to identify and address biases that could obstruct the advancement of women into leadership positions (Cronin et al. 2022, Ewoldson 2020).
- **Provide flexible work schedules:** Offering flexible work hours supports women who may be balancing caregiving duties or other obligations outside of the workplace. This may make it possible for women to fulfill their professional obligations while also taking care of their other obligations, supporting their ability to develop in their careers more quickly (Rouhanizadeh and Kermanshachi 2021).
- **Implement succession planning:** Create effective succession planning procedures that include the organization's high-potential female employees and lay out a roadmap for their ascent to leadership positions. Ensure women are provided with equal development opportunities to get them ready for leadership roles in the future (Cronin et al. 2022; Puentes et al. 2019; National Academies of Sciences, Engineering, and Medicine 2020; Ewoldson 2020).

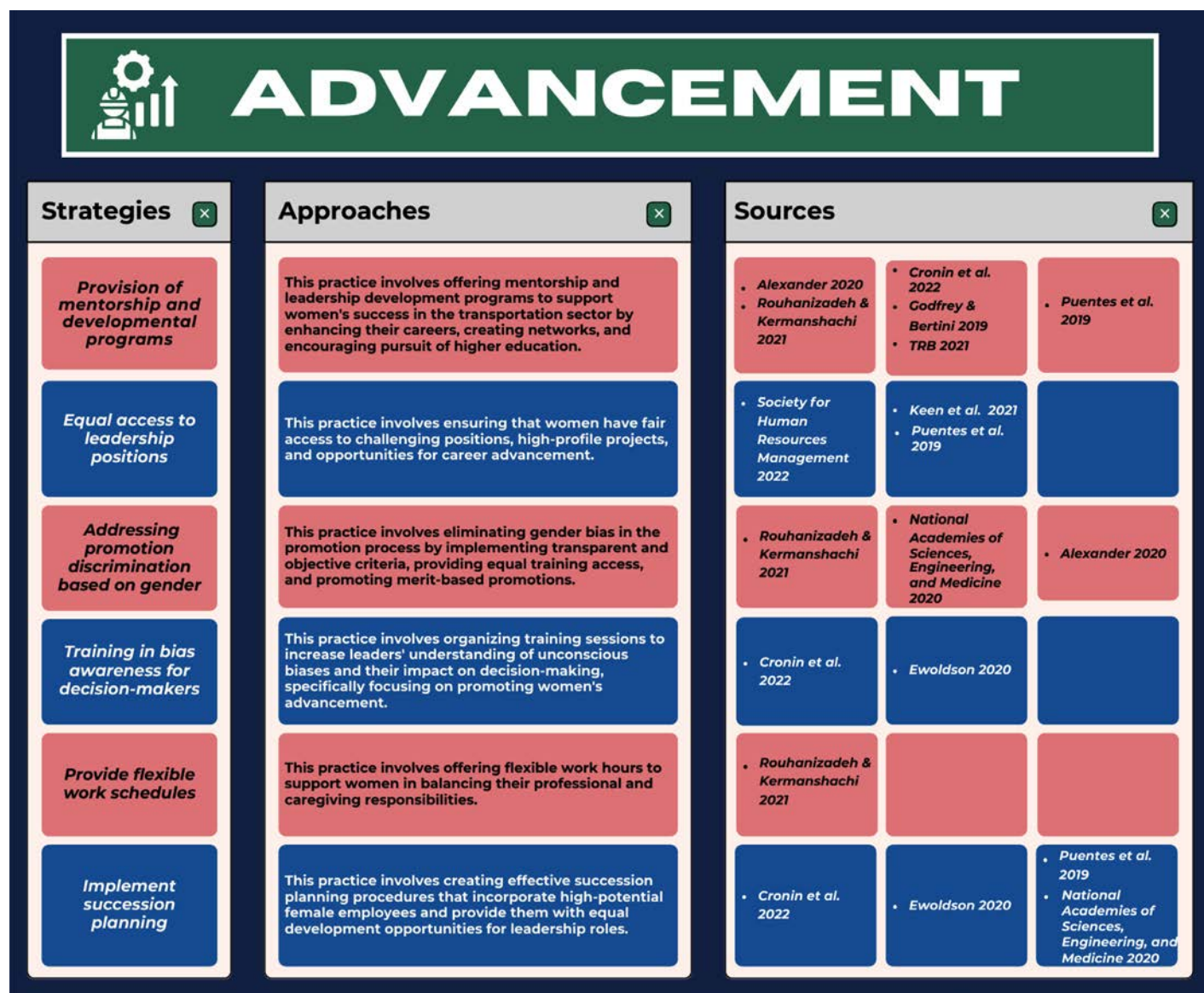


Figure 3. Gender equity practices for advancement.

Comprehensive Strategies

While there are approaches tailored specifically to the various employee life-cycle stages that support a gender-diverse workforce, there are also overarching strategies that are important to consider for initiatives developed at any stage. It is important to maintain threads between stages to ensure that a comprehensive program is developed that is supportive of all employees. While specific approaches have been demonstrated to positively affect outcomes for underrepresented populations, such as women, the workforce culture developed through implementing these approaches is supportive of and beneficial for all employees. Overarching approaches, illustrated in Figure 4, include:

- **Develop a plan.** It is important for state DOTs to be intentional about gender equity across the employment life cycle. Establishing a clear plan and agency goals can help ensure a comprehensive strategy is developed.
- **Create a sense of belonging.** From demonstrating through outreach and recruitment efforts that diverse genders are represented and valued within the organization to ensuring people



Figure 4. Comprehensive strategies for advancing gender equity.

of all genders can envision a role for themselves at all levels of the organization, cultivating a sense of belonging can go a long way toward attracting, retaining, and advancing gender diversity.

- **Foster a respectful workplace.** A respectful workplace environment is important for all individuals within an organization but is especially important for enhancing gender diversity, where microaggressions and other harassment can lead gender-diverse employees to feel unwelcome and unsafe. This is a critical element not only for attracting gender diversity but also for retaining and advancing diverse talent.
- **Promote the value of diversity in achieving the agency's mission.** When staff across an organization understand the value that diversity can bring, they are less likely to feel threatened and more likely to embrace diversity goals. For gender diversity, this is critical for creating a welcoming workplace culture and fostering a sense of belonging. Clearly articulating this value also aids in recruitment, positioning the agency as an employer of choice.
- **Highlight positive community impact.** Whether developing outreach and recruitment plans or working to retain employees, an agency effort to showcase the ways in which individuals can make a difference in their community through the transportation industry and the DOT's mission is effective for promoting gender diversity.
- **Collect data, establish metrics, and ensure accountability.** It is not enough to deploy strategies or develop a plan to enhance gender equity. DOTs must be clear about the importance of collecting data, establishing metrics for success, and ensuring accountability of managers and leaders for reaching gender equity goals. In addition, as the organizational culture will affect the effectiveness of approaches that are implemented, agencies must have a way to assess what works and what does not and to inform strategy evolution across the employment life cycle.

Data and Assessment

In all areas of transportation agency operations, an increasing emphasis on data-driven decision-making highlights the need for data collection and analysis processes to improve organizational performance (Bills 2019). To achieve gender equity in the workforce, state agencies need to

collect data and track trends in the recruitment, retention, and advancement of women; and robust data analysis is needed to understand when new strategies are needed and to determine which actions are effective at achieving desired outcomes (National Academies of Sciences, Engineering, and Medicine 2020).

Having the right information in the hands of decision-makers can lead to actionable policies and practices that result in meaningful change (Transportation Research Board 2021). A lack of information can likewise stymie efforts. The National Research Council (2012), for example, found that absence of data on employer-specific pay broken down by demographic information complicates efforts to eliminate wage discrimination. There is a need to ensure that workforce data collected is disaggregated by gender and captures metrics for processes or working conditions that might affect women and men differently (Ng and Acker 2020). Quantitative and qualitative measures are recommended to capture both personal experiences and trends (Transportation Research Board 2021). However, inadequate staffing resources or know-how can constrain data collection and analysis efforts at transportation agencies (Keen et al. 2021).

Much evidence in the literature links data with accountability. A lack of consistent evaluation and progress benchmarking was found to limit effective diversity and inclusion activities at public transportation agencies (Keen et al. 2021). It has been noted that if organizations do not set specific targets and establish systems for monitoring and evaluating progress, it is difficult to hold anyone accountable for achieving gender equity progress (Godfrey and Bertini 2019, Hubert H. Humphrey Institute of Public Affairs 2007). Kalev et al. (2006) observed that programs that establish responsibility for countering equity issues—such as affirmative action plans or establishing diversity staff positions and committees—were the most effective in increasing managerial diversity among medium and large private sector workplaces. A Center for Economic Studies (2022) report found that federal affirmative action policies for firms holding federal government contracts were currently ineffective at increasing the number of new hires or the share of incumbent workers from protected groups. The authors concluded that the main reason for the observed ineffectiveness was the lack of compliance by federal contractors; a situation compounded by the lack of federal enforcement (Amano-Patino et al. 2022).

Literature assessing the impacts of various practices employed by state DOTs to advance gender equity in the workforce is more limited. A resource guide for improving diversity and inclusion programs at public transportation agencies noted a lack of assessment data on the effectiveness of diversity and inclusion training (Keen et al. 2021). Multiple studies employed in the private sector found slim evidence for the efficacy of diversity training in real-world workplaces, noting only small effects on prejudice reduction and less on long-term behavior change (Chang et al. 2019, Paluck et al. 2021). Other research discovered continuing implicit bias effects even after training (National Academies of Sciences, Engineering, and Medicine 2020).

Data Sources on Workforce Characteristics and Trends at State DOTs

Federal regulations mandate that state agencies receiving federal financial assistance, such as through the federal-aid highway program, comply with equal employment opportunity (EEO) requirements. Title VII of the Civil Rights Act of 1964 also requires “virtually all state and local governments to comply with certain employment reporting requirements and to develop affirmative action plans that include goals and timetables to achieve a representative workforce” (Keen et al. 2021, p. 8). State departments of transportation therefore conduct a variety of programs designed to ensure fair and equal treatment regardless of sex as well as other protected classes, such as race, color, disability, gender identity or expression, and sexual orientation. State DOTs regularly submit EEO employment data reports. The EEO-4 reports compile data, disaggregated by gender and race/ethnicity, on incumbent workers within eight job categories defined by the

U.S. Equal Employment Opportunity Commission (EEOC): officials and administrators, professionals, technicians, protective service workers, paraprofessionals, administrative support, skilled craft workers, and service-maintenance. State DOTs may also prepare regular affirmative action plans, which involve the compilation and analysis of data on agency employees by job category, gender, and race, as well as labor market availability within those same categories. EEO data reports and affirmative action plans provide useful data sources on state DOT workforce composition disaggregated by gender and race, as well as on changes in gender composition by job category over time.

Affirmative action plans additionally set concrete goals to make corrections where certain gender and/or minority groups are underutilized within specific job categories at the agency when compared with the locally available qualified labor force. Corrections may entail review and adjustment to recruitment, hiring or termination practices. State DOT affirmative action plans therefore provide a potentially useful data source on strategies or interventions DOTs have applied to counteract gender imbalances and on resulting impacts.

However, despite the potential usefulness of EEO reporting and affirmative action plan data for establishing a baseline from which to track changes over time, *TCRP Report 120/NCHRP Report 585: Racial and Gender Diversity in State DOTs and Transit Agencies: A Benchmark Scoping* (Hubert H. Humphrey Institute of Public Affairs 2007) found that the data collected by state DOTs and transit agencies was neither complete nor comprehensive enough to establish a credible benchmark. The authors observed too much variance in what and how information was reported by individual states. They also noted that the data was made available from federal agencies in a format that made large-scale data analysis difficult. Affirmative action programs have faced legal challenges and organizations must demonstrate statistical imbalance in their incumbent workforce when compared to the locally available labor force possessing requisite job skills (Keen et al. 2021). However, the TCRP/NCHRP report authors found that only 58% of states conducted the necessary analysis of labor market data needed to establish legally defensible race or gender-conscious hiring goals (Hubert H. Humphrey Institute of Public Affairs 2007).

EEO programs also collect information on internal discrimination and harassment complaints, which could be useful in identifying workplace climate issues for women and other underrepresented staff at state DOTs. Interpretation of complaints data is complicated by the fact that fear of retaliation at some organizations may silence potential claimants (Keen et al. 2021). A study on federal government agency discrimination complaints and retaliation claims found that a high number of discrimination complaints, rather than implying poor working conditions, could instead indicate that employees feel safe from retaliation and confident that their concerns will be addressed fairly (Alteri et al. 2023).

AASHTO collects and compiles an annual survey on job classifications and salary information for job positions within state DOTs. The annual AASHTO salary surveys are useful for comparing salary ranges offered by state DOTs across occupations and levels (e.g., entry, intermediate, or senior-level positions). However, the salary surveys do not break down incumbency numbers or pay rates by gender or other demographic categories.

For the first time in 2021 AASHTO initiated a Human Resources Metrics survey, which collected expanded human resource data from state DOTs beyond the annual salary survey, including workforce diversity data broken down by EEO position categories. Other metrics collected in this effort comprised position counts, percentage of teleworkers, average age of new hires and current employees, average length of service, turnover rates and type of turnover, and retirement eligibility (AASHTO 2022). The new survey effort provides a useful starting point for identifying relevant metrics to guide development of human resources policies and practices at state DOTs.

Diversity, Inclusion, and Intersectionality

While gender equity is a challenge in the workforce, the implications for women who identify with another underrepresented group—including racial, ethnic, or disability status or Lesbian, Gay, Bisexual, Transgender, Queer, questioning, and/or other (LGBTQ+)—are even more significant. This intersectionality often creates a multiplier effect in which women's experiences are even more affected by additional perceived differences from their co-workers. A 2022 study on women in leadership found that while women are still woefully underrepresented in leadership positions, Black women are even more likely to be passed up for leadership roles (Society for Human Resources Management 2022). Another study found that while Black women report aspirations for higher-level roles more frequently than women of other races and ethnicities, they are more likely to be discouraged about their potential for leadership roles and have their competency questioned (McKinsey & Company 2022). Compared to their peers, they are also more likely to be deemed less competent and to experience belittling or harassing behavior. In addition, Black, Latina, and Asian women are less likely to receive praise for accomplishments, face greater penalties for mistakes, and have less support from direct supervisors for career advancement (McKinsey & Company 2022).

Similar trends are in evidence for women with disabilities and LGBTQ+ women. Women with these intersectionalities also are treated as less competent than other women and face higher rates of harassment and belittling treatment (McKinsey & Company 2022). A study found that women with disabilities receive more comments about their appearance—particularly related to professional presence—than do other women (McKinsey & Company 2022). Cech and Rothwell's (2020) study found that LGBT federal employees fare worse on measures of perceived treatment, workplace fairness, and job satisfaction, and that these factors were exaggerated for women and people of color. The result was higher turnover intention among these employees (Cech and Rothwell 2020).

For an inclusive workplace environment to be established, it is essential that diversity—broadly defined—be front and center and that the implications of intersectionality are considered (Diechler 2021). Without accounting for intersectionality, gender equity programs developed in silos will be generally less effective. Additionally, examining intersectionality is essential for creating inclusive practices because it often brings to light systemic issues that must be addressed (Wilson 2023).

To create a workplace culture that is supportive of all employees means that leaders must be champions, unconscious biases must be identified and addressed, barriers to belonging and advancement removed, and a culture of respect integrated across all aspects of the organization. Central to successful organizational transformation is data (Bashford 2019). Data must be collected, analyzed, tracked, and used to inform decisions that keep the organization moving forward for diversity and inclusion as a whole and for gender equity specifically.



CHAPTER 3

Survey Results

The study team developed a survey for state DOT respondents based on discussions with and insight from the NCHRP project panel, literature review, and experience of the team with similar efforts. Once the survey was drafted, the NCHRP project panel reviewed and pretested the instrument. Revisions based on panel feedback were incorporated into the final survey instrument.

The survey was designed to limit the time required for a state DOT to respond while still obtaining as much relevant information as possible. Survey items focused on information related to management of diversity and inclusion initiatives as well as practices agencies have in place across the entire career life cycle and data collection/metrics used to assess impact. The goal of the survey was to document strategies, policies, and practices in use by state DOTs for improving gender equity. The outreach email and survey instrument are provided in Appendix A. The responses to each question in the aggregate and by individual state DOT are provided in Appendix B.

The survey was designed to be efficient for DOT representatives to complete while capturing important information for understanding the current state of practice related to gender equity initiatives. For agencies that do not currently have gender equity practices or policies in place, a simple four-item survey was constructed. For agencies that do have gender equity practices or policies, a 25-item survey was developed. Survey questions addressed the following topics:

- Existence of policies or practices designed to advance gender equity.
- Assignment of responsibility for diversity, equity, and inclusion within the organization.
- Strategies or practices in place to promote gender diversity in the recruitment process.
- Strategies or practices in place to retain a more gender diverse workforce.
- Strategies or practices in place to promote gender diversity in leadership.
- Data collection and assessment practices related to gender diversity initiatives.
- Evidence of impact related to gender diversity efforts.
- How gender diversity importance and progress are communicated.
- Accountability processes for gender diversity outcomes.
- Employee engagement related to gender diversity.
- Support of diverse gender identities.
- Willingness to participate in a follow-up interview.

The survey universe, or all potential respondents, included all state DOTs, Puerto Rico, and Washington, DC. All agencies were invited to participate.

Survey Results – Participating States and Governance Structure

A total of 43 states and the District of Columbia and Puerto Rico Highway and Transportation Authority participated in this data collection effort, representing an 87% response rate. Participating states are highlighted in Figure 5. For each question, the non-response rate was

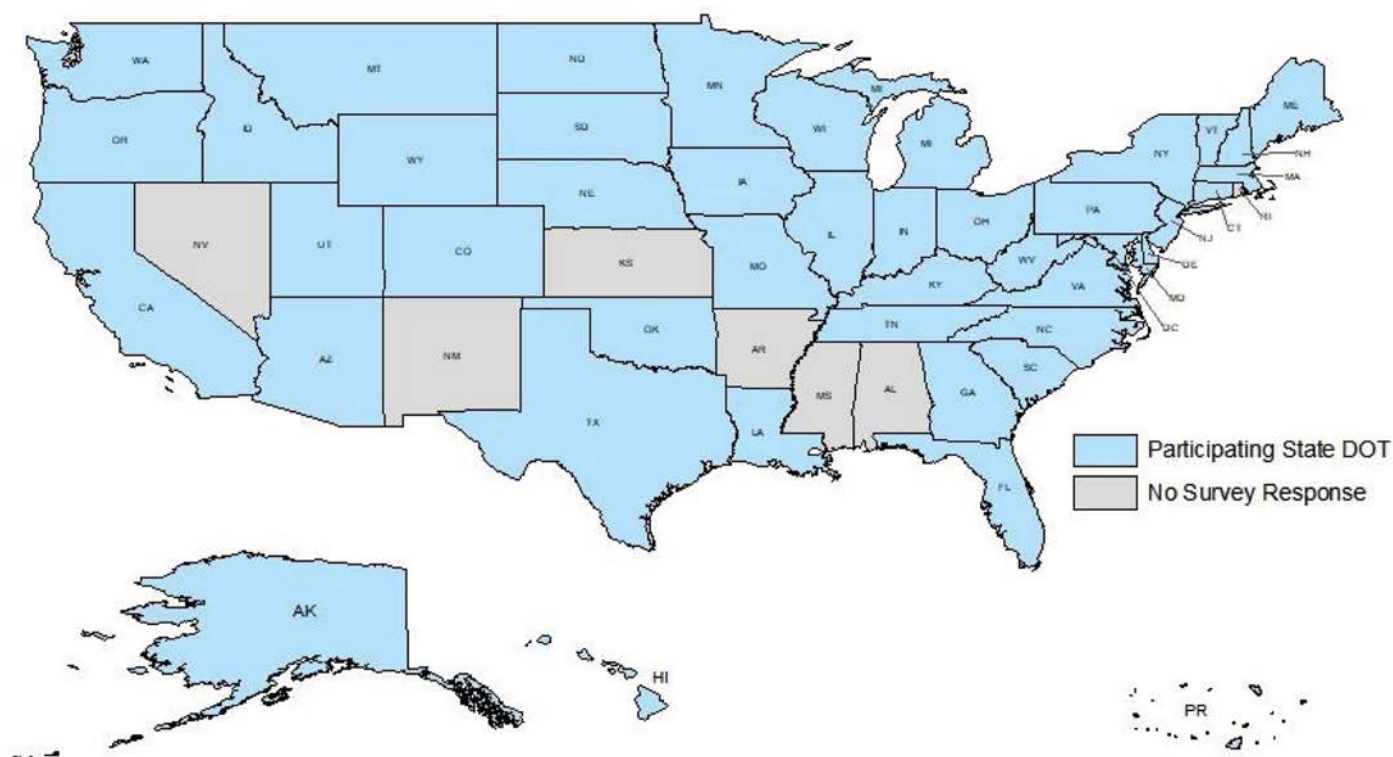


Figure 5. Survey participants.

less than 7% (1–3 agencies). The majority of participants indicated having relevant policies or practices, but the responsibility for management of these programs varied. Regarding the existence of practices or policies designed to advance gender equity within the workforce, 34 agencies confirmed the existence of such practices or policies. Of 11 agencies that do not have practices or policies to advance gender equity, 6 agencies reported that they do not have any plans to explore programs or initiatives to advance gender equity in the workforce. Agencies surveyed that do not currently have programs or initiatives to advance gender equity are Idaho, Arizona, Nebraska, North Dakota, South Dakota, Indiana, Montana, Florida, Wyoming, Iowa, and Puerto Rico.

DOT representatives were asked to state the title and/or division in charge of managing diversity and inclusion within their organization. They could select as many options as were applicable to their agency. Figure 6 shows the results for the 34 agencies reporting practices to advance gender equity. Civil Rights and Human Resources divisions were most frequently identified as having responsibility, with 21 state DOTs. For states indicating “Other,” responses include (responses are reported as written by participants in the survey system):

- Office of Equal Opportunity and Diversity
- Civil Rights, Human Resources, and Office of Equity and Diversity
- The Human Resources Division’s D&I [Diversity and Inclusion] Programs Section Director partners with department leadership
- All the hiring managers and employees

Figure 7 shows the title and/or division in charge of managing diversity and inclusion for the 11 agencies reporting no specific practices or policies to advance gender equity. In most of these cases, the groups responsible for managing diversity and inclusion are Human Resources

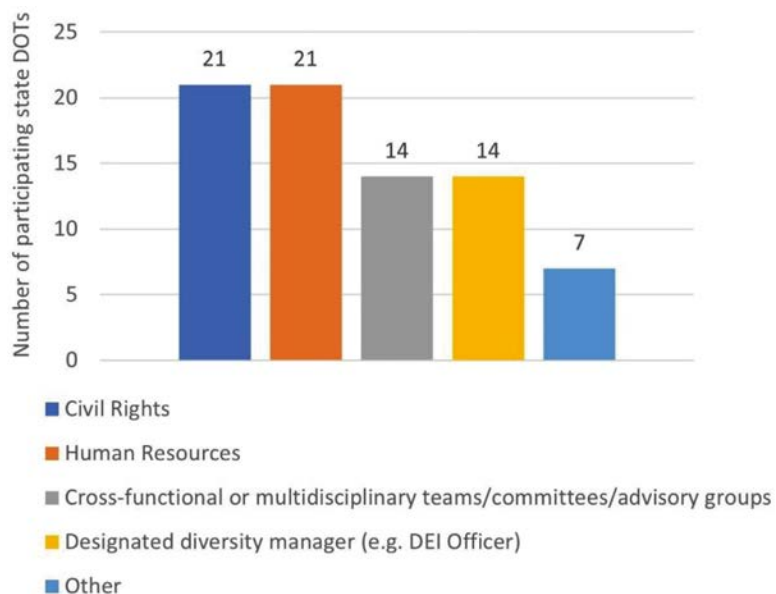


Figure 6. Title or division in charge of managing diversity and inclusion (agencies with practices to advance gender equity).

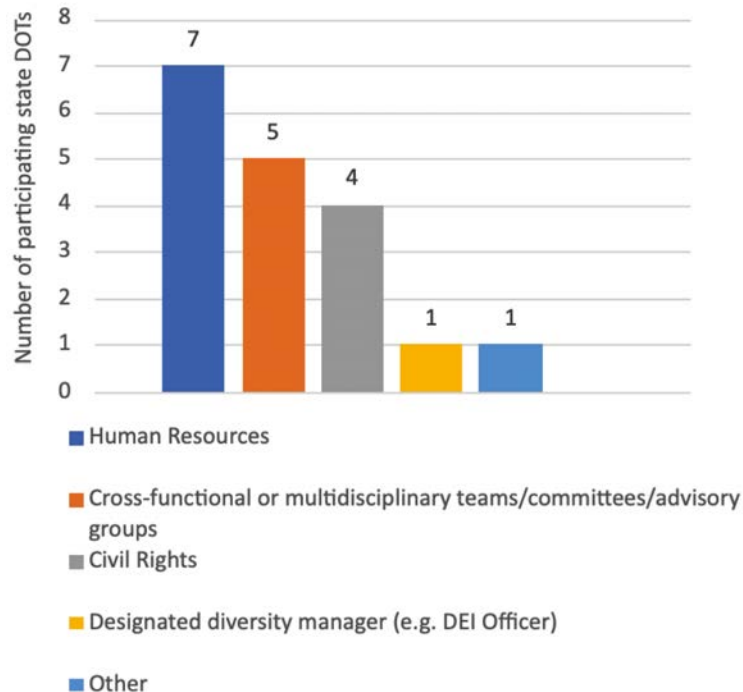


Figure 7. Title or division in charge of managing diversity and inclusion (agencies without reported practices to advance gender equity).

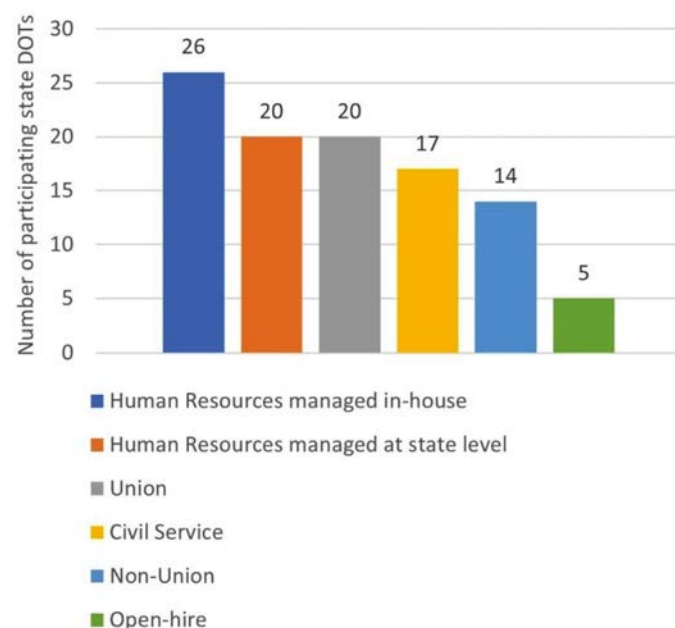


Figure 8. Governance and personnel systems (agencies with practices to advance gender equity).

(7 agencies), cross-functional or multidisciplinary teams (5 agencies), and Civil Rights (4 agencies). Other diversity and inclusion managers identified by these agencies include a designated diversity manager (1 agency) and the Equal Employment Office (1 agency).

Agencies with practices to advance gender equity were asked to describe the governance and personnel systems in their organization and were allowed to select as many answer options as applicable. Many agencies have multiple governance and personnel systems in place. Figure 8 presents the results. Human Resources managed in-house were reported most frequently (26 agencies) followed by Human Resources managed at the state level (20 agencies) and unionized personnel systems (20 agencies). Open hire (5 agencies) represented the smallest share. The survey responses were examined according to the unit responsible for managing DEI and the type of governance and personnel systems in place, but no trends or significant differences were observed in any of the survey responses based on these categorizations.

Survey Results – Practices to Promote Gender Diversity

This section of the survey focused on practices across the career life cycle—including recruitment, retention, and advancement. The state DOTs with practices to advance gender equity were provided with a list of potential practices or strategies to choose from for each area based upon findings from the literature review. An “Other” option was also offered to allow respondents to write in other specific programs or strategies that were not captured in the list of answer choices. Respondents could select as many options as were applicable to their agency for each of these questions. Figure 9 shows strategies and practices used to promote gender diversity in the recruitment process. Partnerships with educational institutions (e.g., secondary schools, technical or community colleges, universities) (30 agencies) is the most frequently used practice. Ensuring agency recruiters attending outreach events are representative of diverse genders (27 agencies) is the second most frequent practice. Setting specific targets for applicant pool diversity (7 agencies) is the least used practice reported by participating agencies.

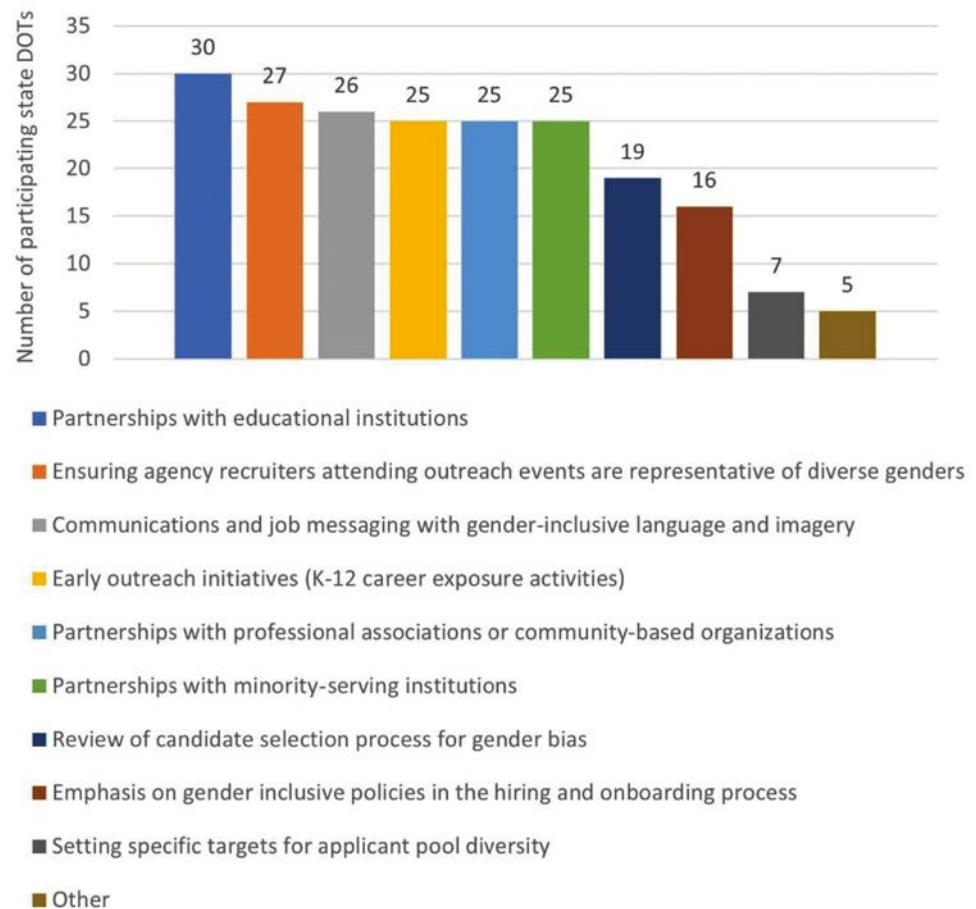


Figure 9. Strategies used to promote gender diversity in the recruitment process.

Other strategies and practices listed by responding DOTs include:

- Education of hiring managers on current state and target for representation
- Diversity and inclusion advisory council
- Utilized data to understand workforce demographics to develop and implement strategies (recruitment, succession planning, etc.)
- Inclusive hiring panels
- Offering telework options.

When considering retention, the most used practices for promoting gender diversity are EEO trainings (compliance issues, complaint process, etc.) (32 agencies) and remote work options (32 agencies), as shown in Figure 10. Onsite childcare (3 agencies) and financial support for offsite childcare (6 agencies) are the least used practices. Other strategies/practices are as follows:

- Strategic Workforce Committees that include a DEI lens
- Onsite childcare is in the works in partnership with other state agencies co-located.

Figure 11 shows strategies and practices used to promote gender diversity in leadership. The most used practices are executive coaching and leadership programs (24 agencies) and cross-training or rotation programs (21 agencies). Formal succession plans (2 agencies) are the least used practices. Other strategies and practices reported by respondents are as follows:

- Pre-supervisor training, interview and hiring training
- Informal succession planning

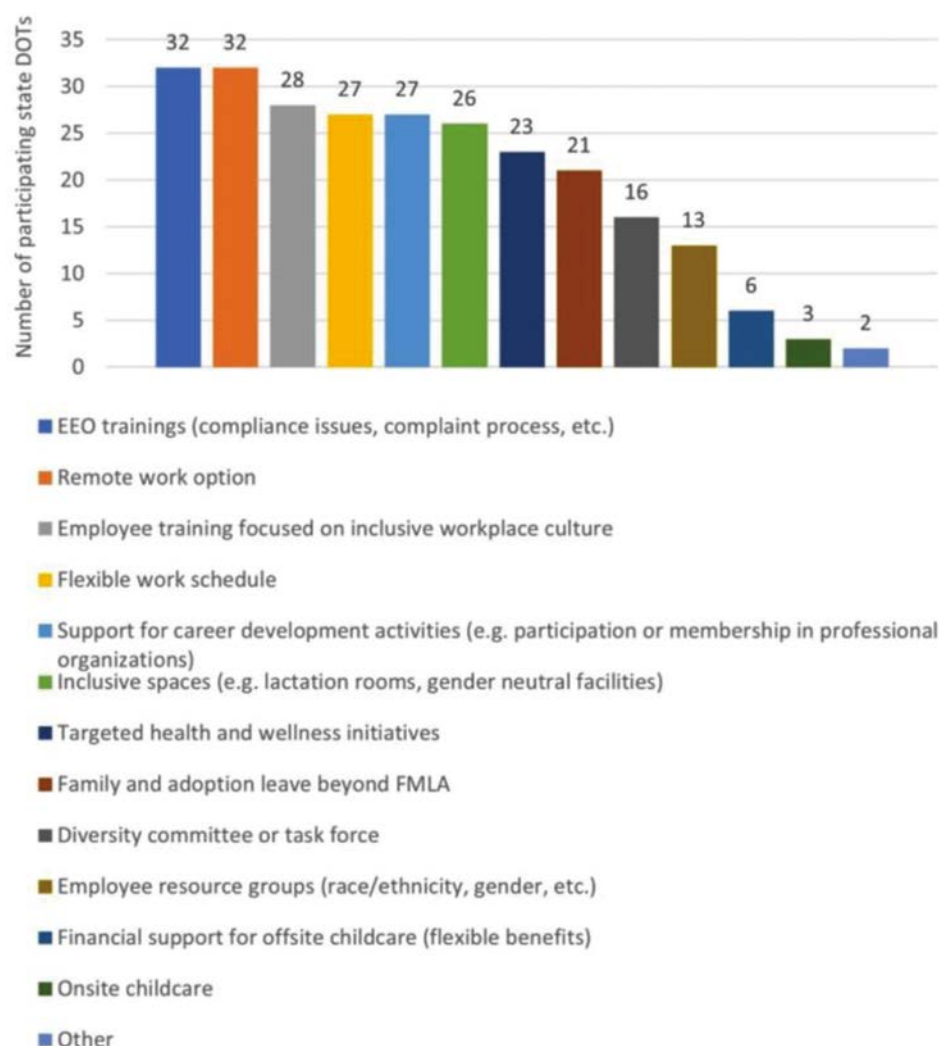


Figure 10. Strategies and practices used to promote gender diversity in the retention process.

Survey Results – Assessment Practices

To better understand existing evidence of impact related to practices designed to promote gender diversity, respondents were asked to specify the practices that are being formally assessed. Respondents could select as many practices as were applicable to their agency. Table 1 shows the results. The most frequently reported practices being directly assessed are recruitment practices (26 agencies), followed by retention practices (16 agencies) and advancement/succession practices (13 agencies). Four of the responding agencies indicated that no assessment of practices takes place.

Respondents were also asked to specify other practices, if any, which are being formally assessed within their agencies. Those responses include:

- Parity Study for Annual Affirmative Action Plan Updates
- Engagement practices: Employee Resource Groups, D&I committees, Peer Equity and Inclusion Coaches (PEICs)

Respondents were also asked to indicate the type of evidence of impact that exists for gender equity practices for their DOT. Table 2 presents the results. The majority of responding agencies

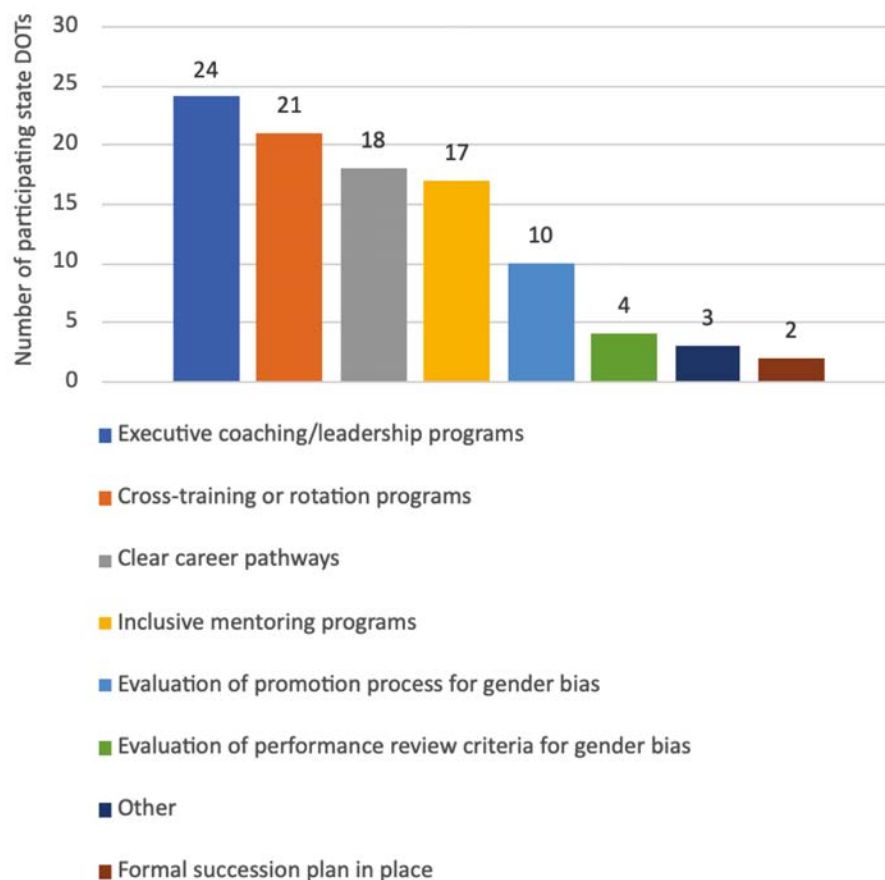


Figure 11. Strategies/practices used to promote gender diversity in leadership.

Table 1. Formally assessed practices related to gender equity.

Practice	Number of Agencies
Recruitment practices	26
Retention practices	16
Advancement/succession practices	13
None	4
Other	4

Table 2. Existence of evidence of impact for different practices.

Practice	Yes, Anecdotal	Yes, Supported by Data	No
Recruitment practices	5	17	6
Retention practices	4	14	8
Succession planning/advancement practices	7	7	10
Other	0	1	3

(22 agencies) indicate they have evidence of impact on recruitment practices. This evidence is reported to primarily be supported by data (17 agencies), with 5 agencies indicating anecdotal evidence. For retention practices, 18 responding DOTs reported evidence of impact, with 14 indicating this evidence is based on data and 4 on anecdotal evidence. Succession planning/ advancement practices were reported to have evidence of impact less frequently (14 agencies), with 7 respondents indicating evidence was supported by data and 7 indicating anecdotal information.

Participants were asked to list specific practices for which the state DOT has evidence of gender equity impact. Responses include (reported as written by respondents):

Recruitment and Hiring Practices:

- University recruitment.
- EEO and HR interviews with divisions regarding current workforce make-up, versus diversity of population, and where there is disparity.
- Introduction of hiring justifications.
- Identification of mandatory interviews for women and BIPOC [Black, Indigenous, People of Color] in underrepresented positions.
- Monitoring the hiring for impact on targeted gender/race goals.
- Officially incorporating DEI and Workforce Development in recruitment process.
- Job postings that accurately reflect the job responsibilities, education, experience, and physical ability requirements.
- Changing the minimum qualifications for entry level maintainers with experience with automatic transmissions, not manual.
- Screening of applicants by trained recruitment teams.
- Measuring the placement of minorities and females in various positions and reviewing the recruitment pool for representation.

Training and Mentorship:

- Leadership training.
- Awareness training (hiring and compliance).
- Career guidance.
- Mentoring programs.
- Officially incorporating DEI and Workforce Development in training practices.
- Commercial Driver's License training as a tool for job promotion.

Retention:

- Monitoring the promotional practices for impact on targeted gender/race goals.
- Flexible work schedules, teleworking, and family leave beyond FMLA [Family Medical Leave Act].
- Officially incorporating DEI and Workforce Development in retention practices.
- Engagement opportunities like committee involvement, mobility opportunities, Work out of Class opportunities.
- Celebrating the events.

Figure 12 shows metrics that state DOTs are using to gauge progress toward gender equity goals. Respondents could select as many metrics as were applicable to their agency. The most used metrics are the overall gender balance in organization (26 agencies), gender balance by job category in organization (26 agencies), and gender balance by race/ethnicity (26 agencies). Compensation levels/wage gap analysis (10 agencies) is the least used metric.

32 Advancing Gender Equity in the DOT Workforce

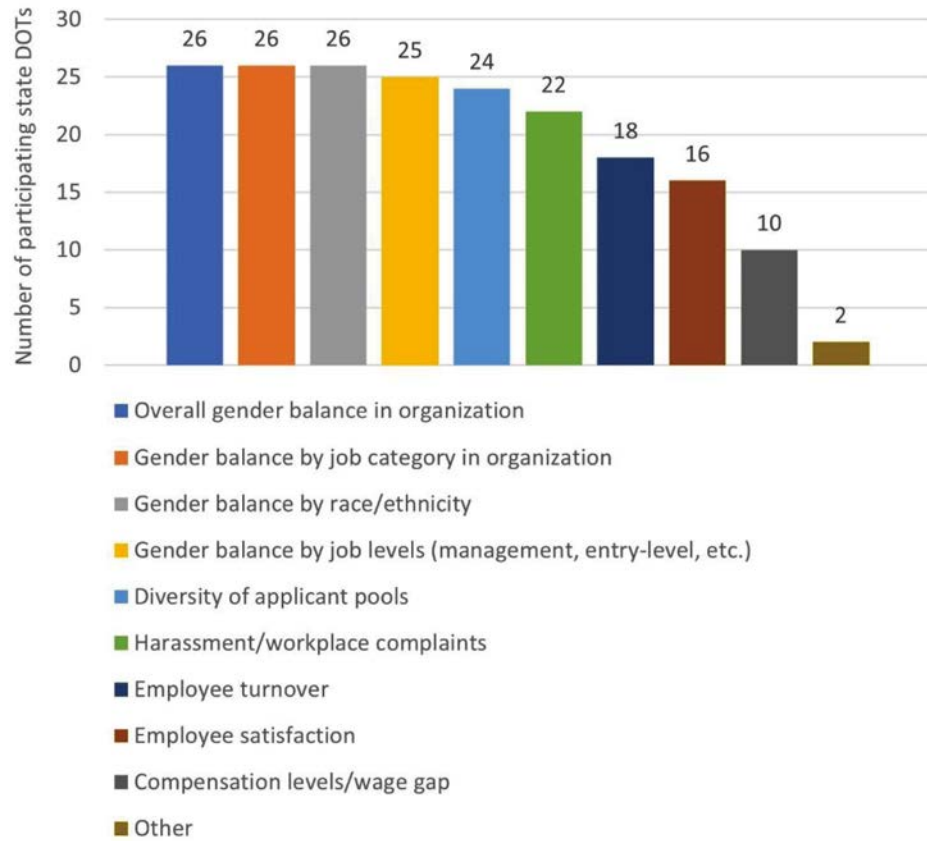


Figure 12. Metrics used to gauge progress toward gender equity goals.

Survey Results – Data Collection and Analysis Methodologies

The majority (27) of agencies that reported practices to advance gender equity analyze gender equity data in conjunction with other EEOC protected categories (e.g., race, sexual orientation, gender identity, age, disability), while 2 agencies do not, and 5 agencies are unsure.

Many of the agencies surveyed have numerous types of data that are used to assess equity, either disaggregated by gender, race/ethnicity, or both. Table 3 shows the types of data used by the agencies and how the data are disaggregated. Respondents could select as many types of data as were applicable to their agency. The most common data utilized are agency utilization rates

Table 3. Data to assess equity by race/ethnicity and/or gender.

Data	Data Are Disaggregated by Gender, No. of Respondents	Data Are Disaggregated by Race/Ethnicity, No. of Respondents
Availability rates for skilled workers by job category	16	16
Agency utilization rates by job categories	22	23
National labor participation rate benchmarks	6	7
State labor participation rate benchmarks	13	13
Employee satisfaction surveys	16	14
Employee exit surveys	15	11
Employee compensation by job	9	9
Workplace complaints	13	14
Workplace harassment complaints	15	16
Harassment investigation results	15	16
None of the above	3	3

by job categories, with 22 agencies surveyed collecting data by gender and 23 by race/ethnicity. Most of the agencies use data disaggregated by both gender and race/ethnicity.

Survey Results – Communicating Gender Equity Practices and Progress

The majority (28) of the agencies surveyed that have practices to advance gender equity share their findings related to the data collection and assessment activities mentioned above, with 18 agencies sharing internally and 10 agencies sharing publicly. Most (28 agencies) of the surveyed agencies that have gender equity practices in place also emphasize diversity and inclusion in their organization’s mission, vision, or value statements. For many of the state transportation agencies that have practices that advance gender equity, there is an emphasis on gender DEI in their organization’s strategic plan (25 agencies). Figure 13 shows the results. The response results for this item are illustrated in Figures 13 and 14, where Figure 14 shows the response breakdown by state.

The survey response data for agencies that have gender DEI in value statements were compared to data for agencies that do not. No significant trends were found, likely because the sample size for agencies that do not have such statements is small (6 of the 34 agencies with practices in place). It is worth noting that agencies that reported having a DEI officer responsible for gender diversity initiatives also indicated having a gender DEI emphasis in their value statements.

Many of the transportation agencies that have practices for advancing gender equity also have regular communications shared by leadership agency-wide regarding the importance of diversity, equity, and inclusion and progress within the agency (23 agencies). As shown in Figure 15, of the state transportation agencies that have practices in place to advance gender equity, the majority of them have formal training programs for leadership that relate to diversity, equity, and inclusion (30 agencies), with 12 agencies having these programs on a volunteer basis and 18 agencies as mandatory training.

Survey Results – Accountability

Most of the state transportation agencies with practices to advance gender equity also have a process for ensuring managers implement diversity policies and support an inclusive and equitable workplace environment (19 agencies), while 12 agencies do not, and 3 agencies are unsure. Of the agencies that have gender diversity practices, 11 agencies have systems in place to review

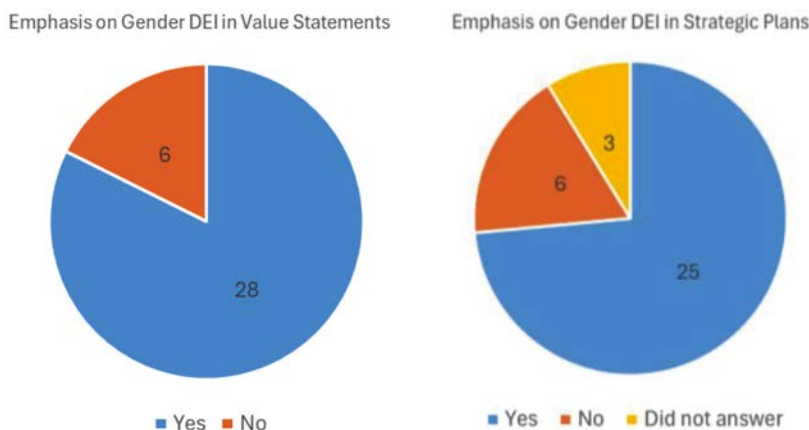


Figure 13. Responses from agencies with practices in place to advance gender equity on the emphasis placed on gender DEI in their value statements (left) and strategic plans (right).

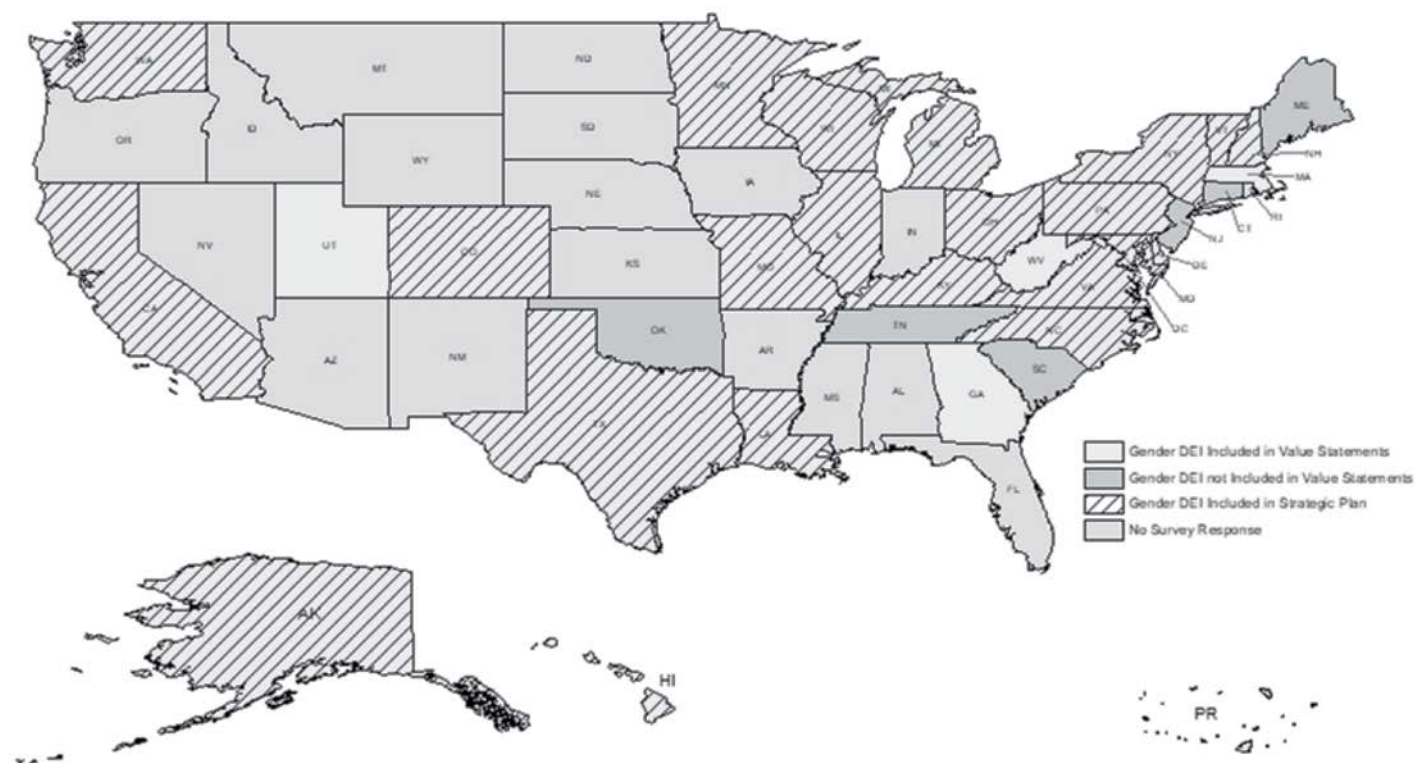


Figure 14. Responses from agencies with practices to advance gender equity on the emphasis placed on gender DEI in value statements and strategic plans, by state.

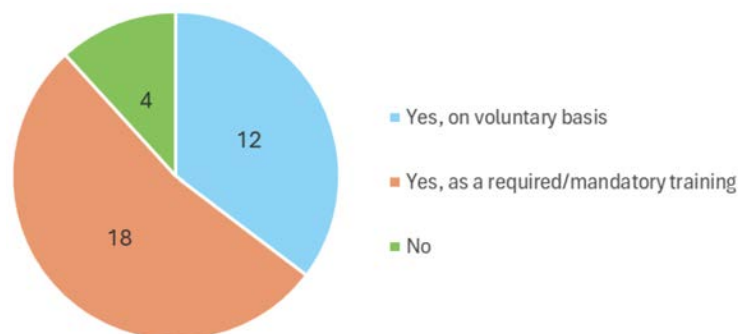


Figure 15. Responses from agencies with gender equity practices on formal training programs for leadership related to DEI.

resource content or processes for gender bias, such as meeting materials, work assignment delegations, health and safety guidelines, and hiring criteria. However, 22 agencies do not have systems to review gender bias.

Approximately half of the agencies that have gender diversity practices have assessed employee perspectives on progress toward diversity goals and inclusive workplace culture (17 agencies).

Survey Results – Employee Engagement

Many of the agencies with gender equity advancement practices have attempted to learn about the needs and experiences of their employees that are from different groups protected from employment discrimination by the EEOC based on race, sex, gender identity, sexual orientation, age, and

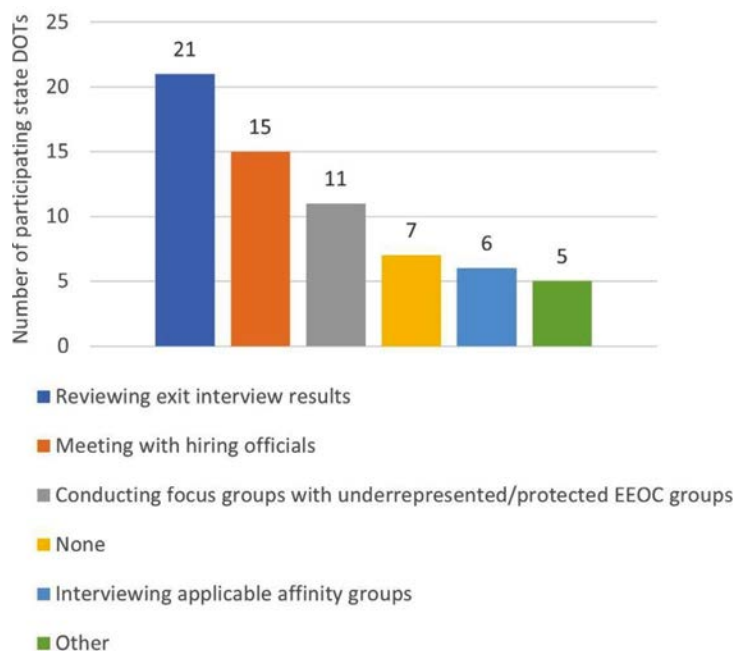


Figure 16. Activities used to learn about the needs and experiences of employees from EEOC protected groups.

disability status. Respondents could select as many options as were applicable to their agency. As shown in Figure 16, some of these activities or practices include reviewing exit interview results (21 agencies), meeting with hiring officials (15 agencies), conducting focus groups with protected EEOC groups (11 agencies), and interviewing applicable affinity groups (6 agencies). Other practices include an annual employment engagement survey and employee resource groups.

Survey Results – Gender Identities

A majority of the transportation agencies that have gender equity advancement practices (19 agencies) acknowledge nonbinary gender identities, although 5 agencies do not, and 8 agencies reported that they are unsure. Many of the state transportation agencies surveyed that have practices to advance gender equity (20 agencies) have policies, resources, or programs in place to ensure a welcoming environment and to support employees with diverse gender identities, while 13 agencies do not. These policies also include respecting preferred pronouns and names. It should be noted that state DOTs may be restricted to collecting gender identity information in a particular way based on state policies, legislation, and definitions of sex.

Survey Results – Future Plans

The 11 agencies that do not currently have practices or policies in place were asked if they had any plans to do so in the future. Four of the 11 state transportation agencies indicated plans for future initiatives and programs that could be implemented to further improve diversity, such as recruitment, retention, and leadership practices. They were asked to specify examples of the types of programs, policies, or initiatives they are planning to explore, and they could select as many options as were applicable to their agency. As shown in Figure 17, the most frequently planned future initiatives were recruitment practices, such as gender-inclusive language in recruitment materials, gender diverse staff for recruiting events, educational outreach, and engagement initiatives (3 agencies); and family-friendly initiatives such as flexible scheduling, childcare support (3 agencies); and training programs (3 agencies).

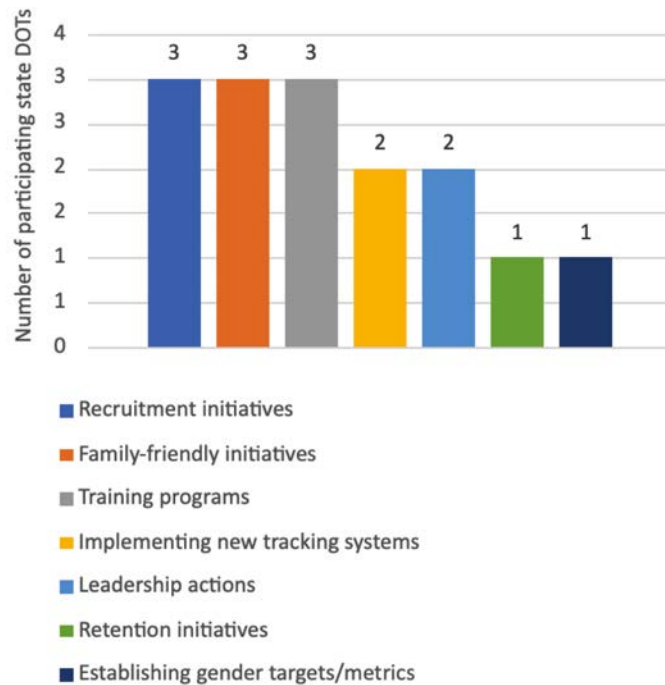


Figure 17. Future initiatives and programs to explore to further improve diversity.

Twenty-eight of the state transportation agencies with policies in place for gender equity also indicated being willing to participate in a brief follow-up interview.

Summary

The survey results indicate that most of the responding state DOTs have a variety of practices or policies in place to address gender equity in their workforce. While governance structures varied, most agencies indicated multiple areas of responsibility for implementing such practices. Retention initiatives were the most frequently reported practices implemented to advance gender equity, with recruitment efforts following closely behind and advancement programs being somewhat less frequent. The main knowledge and practice gap identified through this survey effort is in data collection and analysis. The result is a lack of evidence for practice effectiveness. While many agencies are collecting data, there is a significant amount of anecdotal evidence being relied upon. There are opportunities for more robust data collection and analysis practices that can drive data-informed decision-making for improving gender diversity outcomes in state DOT workforces.

While the survey garnered a high percentage of responses from state agencies (87%) and each survey item had a low non-response rate (less than 7%), it is important to note that there are limitations to this study. First, not all state agencies responded to the survey. Second, while the survey was developed so that it could be shared with and completed by more than one person in the agency, there is no assurance that this occurred when needed. In addition, given the significant fraction of agencies that reported multiple lines of responsibility for DEI efforts, the survey may not capture the breadth of activities and data collection efforts if multiple units did not contribute to the responses. While the survey instructions stated that agencies should provide responses based on their internal workforce rather than on external workers, if the responding parties did not read the instructions carefully, this could also lead to some data inaccuracies. Finally, given the somewhat politically charged nature of the topic in some states, some respondents may not have felt comfortable reporting detailed information about their DEI initiatives.

CHAPTER 4

Case Examples

The survey conducted with state DOTs included a question regarding the respondents' willingness to participate in a follow-up interview. The majority of responding agencies (28) indicated a willingness to do so. The authors examined responses to identify states with extensive practices in multiple areas related to gender equity. A list of eight states was developed to include examples of a diverse range of practices and to provide size, geographical, and contextual diversity. All eight states were contacted, and six responded and scheduled interviews with the project team in April and May 2023. Participating states are illustrated in Figure 18. The interviews were conducted via a web-based platform (Teams or WebEx). Following the interviews, participants were asked to review notes from the project team and to provide any additions they felt necessary to generate detailed understanding of their gender equity initiatives. Seven interview questions were developed and used to facilitate conversations with participating states. The questions were designed to solicit greater insight into current gender equity practices; barriers to implementation, data collection, and accountability processes; and assessment findings.

Case Example – Alaska Department of Transportation and Public Facilities

The Alaska Department of Transportation and Public Facilities (AK DOT & PF) employed 2,781 full-time employees in fiscal year 2022, of which approximately 26% were female and 74% male (AK DOT & PF 2022). According to U.S. Bureau of Labor Statistics data, 46% of Alaska's working population is female.

Gender Equity Data Collection Tools and Analysis

Workforce demographic analysis focused on gender equity is primarily accomplished through the AK DOT & PF's annual Equal Employment Opportunity (EEO) Plan. Oversight of plan implementation is handled jointly by the Equal Employment Opportunity Officer and the Affirmative Action Officer with shared responsibility for implementation from Human Resources and department supervisors and managers.

The AK DOT & PF utilizes NEOGOV to collect and analyze information on applicant pools and recruitment data. The state uses an online application system, Workplace Alaska (WPAK), for all applications to state employment. The system does not require applicants to enter demographic data but does allow for voluntary disclosures. Analysis of recruitment data by demographic categories is thereby limited to applicants voluntarily entering the information. The AK DOT & PF's most recent EEO Plan noted that achieving a 1% increase in the ratio of female employees from the previous year required 27 new full-time appointments of females to positions previously occupied by males (AK DOT & PF 2022).

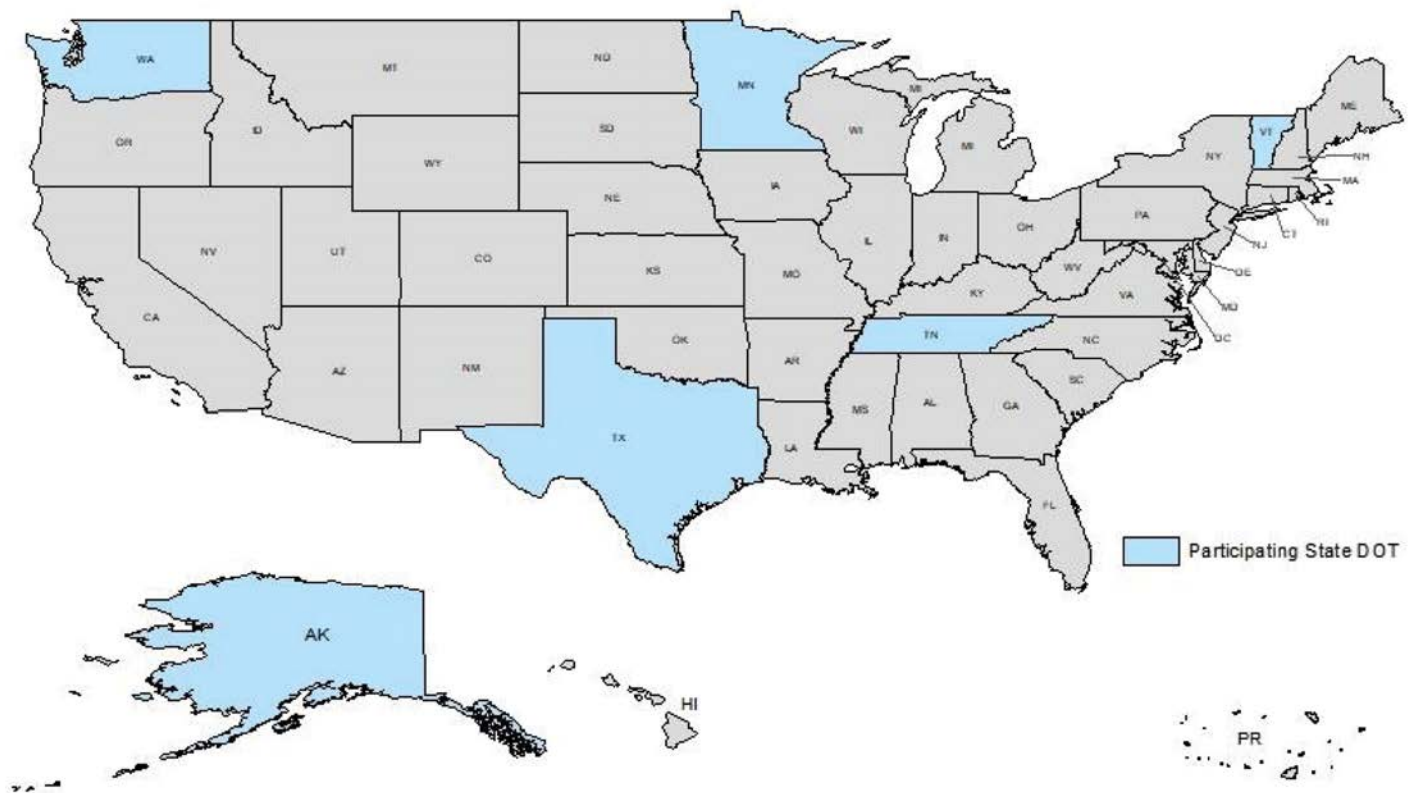


Figure 18. Geographic distribution of state DOTs participating in case example interviews.

Demographic data analysis on incumbent workers is performed on full-time permanent staff using EEO-4 occupational categories. IRIS and Alder are two systems in use for workforce and human resources management within the agency. Reports generated by these systems are reviewed by the Employee Planning and Information Center. Workforce data analysis includes information on promotions and separations, disaggregated by gender and race/ethnicity. In addition to separation data, the agency conducts exit surveys to assess retention issues. Review of exit surveys find reasons for leaving generally relate to pay or conditions and not specifically to gender.

The majority of the agency's staff is unionized. Collective bargaining agreements for staff represented by various unions may stipulate specific salary levels or seniority provisions for initial appointments or advancements. Compensation and benefits are based on job class only.

The agency noted that the number of promotions granted to female employees has been increasing over time, which may help improve recruitment as hiring panels and managers become more diverse. The agency does not set specific targets for workforce gender diversity, but tracks changes and trends. Data analysis currently conducted has not provided clear evidence to determine which specific agency practices have been most effective in increasing gender diversity in the workforce.

Leadership Structures and Practices

The State of Alaska EEO Program is managed by the Division of Personnel and Labor Relations at the state's Department of Administration and includes the statement:

The State of Alaska, as an employer and service provider, recognizes the need to respect and treat equally all people it hires and serves. We also recognize that the State is in a position to teach by example and offer leadership in sensitivity to diversity. Our concept of diversity is broad, extending beyond those categories of peoples formally recognized and protected by law. Valuing the diversity of a workforce representative of all Alaskans enriches the quality of our service to the people of Alaska. (Source: <https://doa.alaska.gov/dop/eoo/>)

Alaska DOT & PF leadership is directly responsible for the implementation of EEO policies. The Deputy Commissioner for the DOT is the EEO Officer and reports to the Commissioner. The Affirmative Action Officer is the Administration Services Deputy Director and works with human resources to implement the agency's Equal Employment Opportunity Plan. Regional directors and managers are responsible for effective policy implementation in their regions, and line managers and supervisors are responsible for implementation at their specific levels. Diversity training is offered to staff in leadership positions and a DEI Team works with different department training programs to identify areas for improvement. Monthly Leadership Seminars cover a wide range of topics, including topics related to gender identity and creating a culture of respect. Altogether, everyone at the AK DOT & PF is expected to support a work climate that values gender diversity.

Workforce and workplace culture are embedded into the agency's GEARS Project (Figure 19), which leverages strategic planning to envision how teams will work together to achieve organizational excellence. The workforce gear focuses attention on recruitment, retention, training, and professional development. In recognition that workplace culture plays a role in attracting and retaining a variety of employees, the culture gear focuses on organizational values, ways of working, and teaming.

Current Practices to Achieve Gender Equity

Alaska DOT & PF focuses recruitment efforts on using gender inclusive imagery and language in agency communications and job postings. Whenever possible, the agency uses inclusive hiring panels. The agency also puts significant effort into making workspaces more inclusive to aid in employee retention. Managers are encouraged to create welcoming spaces where employees will want to stay. Everyone completes online diversity training when beginning employment with the state of Alaska. The DOT & PF additionally offers EEO trainings for all staff and offers training on inclusive workplace culture.

Childcare issues frequently come up in the legislature and during Human Resources meetings because there is a shortage of childcare options in many localities. Human Resources recognizes



Figure 19. *GEARS Project: Teams working together on solutions to achieve organizational excellence.*

The working conditions you can expect:

This position is in the Atwood Building in downtown Anchorage, with a private office looking across town to the Chugach Mountains. The hours can be flexible and occasional telework is possible. The work will require infrequent, irregular, short-duration travel to Juneau and/or Sitka.

Figure 20. Sample recruitment bulletin highlighting flexible work hours and telework options.
(Source: <https://doa.alaska.gov/dop/workplace/hiringManagerResources/>)

that the absence of childcare in the community is a real issue, and therefore works with staff whenever possible to be flexible with work schedules. Sometimes this may involve amending union bargaining agreements for some crews to ensure options for flexible schedules. Flexible work schedules might include varied work weeks or reduced hours. Whenever possible, opportunities for teleworking options are advertised in job announcements if such an arrangement is compatible with the roles and responsibilities of the open position (Figure 20).

Unions were noted to be proactive about offering targeted health and wellness initiatives to employees. In conjunction with the federal Family and Medical Leave Act (FMLA), which provides up to 12 weeks of protected unpaid leave for qualifying conditions, and Military Family Leave (MFL), which provides 26 weeks of unpaid protected leave to caretakers of active military members with serious health conditions, employees of the state of Alaska are also covered by the Alaska Family Leave Act (AFLA), which provides for up to 18 weeks of job protected absences for care of a child after birth or adoption, serious medical conditions, or care for an eligible family member with serious health conditions. The AFLA provides job protection and continuation of benefits during extended period of unpaid leave for qualifying reasons. See Figure 21 for the different options for Alaskan workers.

	FMLA	MFL	AFLA
Employment Thresholds (Eligibility)	<ul style="list-style-type: none"> Employed for 12 months, (need not be consecutive) and Worked 1,250 hours over the past 12 months 	<ul style="list-style-type: none"> Employed for 12 months (need not be consecutive), and Worked 1,250 hours over the past 12 months 	<ul style="list-style-type: none"> Employed 35 hours/week for 6 consecutive months, or 17 ½ hours/week for 12 consecutive months
Absence	<ul style="list-style-type: none"> 12 weeks 	<ul style="list-style-type: none"> 12 weeks for any qualifying exigency 26 weeks to care for a military member's or veteran's serious illness or injury sustained in line of duty on active duty 	<ul style="list-style-type: none"> 18 weeks
Frequency	<ul style="list-style-type: none"> Over a 12-month period 	<ul style="list-style-type: none"> Over a 12-month period 	Over a: <ul style="list-style-type: none"> 24-month period (medical) 12-month period (parental)
Medical Leave is taken for (Serious Health Condition)	<ul style="list-style-type: none"> Employee Family Member 	<ul style="list-style-type: none"> Military member Veteran (active duty within the last 5 years) 	<ul style="list-style-type: none"> Employee Family Member
Military Family leave is taken for		<ul style="list-style-type: none"> Any qualifying exigency A covered servicemember's serious illness or injury 	
Reasons Employee takes Parental Leave	<ul style="list-style-type: none"> Pregnancy Childbirth Post-childbirth adoption Placement for adoption Foster Care 		<ul style="list-style-type: none"> Pregnancy Childbirth Post-childbirth adoption Placement for adoption

Figure 21. Comparison of family leave options in Alaska. (Source: <https://doa.alaska.gov/dop/fileadmin/absenceManagement/FamilyLeavePublic.pdf>)

To assist employees to advance into leadership positions, AK DOT & PF offers executive coaching and leadership programs that are offered to all employees. Clear career pathways are built into the job classification system used by the state. The classification system makes it transparent to staff what additional credentials, training, or experience they need for promotion to the next step in the career ladder. Human Resources also recently examined and updated performance review procedures and promotion processes to ensure there is no gender bias.

Case Example – Minnesota Department of Transportation

The Minnesota Department of Transportation (MnDOT) employed 4,983 full-time employees in fiscal year 2022, of whom approximately 23% were female and 77% male. According to U.S. Bureau of Labor Statistics data, 47% of Minnesota's population is female.

Gender Equity Data Collection Tools and Analysis

All Minnesota state agencies utilize one application process, which collects initial demographic data if voluntarily entered by applicant. MnDOT participates with the state Enterprise application to collect and analyze demographic data for recruitment and retention strategies. A recent research project focused on gender, race, and specific positions. Project findings highlighted the fact that despite diversity efforts, the DOT workforce remains predominantly male and white, due in part to extremely long tenures and low turnover. However, they have seen some progress in diversity growth over the last three years.

MnDOT produces monthly flash reports that provide internal headcounts by divisions, districts, and positions. Special reports can be requested to display data disaggregated by other categories. An annual human capital report displays trends, retirement, two-year retention rates, and positions that are opening. MnDOT produces a rigorous affirmative action plan that tracks these numbers, and the agency additionally has a separate DEI plan, which sets goals and tracks progress. The latest MnDOT Unified Diversity and Inclusion Plan was approved in 2017 for five years. It focuses on the processes and procedures in three critical areas: workforce and workforce environment; public engagement; and contracting.

The agency has conducted identity-based focus groups and surveys to better understand individuals' experiences. Through this process, agency staff learned that white-identified women shared similar experiences to white-identified men, but BIPOC women did not share the same work experiences as white-identified women. To address this difference, the agency is developing a new Diversity and Inclusion Unified Strategic Plan that will focus on psychological safety as one component of this disparity.

Employee exit surveys at the agency are disaggregated by gender, as are employee satisfaction surveys and "stay" interviews. Analysis has found that BIPOC employees have different experiences and are more likely to say equity and diversity issues are reasons for leaving. For non-BIPOC employees, promotional opportunities and higher pay tend to be the primary reason for departure, and they are also more likely to say they would come back to the DOT.

The agency also tracks the number of complaints and investigations into harassment or discrimination. The number of complaints and investigations has risen; however, this is understood as a positive indicator that employees recognize they have a right to work without feeling or being subjected to discrimination, and they feel safe coming forward with complaints. MnDOT has a policy of no chain of command for complaints, so employees can report to any staff member. The department also has an online reporting form, which allows employees to report wrongdoing or questionable activity observed or experienced on the job, such as discrimination, sexual harassment, violence/threats, misconduct, and so on.

Leadership Structures and Practices

Responsibility for diversity and inclusion efforts is shared among multiple divisions and teams at MnDOT, to include Civil Rights, Human Resources, and the Office of Equity and Diversity. MnDOT has also launched an Advancing Transportation Equity Initiative focused on community engagement and research to incorporate equity into transportation decision-making and to improve access for underserved communities in the state. Although the different offices are focused on various aspects of equity (e.g., workforce, workplace, public engagement, and so on), they remain in communication and collaboration with each other. All teams work from the Diversity and Inclusion Unified Strategic Plan, which feeds into the larger overarching goals of the agency.

Additionally, MnDOT has an Executive Inclusion Council (EIC) made up of senior leaders, the Commissioner and Directors of Human Resources, Civil Rights, Equity and Inclusion, Communications, Tribal Relations, the CFO, and the Chief Council. The EIC provides an overarching umbrella group with a focus on DEI work. The Council commits to individual and organizational development in DEI and provides high-level commitment and support to DEI initiatives. Most EIC members are also involved as champions for specific Employee Resource Groups (described later in this case example). In addition to the EIC, each Assistant Commissioner heading a division has a D&I committee, and each of the eight districts has a D&I team. These individuals and groups all work toward creating and maintaining an inclusive workplace environment where all employees can contribute their best and feel valued.

Leaders at MnDOT have consistently made diversity and equity work a priority. The current Commissioner is a female engineer with a long tenure at MnDOT and extensive experience in DEI work at the agency. DEI is described by leadership as the way MnDOT does business. Cultural competency and an equity lens are embedded in every part of the agency's work from policy development and oversight, community and employee engagement, and all aspects of the work environment (Figure 22).

Current Practices to Achieve Gender Equity

MnDOT is focused on providing leadership opportunities to agency employees. Through its springboard program, they review every level of the organization to identify where there is



Figure 22. *MnDOT community event. (Source: MnDOT)*

underrepresentation, starting with the senior leadership team. If underrepresented demographics are identified at a particular level, the focus is on developing talent at the levels below to create opportunities for staff to springboard into higher-level positions. This process opens the prospect for learning and growth to diverse groups so that they are prepared to advance as opportunities arise in the organization. Similarly, MnDOT encourages supervisors and managers to find opportunities to challenge their employees through stretch and mobility assignments. They also work with supervisors in this process to recognize unconscious bias and to identify talent or untapped potential in people who may have been traditionally overlooked or marginalized. The emphasis is on creating a work environment that is inclusive and welcoming with the goal of making MnDOT an employer of choice.

MnDOT formed nine Employee Resource Groups (ERGs), mostly made up of marginalized, underrepresented groups, which focus on four pillars: professional development, community engagement, recruitment, and retention. The groups are open to anyone, although the leadership of each ERG is made up of members of the target community. ERGs support participation at conferences, speakers, and leadership development events. The groups receive \$3,000 annually to host signature events. An Organizational Development Specialist position in the Office of Equity and Diversity is dedicated solely to supporting and developing the ERGs.

The first ERGs were established in 2012 following extended viability research, design, and development. Examples of focus areas include LGBTQIA2S+ and allies, employees with disabilities, veterans, autism spectrum/neurodiversity, and groups based on various racial/ethnic identities.

Each ERG has the opportunity to meet with senior leaders on the Executive Inclusion Council during regularly scheduled quarterly sessions. These sessions provide members with an opportunity to talk about planned events, share personal experiences, and exchange ideas with EIC members about any changes they would like to see at MnDOT. These conversations have aided in the development of new programs to support employees.

The largest ERG is the Strategic Women Advancing Transportation (SWAT) group. The group's purpose is to foster mentorship and to advance the leadership of women. Many members of the SWAT group have advanced into senior-level positions within the agency. SWAT activities include support for women to attend conferences and training opportunities for leadership development. Group leaders work to identify springboard positions by comparing hiring data with statewide availability to help members in underutilized areas prepare for leadership opportunities. SWAT hosts an annual professional development day and works with Human Resources to participate in job fairs and to support other recruitment activities. In recognition of these activities, MnDOT recently received an Employer of the Year award from WTS.

ERGs provide support to Human Resources at recruitment events; likewise, HR and other MnDOT representatives participate in ERG community events to show support. For instance, MnDOT staff participate in a dragon boat race hosted by the Asian Employee Resource Group each year (Figure 23), and a snowplow is regularly featured in the pride parade (Figure 24).

Human Resource recruitment specialists also work with hiring managers to create recruitment strategies for open positions. They develop marketing and outreach strategies to underrepresented groups, which include targeted trade magazines and outreach to minority-serving institutions, such as Historically Black Colleges and Universities (HBCUs). The Office of Equity and Diversity (OED) reviews all recommended hires and monitors for bias, particularly regarding gender, race, and disability. Hiring managers are required to justify all hires. The agency offers training on unconscious bias in the hiring and selection process. Recruitment strategies are designed to guide hiring managers to be more effective at attracting diverse hiring pools.

In response to concerns arising from COVID-19-related travel restrictions when representatives from the OED were not able to travel to meet with district staff, MnDOT created a pilot



Figure 23. *MnDOT employees participate in a dragon boat race. (Source: MnDOT)*



Figure 24. *MnDOT Snowplow and staff participate in Pride parade. (Source: MnDOT)*

program, which trained Peer Equity and Inclusion Coaches (PEICs) to identify situations of concern and learn when and how to intervene. OED identified and trained staff from across the state to become peer coaches and provided them with resources and support. The program was continued after travel restrictions were lifted because the agency found that district staff were generally more comfortable talking with peer coaches since coaches already work with them on a day-to-day basis.

All new employees participate in mandatory Respectful Workplace training and staff participate in a refresher course every five years. Managers participate in a mandatory Supervising a Respectful Workplace training aimed at helping them set the tone and guide an inclusive work environment.

Case Example – Tennessee Department of Transportation

The Tennessee Department of Transportation (TDOT) employed 3,545 full-time employees in 2023, of whom approximately 21% were female and 79% male. According to U.S. Bureau of Labor Statistics data, 47% of Tennessee’s working population is female.

Gender Equity Data Collection Tools and Analysis

TDOT has recently developed a robust data management and analysis tool via the Power BI platform. The agency now tracks numerous workforce statistics through comprehensive dashboards that allow real-time data to be viewed and trends over time to be examined. The dashboard was developed in response to research TDOT conducted evaluating strategies for attracting, retaining, and advancing underrepresented populations within the organization. The dashboard provides multiple metrics for assessing gender equity. Gender representation is tracked for the organization as a whole as well as by job classification. Gender data is also analyzed by generation, which has allowed TDOT to see how gender diversity has increased. While only 20% of employees of the Baby Boomer generation (born 1955–1964) are female, 35% of Millennials (born 1981–1996), and nearly 39% of Gen X (born 1965–1980) employees are female.

The dashboard also includes hiring and performance data by gender as well as salary data. TDOT is proud of the agency's progress toward gender equity related to salaries, which are at parity. TDOT is also evaluating failure hires more intensively, including by gender, through this dashboard (employees who leave after less than a year). TDOT is focusing heavily on improving the turnover rate for employees, particularly for high-performance employees and new hires. The data dashboard will help inform strategic actions and programs designed to support workforce development and reduce employee turnover moving forward.

Leadership Structures and Practices

The responsibility for diversity and inclusion efforts is shared among multiple divisions and teams at TDOT, including Civil Rights and Human Resources. TDOT is currently undergoing an extensive reorganization with significant changes to its organizational structure, framed under its Empowering People, Influencing Culture (EPIC) initiative (Figure 25). Once complete, a new Human Resources Unit, the Culture, Community, and Communications Office, will focus heavily on promoting a respectful workplace environment and creating a culture where staff recognize that diverse mindsets lead to better outcomes for TDOT. One specific requirement for the new position that will oversee this office is that the manager is a “people first” individual. The changes within Human Resources are intended to shift away from a transactional approach to focus on the environment, place of work, opportunities, the interview process, and a proficiency-based structure for promotions rather than longevity (Figure 26).

TDOT's new organizational structure has a focus on culture from stem to stern that supports employees from the time they enter and throughout their career. This supports long-term solutions to some of the workforce gaps the organization is trying to address. Leadership supports this cultural change and expects to see a lot of impact in terms of a more well-rounded workforce as a result.

Leadership has been influential in the development of TDOT's gender equity outcomes. Over the last several years, commissioners of the agency have placed emphasis on attracting people to the agency that are representative of the communities it serves and have named numerous women to leadership positions. Under the tenure of the current commissioner (Commissioner Eley),



Figure 25. New EPIC logo and tagline. (Source: TDOT)

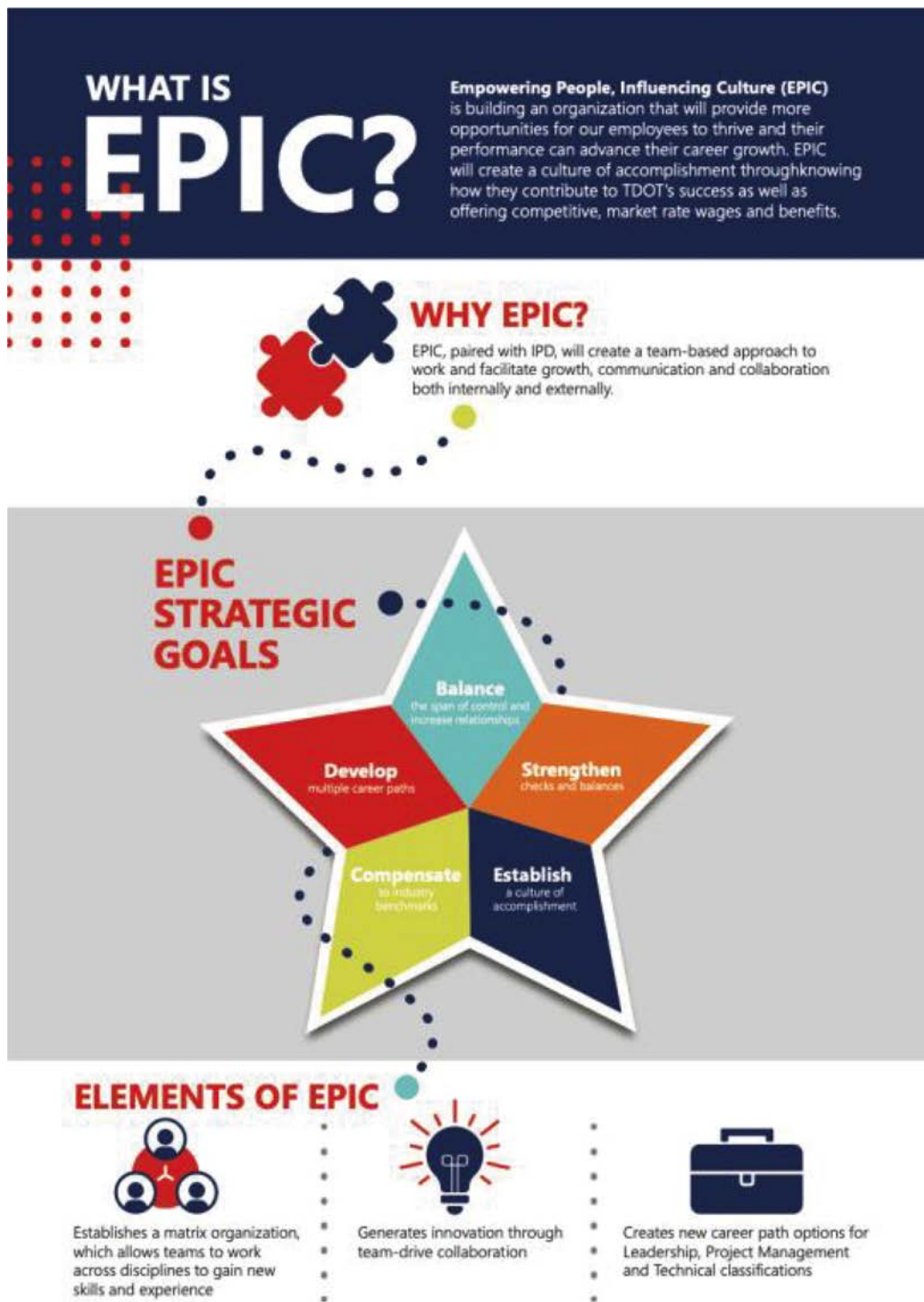


Figure 26. EPIC flyer. (Source: TDOT)

two women have been added to the executive leadership team (leading HR and Engineering units) and now participate in executive leadership meetings and have a voice in strategic direction of the TDOT.

Notable Practices

TDOT has a variety of innovative and effective practices that support the goal of a “happy, healthy environment” for TDOT employees. Three of particular note are (1) a redesigned Graduate Transportation Engineers program; (2) research to develop more effective practices for attracting, retaining, and advancing women and minorities; and (3) the comprehensive data dashboard that is now informing workforce decision-making.

Graduate Transportation Engineering Program (GTEP): A newly redesigned GTEP is a signature development of TDOT (Figure 27). While a program for new engineers had been in place for over 20 years, TDOT developed the new program to address retention issues with its engineers, particularly for female engineers. Prior to the redesign, a hiring panel interviewed candidates and determined where to place them within the agency. Engineers were not encouraged to consider other TDOT opportunities outside the initial division once a placement was made. If the engineer did not connect with the work or did not understand how their role connected to the overall mission of TDOT, they became dissatisfied. Without encouragement to find a better fit within the organization, many new engineers left the agency.

For the new GTEP, TDOT has built a diverse network of post-secondary partners, both in and outside the state, from which to recruit. They have also opened up the program beyond civil engineers to any engineering discipline, significantly expanding the candidate pool. The GTEP curriculum is project based and provides a two-year rotation through core technical curriculum for the candidates. The curriculum was designed to connect the dots across TDOT’s organizational structure, break down silos, and give new engineers a much more meaningful experience. It also includes introduction to growth mindset early in the program. Proficiency-based assessment is built into the rotational program, with candidates being recognized with pay increases as they complete each level of proficiency. A coordinator manages the program in concert with supervisors in each unit that is part of the core competency areas. After completing the first year of the program, candidates can select electives based on their areas of interest and talents.

TDOT has found that the new GTEP has ensured new engineers are not pigeon-holed by demographics, educational institution, or background and are empowered to make decisions about the direction they want their careers to go. TDOT leaders have realized that their perceptions about what areas they thought might attract individuals were false. Selecting placements for them was not working. The new model allows engineers the freedom to choose their path and helps them feel like they belong within TDOT. The structure of the program also helps bridge the gap between education and the work environment. It creates an opportunity for new engineers to transition into their roles more confidently and have a say in where they end up. The new GTEP has been effective for helping new engineers develop career identity and be retained at higher rates.



Figure 27. New GTEP logo. (Source: TDOT)



Figure 28. New communications logo. (Source: TDOT)

Strategies to Attract, Retain, and Utilize Women and Minorities: In 2019, TDOT issued a request for research proposals through its university research process for a project to benchmark the organization's current state, identify successful practices in other states, and develop strategic recommendations related to attracting, retaining, and advancing women and minorities within TDOT. This innovative approach to addressing a significant workforce challenge resulted in a report (Ivey et al. 2021) that provided a framework for TDOT to consider as it developed policies, strategies, and new organizational structure to improve workforce outcomes. Beyond the innovation demonstrated in developing the request for proposal (RFP) through the research process, one of the primary successes has been the translation of the research to practice. TDOT has implemented numerous changes as a result of the study, including the following initiatives.

- A new advisory group facilitated by Civil Rights
- A new organizational structure for Human Resources that will include a new Culture, Community, and Communications Office
- Comprehensive data dashboard for workforce planning and decision-making
- New internal communications (e.g., The Road Ahead; Figure 28) that focus more on building the TDOT brand, highlighting people, providing engaging content, and showcasing a combination of technical information, fun facts, and appreciation for staff accomplishments
- TDOT Spotlight program that allows employees to nominate one another for good work (Figure 29)
- New virtual careers page on the website that highlights positions, roles, and helps people visualize themselves on new pathways

Power BI Data Dashboard: TDOT's Power BI data dashboard (Figure 30) allows the organization to track a multitude of workforce data points affecting the entire employment life cycle. The dashboard is used in determining TDOT's initiatives related to workforce development and supporting informed decision-making.



Figure 29. New spotlight logo and virtual careers webpage. (Source: TDOT)

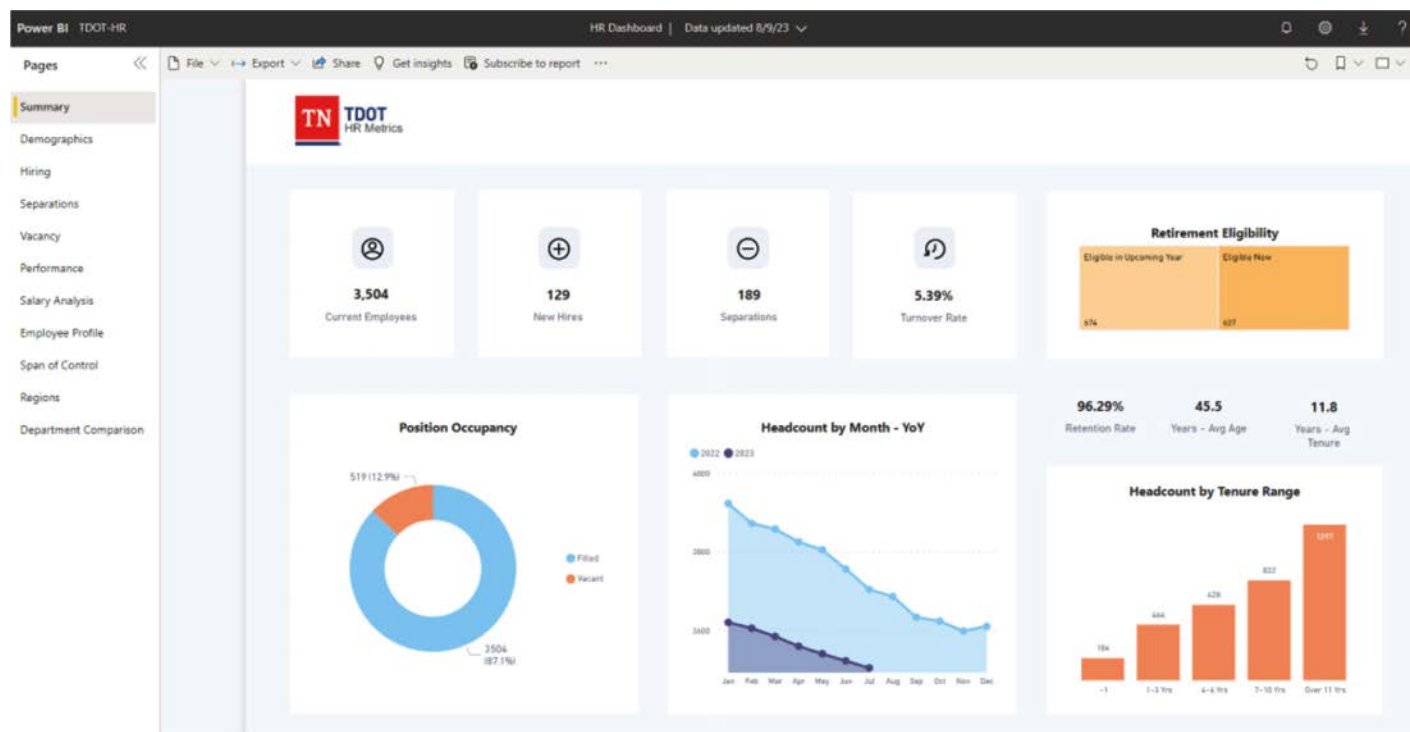


Figure 30. Power BI dashboard (Source: TDOT).

Case Example – Texas Department of Transportation

The Texas Department of Transportation (TxDOT) employed 12,437 full-time employees in fiscal year 2022, of whom 24% were female and 76% male. According to U.S. Bureau of Labor Statistics data, 45% of Texas’s working population is female.

Gender Equity Data Collection Tools and Analysis

TxDOT conducts a “broken rung” analysis to identify where there are obstacles for employees from entry to highest levels. For example, if an analysis reveals that the agency has 20% women at entry level but only 5% at highest levels for a particular job category, staff will then try to figure out where along the career ladder these employees are exiting and what can be done to address the issues. TxDOT has metrics they track regarding representation of women at each level and tracks this over time.

At a certain level/pay grade or above, when looking to hire an individual, the TxDOT now requires a female on the interview panel, which ensures that this perspective is included in the decision-making process. TxDOT developed this policy in recognition of the tendency for individuals to hire people who are like them, so it is important to have diverse hiring panels. TxDOT wants to mirror the communities they serve; thus, the agency pays attention to demographics within the state. While they are interested in attracting and retaining a more diverse workforce, they do not have specific targets.

Additionally, the Classification & Compensation team at TxDOT’s Human Resources Division assesses pay equity and wage gap data to determine if equity adjustments are needed; these assessments are conducted by job category as well as on an individual basis.

Leadership Structures and Practices

TxDOT has individuals whose focus is on education and awareness and who serve as inclusion specialists. They present to employees and department sections across TxDOT. Any district or division can ask for an evaluation of present conditions and how to potentially improve.

Notable Practices

TxDOT's talent acquisition team is focused on branding—framing TxDOT as an employer of choice (Figure 31). When doing outreach with diverse communities, recruiters place a lot of emphasis on why working for TxDOT is a good choice. TxDOT staff attend conferences of the National Association of Women in Construction and Society of Women Engineers (national, state, and student chapter events) for recruiting. They conduct outreach to young women in high schools focused on STEM and conduct other specific outreach to organizations serving women in the transportation industry to expand their reach into diverse talent pools.

Several years ago, TxDOT created employee resource groups. Connecting TxDOT Women was the first group formed. Additional resource groups for Black, Hispanic, Asian, Veteran, and LGBTQ+ employees have also been formed. The resource groups provide a forum for staff to talk about shared experiences, offer mentorship, discuss career development, and focus on enhancing the internal environment to support career advancement. The resource groups were developed because of discussions about representation and retention and the need for staff to be able to see someone like themselves at all levels to be able to envision possible career pathways. Human resources leadership sets up quarterly meetings with the groups to hear feedback or ideas on how TxDOT can improve its workplace environment.

TxDOT also focuses on improving female representation in leadership roles. The agency hosts a women's mid-career and an executive leadership program to help women aspiring to be leaders prepare for advancement opportunities.

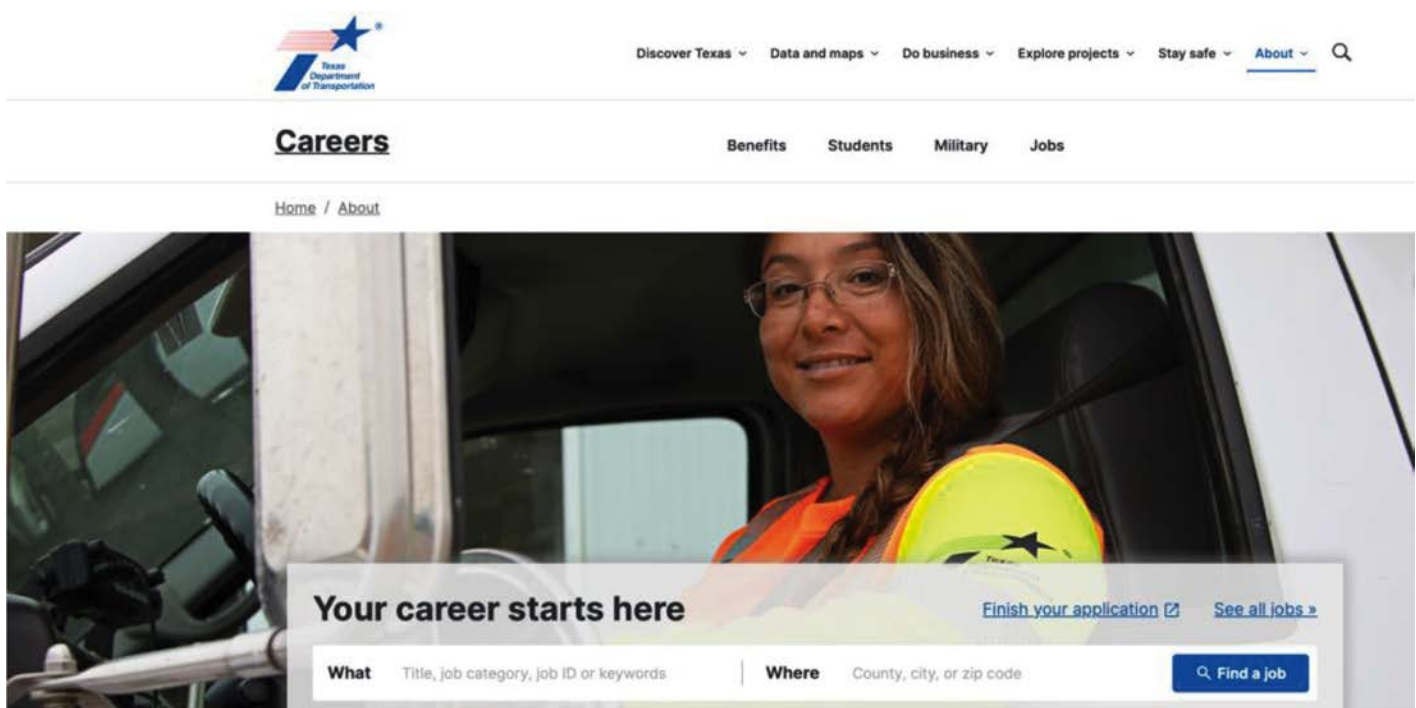


Figure 31. Screenshot from TxDOT Careers website. (Source: <https://www.txdot.gov/about/careers.html>)

Additionally, TxDOT has a variety of family-friendly programs and policies to support staff. The agency offers a family leave pool to allow employees to bond with children during the first year. All employees can donate paid time off to the pool, and then employees who have had a child can apply for additional time off to bond with their child. The agency also has an “infants at work” program. This allows employees to bring their child from 0 to 6 months to work with them. While the program is in a pilot stage, there has been good feedback from employees so far. Parents with young children are also allowed to take sick leave to attend their child’s school activities. TxDOT offers lactation rooms for new mothers as well.

Case Example – Vermont Agency of Transportation

The Vermont Agency of Transportation (VTrans) employed 1,240 full-time employees in fiscal year 2022, of whom approximately 29% were female and 71% male. According to U.S. Bureau of Labor Statistics, 49% of Vermont’s workforce is female.

Gender Equity Data Collection Tools and Analysis

VTrans analyzes applicant pools by gender and examines how many women were selected for interviews and how many were selected for positions as compared to data for men. They also use U.S. Census Bureau data to determine how the agency compares in terms of gender by various job classifications. VTrans tracks these trends over time as well. While they do not set target numbers, they do look at existing gaps between their workforce and the ready/willing/able labor pool available for specific roles. VTrans also reviews turnover rates by gender.

VTrans plans to add questions (e.g., how did you learn about VTrans?) to the onboarding process to better understand which recruitment practices may be most effective. They will also be adding questions to one-on-one sessions with new employees to find out about their past interactions with the agency.

VTrans utilizes an annual employee engagement survey, based on questions developed by Gallup Poll, to review synthesized data to see where there may be workforce issues.

Leadership Structures and Practices

There is strong female representation in the leadership of VTrans. Of 11 top officials in lead or deputy roles, seven are females. This includes the chief engineer and deputy chief engineer.

Civil Rights works with other parts of the organization to inform equity discussions and practices within VTrans. Civil Rights meets with VTrans leadership about once a quarter to identify challenges, determine priorities of leaders, and help to implement strategic actions related to diversity, equity, and inclusion.

The VTrans Strategic Workforce Plan examined agency data and practices through a DEI lens and involved staff across the agency at various levels during development. Committees were formed to facilitate implementation. Originally, a separate committee was established to focus specifically on DEI, but this did not work as well as hoped. The agency realized all committees needed to utilize a DEI lens and changed the process so that a member of Civil Rights participates on all committees to make sure DEI is included in all conversations.

The organization has a commitment to a respectful workplace that is embedded in training across the organization. This originally started with maintenance, but other divisions requested it be added for their staff as well. While not specific to gender, the VTrans strategic plan in general refers to the importance of an inclusive culture and workforce.

VTrans is a unionized workforce for everyone who is a civil servant. There are a few job categories that are part of a collective bargaining agreement where employees may be represented slightly differently. In general, however, policies and procedures related to equity apply to all VTrans staff.

Notable Practices

VTrans has a “you have to see it to be it” mentality and begins the outreach process early. They engage younger staff, especially women, and school alumni in outreach events. VTrans participates in the Vermont Works for Women “Women Can Do” event every year (Figure 32). The audience is high school girls and includes women from VTrans district garages to demonstrate how to use equipment and to talk about their job functions. VTrans is one of many employers who participate and actively engage as sponsors. The event is geared toward non-traditional occupations for women. VTrans also runs the National Summer Transportation Institute program for the state and ensures that a diverse group of people from VTrans are involved. At all outreach events, VTrans tries to ensure that gender diversity and the BIPOC community are represented.

VTrans has identified some occupational categories for mandatory interviews for women and BIPOC applicants, including maintenance and engineering positions, and have found this practice to be successful. The agency now has strong representation by gender in technical and engineering positions as compared to private sector organizations. All hiring managers must go through a hiring justification process when selecting a candidate. This process has made managers more thoughtful and accountable. Civil Rights Division leadership must review justifications and provide concurrence.

For retention, the agency uses many different strategies. VTrans has a training center embedded within the organization and runs a Transportation Leadership Institute. The agency reviews applicants for the leadership institute to make sure there is diverse representation in terms of divisions, genders, levels, and so forth. The Institute is geared toward people with five to seven years of experience, as the agency has found that this is when VTrans tends to lose staff. The Leadership Institute is an important retention program. VTrans also has mentoring, job shadowing, and engineering rotation programs. Out of the last five rotational engineers, three were female, two were male, and all of the females have been retained.

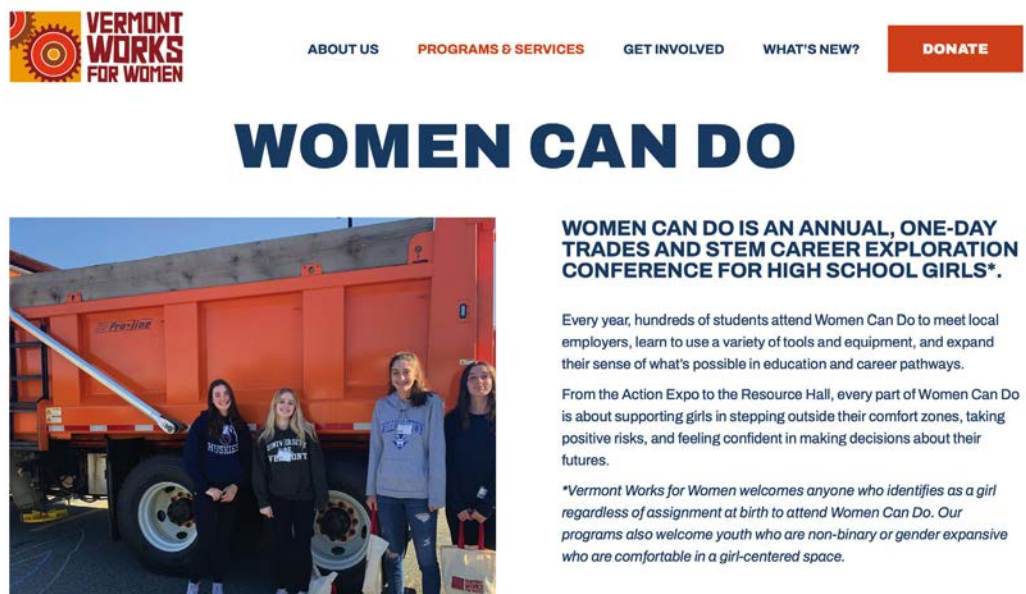


Figure 32. Screenshot from Vermont Works for Women – Women Can Do website. (Source: <https://vtworksforwomen.org/program/women-can-do/>)

The Civil Rights section also helps with the development of competency-based questions for interviews to promote an equitable promotion process. Civil Rights is represented on interview panels to help VTrans staff identify implicit biases. Civil Rights personnel also ask questions to try to uncover biases in the advancement process.

Case Example – Washington State Department of Transportation

The Washington State Department of Transportation (WSDOT) employed 4,936 full-time employees in fiscal year 2021, of whom approximately 24.4% identified as female and 70.4% as male. According to U.S. Bureau of Labor Statistics data, 46% of the state of Washington's workforce is female.

Gender Equity Data Collection Tools and Analysis

The state of Washington utilizes an Enterprise system for employee data tracking. NEOGOV is used as the recruiting system for state employees, which tracks data prior to the hiring process. A lot of work has been done at the Enterprise level statewide to develop dashboards and generate reports. The dashboards provide state agencies a mechanism to analyze a variety of workforce metrics; for example, median salary comparisons, demographic makeup of managers, hiring rates by demographic categories, and so forth. The system allows for robust data analysis efforts, which are integral to the agency's strategic plan. The dashboards are publicly available via Washington state's Office of Financial Management website (Figure 33).

Employee engagement surveys are also important to the agency. Human Resources staff can explore responses to employee engagement surveys by gender to see if females are responding

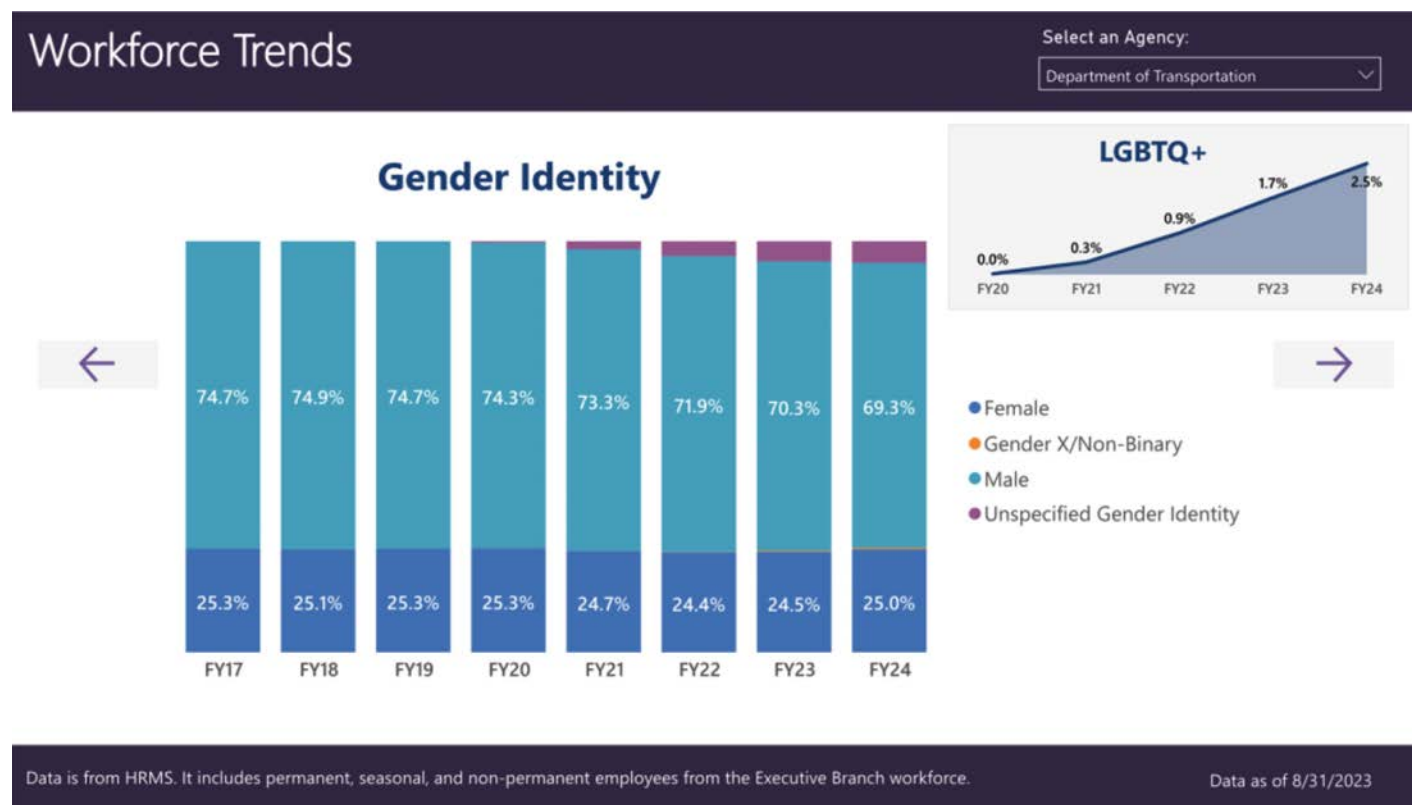


Figure 33. Screenshot from dashboard. (Source: <https://ofm.wa.gov/state-human-resources/workforce-data-planning/virtual-workforce-data-center>)

to questions differently than their male counterparts. They then use this information to create specific action items to improve. The agency is currently working to secure a vendor to conduct pulse surveys so the staff can track information at the individual level to better understand changes in employee satisfaction or perceptions over time. WSDOT also collects qualitative data during employee listening sessions. Recent sessions highlighted the desire among staff for expanded mentorship opportunities. Pulse surveys will help the agency determine whether efforts to respond to this need have been sufficient.

Human Resources staff analyze separation numbers by gender, age, and other demographic information to determine who is leaving the agency. They also review exit interview information, disaggregated by gender and other demographics, to gain insight into reasons for leaving.

Leadership Structures and Practices

Washington DOT's strategic plan integrates resiliency; workforce development; and diversity, equity, inclusion, and belonging as its three primary focus areas. The plan provides the key to successful buy-in throughout the organization. Leaders within the agency must report activities and efforts within each area of the strategic plan. This policy creates accountability as well as friendly competition between divisions. Diversity and inclusion responsibilities are included in leadership position descriptions and performance evaluations. Managers are expected not just to support, but to lead, DEI activities as part of their job responsibilities.

Current Practices to Achieve Gender Equity

WSDOT's strategic plan establishes diversity, equity, inclusion, and belonging as an expectation of every leader and every employee. Beginning from the outreach and recruitment stage, this expectation is shared in how the agency presents itself externally and internally. Using the strategic plan as a framework, the agency can build strategies that everyone in the organization is expected to uphold and work toward. WSDOT integrates inclusion for all underrepresented groups in every aspect of workforce development, from the talent pipeline to the work environment to talent development, workforce analysis, and growth. They have expanded gender analysis to encompass diverse gender identities. Data is analyzed from every stage of the recruitment process at a granular level. Data analysis is used to determine how women and all underrepresented groups are moving through the recruitment process from the application stage to the interview and hiring stage.

The agency uses the same data-driven process to review employees' work cycles and the work environment. They have focused attention on burnout within the agency and found it has a greater impact on women because they are often juggling more at home in addition to work. They hosted listening sessions to garner feedback from staff on what would help to address burnout, using anonymous Mentimeter polling to generate ideas and foster discussion during sessions. Prior to the pandemic, the agency also implemented an "infants in the workplace" policy. This represented a complete culture change for the agency, but it proved to be a morale booster in the workplace. The pandemic led to further adaptations, and leadership has supported increased flexibility and hybrid work options. Engagement surveys show that all staff appreciate this increased flexibility, but women, in particular, are the most affected.

On the recruitment side, the agency has conducted significant workforce analysis to scrutinize position descriptions, eliminate items that create barriers, and ensure that gender-neutral language is used in job postings. WSDOT engages its current staff in outreach to educational institutions and professional associations, such as WTS. Women leaders in the agency often participate in panels and other activities. WSDOT's Office of Equity and Civil Rights (OECR) has

developed a variety of external relationships and partnerships. Human Resources has partnered with OECR to leverage partnerships in its recruitment efforts. They have worked with apprenticeship programs to identify potential applicant pools of underrepresented groups. The agency is also working with the governor on a program to reduce recidivism by providing training and work opportunities for incarcerated persons, including women, on road crews as part of their service and career development. They have lowered barriers for previously incarcerated persons to apply for jobs at the DOT after release by reducing the number of positions that require background checks. For staff who do not interact with the public, background checks are no longer required.

For incumbent staff, WSDOT provides a variety of professional development opportunities. Human Resources facilitates mentorship opportunities and works to ensure that mentors are selected carefully to ensure compatibility (that is, they honor same-gender requests, etc.). The agency increased tuition reimbursement for staff from \$2,000 to \$4,000 per year. It also supports staff participation in transportation-related and leadership conferences. When selecting agency representatives, close attention is paid to demographics to ensure a diverse representation.

Data show a very narrow median wage gap between men and women at the agency. Washington state passed an Equal Pay Act, which makes it illegal to ask a person's salary history during the hiring process to determine their wage rate. This has been deemed by WSDOT staff as helpful in closing the gender pay gap.

Workplace climate is important in the organization. The Human Resources Department recently attained approval to create and fund a new position—a Culture of Belonging Manager. The position focuses on organizational culture change. The new hire is developing training modules on expanding allyship; and the first module focuses on gender equity, for example, by providing training on giving voice to women in meetings. The department also worked with agency leadership to establish individual Diversity Advisory Groups (DAGs) in each region to replace the one statewide group made up of district representatives, which had become too cumbersome. According to the agency's Diversity, Equity and Inclusion Plan (Washington Department of Transportation 2022),

Diversity Advisory Groups (DAG) serve as advisory bodies to employees in supporting diversity, equity, and inclusion efforts throughout the agency. They promote and sustain a working environment at WSDOT that values diversity, equity, and inclusion by integrating the principles of respect and inclusion throughout the agency. DAGs are crucial to leading and supporting the focus, development, and continuous progress towards diversity throughout the agency.

District managers are required to be involved in the DAGs. The advisory groups provide feedback to leadership and host learning opportunities on topics of interest, such as Women's History Month. Requiring leadership participation in DAG efforts has really helped to advance DEI efforts. A new DEI policy is expected to be published by September 2023 that will extend beyond EEO requirements.



CHAPTER 5

Summary of Findings

The objective of this synthesis is to document current state DOT practices related to advancing gender equity in their workforce. The findings highlight challenges and opportunities to address gender imbalance and identify information gaps that could be addressed through further research.

Major Findings

Literature Review

Current research underscores the importance of a comprehensive approach to the employee life cycle where programs are developed collaboratively, threaded across employment stages, and start from intentional planning. Strategies that are frequently used across career life-cycle stages include creating a sense of belonging, fostering a respectful workplace environment, promoting the value of gender diversity in achieving the agency mission, and highlighting the community impact of transportation agencies. State agencies must also start thinking about outreach efforts early, as research indicates students develop gendered ideas of job roles very early—from age three to first grade. While activities targeted so early in the pipeline do not result in an immediate return on investment, this may be the only way, long-term, to ensure a gender-diverse candidate pool becomes the norm rather than the exception.

It is also important that metrics and a system of accountability be in place for increasing gender diversity. Robust data collection and analysis are needed to address gender equity concerns and create a welcoming environment for all employees through data-informed decisions. There are remaining data gaps on gender diversity in the state DOT workforce. Data related to gender identity that is more inclusive than traditional binary definitions of gender, for example, is limited. While some states are beginning to provide more inclusive options in self-report forms for employees, whether gender identity questions can be broadened depends in many cases on legal or policy constraints in individual states.

Intersectionality is an important consideration for gender equity strategies. When multiple underrepresented identities intersect, staff may face a multiplier effect that leads them to leave the organization or industry. Policies and strategies that are informed by intersectional considerations can result in more positive gender diversity and equity outcomes. To successfully integrate intersectionality into the decision-making process, the intentional design of robust data collection and analysis efforts must be considered.

Survey and Case Examples

Almost a quarter of state DOT respondents (11 out of 45) reported that their agencies do not have practices or policies designed to advance gender equity within their workforce. Of the

11 agencies without current practices, only four indicated that they have plans to explore the implementation of new policies, programs, or initiatives in the future.

Of the 34 state DOTs indicating existing practices, agencies reported employing a diversity of strategies to promote gender diversity during the recruitment process. Recruitment practices most frequently implemented include partnerships with educational institutions, ensuring agency recruiters attending outreach events are representative of diverse genders, and use of communications and job messaging with gender-inclusive language and imagery. These practices focus on promoting a diverse and welcoming public face of the agency to potential applicants. Agencies were more likely to formally assess recruitment practices for impact, as compared to retention or advancement practices, and more likely to report data-supported evidence of impact for recruitment practices.

The most frequently cited retention practices comprise offering remote work options, flexible work schedules, EEO trainings, and training focused on inclusive workplace culture. These practices focus on improving work-life balance for employees and enhancing the workplace climate through employee training. Retention strategies were less likely to be formally assessed, and agencies were less likely to report evidence supported by data on the impact of retention practices.

The least variety of practices was reported for the purpose of promoting gender diversity among leadership positions. The most frequently reported strategies were executive coaching/leadership programs and cross-training or rotation programs. These practices emphasize the recognition of the need for agencies to develop a talent pipeline within the organization to prepare staff for advancement into leadership positions. Advancement practices were the least likely to be formally assessed, but agencies were more likely to indicate anecdotal evidence of the impact on advancement practices as compared with recruitment or retention strategies.

Survey responses demonstrate that agencies use a variety of metrics and data sources to gauge progress toward gender equity goals, and most analyze gender equity in conjunction with other protected categories, such as race/ethnicity. The majority of agencies share assessment data only internally.

Although most of the responding agencies incorporate gender diversity, equity, and inclusion in their strategic plans and organizational value statements, a third of the respondents reported having no structures in place to ensure accountability from management for the implementation of policies. Civil Rights and Human Resources offices were most frequently identified as the divisions in charge of managing diversity and inclusion efforts at state DOTs. Human Resources management at state DOTs is often split between state-level and agency-level offices.

Forty percent of state DOT respondents do not have policies, resources, or programs in place to ensure a welcoming environment and to support employees with diverse gender identities. Only 55% of agencies report acknowledgment of nonbinary gender identities among staff. The most commonly reported practice for learning about the needs and experiences of employees from underrepresented groups was reviewing exit interview results, which occurs too late to remedy issues for staff leaving the agency.

Case examples highlight the importance of data collection and analysis to inform the design of interventions. The most innovative strategies that have led to effective practices have come from data-informed decision-making. Additionally, agencies emphasized the importance of connecting dots across the organization and eliminating silos.

Future Research

Gaps in current knowledge about practices employed by state departments of transportation to advance gender equity primarily relate to a lack of assessment data. Without an assessment of practices for impact, it is difficult to determine whether strategies are leading to improvements,

what adaptations need to be made, and where and what type of new strategies should be implemented.

Future research might include:

- Research on the types of data that state DOTs should collect and analysis methods to facilitate linkages between specific practices and workforce impacts.
- Research on assessment methodologies to facilitate the implementation of evidence-based recruitment, retention, and advancement practices at agencies.
- Robust assessment of training program outcomes to include assessment of impacts on both attitudes and workplace behaviors as well as on duration of impacts.
- Research on the impact of specific workplace policies (e.g., flexible work schedules) and employee engagement strategies disaggregated by gender.
- Robust examination of intersectionality and implications for transportation workforce development strategies.
- Analysis of accountability structures that improve diversity outcomes.

In summary, while there is evidence of the impact of many gender equity strategies, there is less research specifically focused on the transportation industry. More research should be conducted to better inform the selection of practices that are the best contextual fit and most likely to be successful; for instance, for specific occupations, with different intersecting identities, or in various geographic locations. Greater focus should also be placed on the design of initiatives so that data collection and assessment strategies are implemented simultaneously with the practice so that impact and effectiveness can be determined. When a program can be demonstrated to provide a significant return on investment in terms of enhanced recruitment, retention, and advancement outcomes related to gender diversity, it is more likely that staff and leadership alike will recognize the value and remain committed to the effort.

Finally, one overarching thread was seen across literature, surveys, and case example interviews in terms of the likelihood of success of an organization's gender diversity, equity, and inclusion efforts—that of intentionality. The agency's leadership must be clear about why such efforts are important to the mission of the organization, ensure that staff across all levels and occupations also recognize and celebrate this value, and put in place a framework of assessment and accountability. It is through these intentional efforts that include well-crafted value statements, strategic planning, and comprehensive communication and assessment that organizations can expect to achieve the greatest improvements to gender diversity outcomes.



References

- AASHTO. 2021 AASHTO Annual State DOT HR Metrics Report. AASHTO, Washington, DC, 2022.
- Alaska Department of Transportation and Public Facilities (AK DOT&PF). 2022 Equal Employment Opportunity Plan. <https://dot.alaska.gov/admsvc/documents/Alaska-DOTPF-FY2022-EEO-Plan.pdf>.
- Alexander, A. TCRP Synthesis 147: Attracting, Retaining, and Advancing Women in Transit. Transportation Research Board, Washington, DC, 2020. <https://doi.org/10.17226/25741>.
- Alteri, A. M., E. V. Rubin, and Y. J. Park. Two Wrongs Do Not Make a Right: Understanding Retaliation for Filing Discrimination Complaints in the U.S. Federal Government. *Public Personnel Management*, Vol. 52, No. 1, 2023, pp. 3–24.
- Amano-Patino, N., J. Aramburu, and Z. Contractor. Is Affirmative Action in Employment Still Effective in the 21st Century? Center for Economic Studies (CES) Report 22-54, Nov. 2022. <https://www.census.gov/library/working-papers/2022/adrm/CES-WP-22-54.html>.
- Anderson, L., C. B. Cronin, D. Fien-Helfman, M. Pohl, B. Cronin, R. Lazaro, V. Lazaro, and A. Singleton. TCRP Report 139: Guidebook for Recruiting, Developing, and Retaining Transit Managers for Fixed-Route Bus and Paratransit Systems. Transportation Research Board of the National Academies, Washington, DC, 2010. <https://doi.org/10.17226/14417>.
- Bashford, S. The Importance of Intersectionality in HR. *HR Magazine*, Sept. 23, 2019. <https://www.hrmagazine.co.uk/content/features/the-importance-of-intersectionality-in-hr/>.
- Battaglio, R. P., Jr., and S. E. Condrey. Civil Service Reform: Examining State and Local Government Cases. *Review of Public Personnel Administration*, Vol. 26, No. 2, 2006, pp. 118–138.
- Bills, T. C. The Great Transformation: The Future of the Data-Driven Transportation Workforce. In *Empowering the New Mobility Workforce* (T. Reeb, ed.), Elsevier, 2019, pp. 31–62.
- Caceres-Rodriguez, R. The Glass Ceiling Revisited: Moving Beyond Discrimination in the Study of Gender in Public Organizations. *Administration & Society*, Vol. 45, No. 6, 2013, pp. 674–709.
- Campbell-Montavalvo, R., G. Kersaint, C. Smith, E. Puccia, O. Sidorova, H. Cooke, H. Wao, J. Martin, J. Skvoretz, G. MacDonald, and R. Lee. The Influence of Professional Engineering Organizations on Women and Underrepresented Minority Students' Fit. *Frontiers in Education*, Vol. 6, 2022. <https://doi.org/10.3389/educ.2021.755471>.
- Carless, S. A., and J. Wintle. Applicant Attraction: The Role of Recruiter Function, Work–Life Balance Policies and Career Salience. *International Journal of Selection and Assessment*, Vol. 15, No. 4, 2007, pp. 394–404.
- Cech, E. A., and W. Rothwell. LGBT Workplace Inequality in the Federal Workforce: Intersectional Processes, Organizational Contexts, and Turnover. *ILR Review*, Vol. 73, No. 1, Jan. 2020, pp. 25–60.
- Chang, E. H., K. Milkman, D. Gromet, R. Rebele, C. Massey, A. Duckworth, and A. Grant. The Mixed Effects of Online Diversity Training. *Proceedings of the National Academy of Sciences*, Vol. 116, No. 16, 2019, pp. 7778–7783.
- Cronin, C. B., A. Alexander, G. Arnold, J. C. Batarse, K. Dray, S. Iliev, J. Jenkins, E. Smallwood, R. Smart, J. Streng, M. Campbell, S. Gallagher, T. Reeb, T. O'Brien, and G. McRae. *Attracting, Retaining, and Developing the 2030 Transportation Workforce: Design, Construction, and Maintenance*. Transportation Research Board of the National Academies, Washington, DC, 2022. <https://doi.org/10.17226/26768>.
- Dejarnette, N. America's Children: Providing Early Exposure to STEM Initiatives. *Reading Improvement*, Vol. 53, No. 4, 2016.
- Diechler, A. Intersectionality: Allowing DE&I Programs to Thrive. *Society of Human Resources Management, Global and Cultural Effectiveness*, July 21, 2021.
- Dobbin, F., and A. Kalev. Why Diversity Programs Fail. *Harvard Business Review*, Vol. 94, No. 11, 2016.
- Drawe, K., and B. Zoghi. Everybody Wins When More Women Are in the Transportation Industry. *Journal of Management and Engineering Integration*, Vol. 14, No. 2, 2021.

- Ely, R., and D. Thomas. Getting Serious About Diversity: Enough Already With the Business Case. *Harvard Business Review*, November–December 2020. <https://hbr.org/2020/11/getting-serious-about-diversity-enough-already-with-the-business-case>.
- European Institute for Gender Equality. Glossary and thesaurus available online. n.d. <https://eige.europa.eu/gendermainstreaming/toolkits/gear/terms-and-definitions>.
- Ewoldson, B. Finding, Keeping, and Advancing Women in the Transportation Workforce. *Transportation Research Board*, March 11, 2020. <https://www.nationalacademies.org/trb/blog/women-in-transportation>.
- Feeney, M. K., and J. M. Stritch. Family-Friendly Policies, Gender, and Work–Life Balance in the Public Sector. *Review of Public Personnel Administration* 39, No. 3, 2019, pp. 422–448.
- Foster, T. B., M. Murray-Close, L. C. Landivar, and M. deWolf. *An Evaluation of the Gender Wage Gap Using Linked Survey and Administrative Data*. Center for Economic Studies (CES) Report 20-34, Nov. 2020. <https://www2ensus.gov/ces/wp/2020/CES-WP-20-34.pdf>.
- Fry, R. *Women Now Outnumber Men in the U.S. College-Educated Labor Force*. Pew Research Center, Sept. 26, 2022. <https://pewrsr.ch/3LMg9FD>.
- Godfrey, J., and R. Bertini. *Attracting and Retaining Women in the Transportation Industry*. Mineta Transportation Institute Report, 2019.
- Government Accountability Office (GAO). *Women in the Workforce: Underrepresentation in Management Positions Persists, and the Gender Pay Gap Varies by Industry and Demographics*. Report to Congressional Requesters, GAO-23-106320, March 2023.
- Gumber, C., and B. Sullivan. *Occupation, Earnings, and Job Characteristics: Current Population Reports*. Center for Economic Studies (CES), pp. 70–178, July 2022. <https://www.census.gov/content/dam/Census/library/publications/2022/demo/p70-178.pdf>.
- Hanson, S., and E. Murakami. Women in Transportation. *Public Roads*, Vol. 73, No. 5, 2010.
- Harper, C., S. Bogus, R. Kommalapati, and D. Choe. *Recruiting, Retaining, and Promoting for Careers at Transportation Agencies*, 2018.
- Hubert H. Humphrey Institute of Public Affairs, University of Minnesota. *TCRP Report 120/NCHRP Report 585: Racial and Gender Diversity in State DOTs and Transit Agencies: A Benchmark Scoping*. Transportation Research Board of the National Academies, Washington, DC, 2007. <https://doi.org/10.17226/22010>.
- Hunt, V., D. Layton, and S. Prince. *Why Diversity Matters*. McKinsey & Company, Jan. 2015. www.mckinsey.com/business-functions/organization/our-insights/why-diversity-matters.
- Hunt, V., S. Prince, S. Dixon-Fyle, and L. Yee. *Delivering Through Diversity*. McKinsey & Company, Jan. 2018. www.mckinsey.com/business-functions/organization/our-insights/delivering-through-diversity.
- Ivey, S. Inspiring the Next Generation Mobility Workforce Through Innovative Industry-Academia Partnerships. In *Empowering the New Mobility Workforce*, T. Reeb, Ed., Elsevier, 2019, pp. 317–348. <https://doi.org/10.1016/B978-0-12-816088-6.000158>.
- Ivey, S., M. Powers, and A. Clark. Building a Business Case for Increasing Diversity in the Transportation Workforce. *TRR News*, September–October 2019, pp. 22–27.
- Ivey, S., J. Camp, K. Triplett, K. Bowman, L. Fite, K. Turner, L. Means, and H. Baroud. *Best Strategies for Hiring, Retaining, and Utilizing Minorities and Women*. Report RES 2019-19. Tennessee Department of Transportation (TDOT), March 23, 2021. <https://rosap.nhtl.bts.gov/view/dot/59911>.
- Jackson, C., J. Jenkins, A. Alexander, A. Bisker, C. Cronin, J. Dorian, K. Dray, S. Iliev, J. Peji, R. Smart, and L. Cullen. *ACRP Research Report 232: Playbook for Cultivating Talent in the Airport Environment*. Transportation Research Board, Washington, DC, 2021. <https://doi.org/10.17226/26178>.
- Joshi, M., and A. Diekmann. My Fair Lady? Inferring Organizational Trust from the Mere Presence of Women in Leadership Roles. *Personality and Social Psychology Bulletin*, Vol. 48, No. 8, 2022. <https://doi.org/10.1177/01461672211035957>.
- Kalev, A., F. Dobbin, and E. Kelly. Best Practices or Best Guesses? Assessing the Efficacy of Corporate Affirmative Action and Diversity Policies. *American Sociological Review*, Vol. 71, No. 4, 2006, pp. 589–617.
- Keen, D., J. Kyritsis, E. Meiser, and M. Rosales. *TCRP Research Report 228: Resource Guide for Improving Diversity and Inclusion Programs for the Public Transportation Industry*. Transportation Research Board, Washington, DC, 2021. <https://doi.org/10.17226/26230>.
- Kermanshachi, S., and H. Sadatsafavi. 2018. Predictive Modeling of U.S. Transportation Workforce Diversity Trends: A Study of Human Capital Recruitment and Retention in Complex Environments. *Proceedings of the ASCE International Conference on Transportation and Development*, Pittsburgh, PA, 2018, pp. 105–114.
- Krop, R. A., J. Rooke, E. Emil, O. Leahu-Aluas, J. McDonnell, N. K. West, and M. Rosales. *ACRP Research Report 217: Guidance for Diversity in Airport Business Contracting and Workforce Programs*. Transportation Research Board, Washington, DC, 2020. <https://doi.org/10.17226/25896>.
- Law, F., L. McGuire, M. Winterbottom, and A. Rutland. Children's Gender Stereotypes in STEM Following a One-Shot Growth Mindset Intervention in a Science Museum. *Frontiers in Psychology*, 2021. <https://doi.org/10.3389/fpsyg.2021.641695>.

- Lawson, M., A. Martin, I. Huda, and M. Martz. Hiring Women Into Senior Leadership Positions is Associated With a Reduction in Gender Stereotypes in Organizational Language. *Psychological and Cognitive Sciences*, Vol. 119, No. 9, 2022. <https://doi.org/10.1073/pnas.2026443119>.
- littleBits. Early Exposure to STEM and its Impact on the Future of Work, 2019. https://gems.education.purdue.edu/wp-content/uploads/2019/STEM_in_Schools_v1-2.pdf.
- Martinez, A., and C. Christnacht. Women are Nearly Half of U.S. Workforce but Only 27% of STEM Workers. *U.S. Census Bureau, America Counts: Stories*, Jan. 26, 2021. <https://www.census.gov/library/stories/2021/01/women-making-gains-in-stem-occupations-but-still-underrepresented.html>.
- Master, A., S. Cheryan, A. Moscatelli, and A. N. Meltzoff. Programming Experience Promotes Higher STEM Motivation Among First-Grade Girls. *Journal of Experimental Child Psychology*, Vol. 160, 2017. <https://doi.org/10.1016/j.jecp.2017.03.013>.
- Master, A., A. Meltzoff, and S. Cheryan. Gender Stereotypes About Interests Start Early and Cause Gender Disparities in Computer Science and Engineering. *Psychological and Cognitive Sciences*, Vol. 118, No. 48, 2021. <https://doi.org/10.1073/pnas.2100030118>.
- McGee, K. Gov. Greg Abbott Tells State Agencies to Stop Considering Diversity in Hiring. *The Texas Tribune*, Feb. 7, 2023.
- McKinsey & Company. Women in the Workplace, 2022. <https://www.mckinsey.com/~media/mckinsey/featured%20insights/diversity%20and%20inclusion/women%20in%20the%20workplace%202022/women-in-the-workplace-2022.pdf>.
- Metro, K., J. Hernandez, C. Harper, and S. M. Bogus. Workforce Resiliency for Careers at Public Transportation Agencies. In *Proceedings Construction Research Congress*, June 12, 2019.
- Meyer, M., J. Mallela, A. Nwankwo, N. Bennett, L. Washington, and S. Lockwood. *Attracting, Retaining, and Developing the Transportation Workforce: Transportation Planners*. Washington, DC, The National Academies Press, 2021. <https://doi.org/10.17226/26429>.
- Mohebbi, M. M., V. Sisiopiku, D. Michalaka, and K. Brown. *A Framework to Promote Diversity & Inclusion in Workforce Development in the Southeast States*. Final Report, Project E5, STRIDE: Southeastern Transportation Research, Innovation, Development and Education Center, Feb. 2023.
- Morrow, P. C., J. C. McElroy, and K. P. Scheibe. Work Unit Incivility, Job Satisfaction, and Total Quality Management Among Transportation Employees. *Transportation Research part E: Logistics and Transportation Review*, Vol. 47, No. 6, 2011, pp. 1210–1220.
- Mulvey, K. L., and M. J. Irvin. Judgments and Reasoning About Exclusion From Counter-Stereotypic STEM Career Choices in Early Childhood. *Early Childhood Research Quarterly*, Vol. 44, 2018. <https://doi.org/10.1016/j.ecresq.2018.03.016>.
- National Academies of Sciences, Engineering, and Medicine. *The Science of Effective Mentorship in STEMM*, Washington, DC, The National Academies Press, 2019. <https://doi.org/10.17226/25568>.
- National Academies of Sciences, Engineering, and Medicine. *Promising Practices for Addressing the Underrepresentation of Women in Science, Engineering, and Medicine: Opening Doors*, Washington, DC, The National Academies Press, 2020. <https://doi.org/10.17226/25585>.
- National Academies of Sciences, Engineering, and Medicine. *Looking Ahead at the Cybersecurity Workforce at the Federal Aviation Administration*. Washington, DC, The National Academies Press, 2021. <https://doi.org/10.17226/26105>.
- National Academies of Sciences, Engineering, and Medicine. *Evaluation of Compensation Data Collected Through the EEO-1 Form*, Washington, DC, The National Academies Press, 2022. <https://doi.org/10.17226/26581>.
- National Academy of Sciences, National Academy of Engineering, and Institute of Medicine. *Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads*, Washington, DC, The National Academies Press, 2011. <https://doi.org/10.17226/12984>.
- National Research Council. *Collecting Compensation Data From Employers*. Washington, DC, The National Academies Press, 2012. <https://doi.org/10.17226/13496>.
- National Science and Technology Council. *Best Practices for Diversity and Inclusion in STEM Education and Research: A Guide by and for Federal Agencies*, 2021. <https://www.whitehouse.gov/wp-content/uploads/2021/09/091621-Best-Practices-for-Diversity-Inclusion-in-STEM.pdf>.
- Ng, W. S., and A. Acker. *The Gender Dimension of the Transport Workforce*. International Transport Forum Discussion Papers, No. 2020/11, OECD Publishing, Paris, 2020. <https://www.itf-oecd.org/gender-dimension-transport-workforce>.
- Nurse, L. Performance Appraisal, Employee Development and Organizational Justice: Exploring the Linkages. *International Journal of Human Resource Management*, Vol. 16, No. 7, 2005, pp. 1176–1194.
- Paluck, E. L., R. Porat, C. S. Clark, and D. P. Green. Prejudice Reduction: Progress and Challenges. *Annual Review of Psychology*, Vol. 72, 2021, pp. 533–560.
- Parker, K. *Women in Majority-Male Workplaces Report Higher Rates of Gender Discrimination*. Pew Research Center, March 7, 2018. <https://www.pewresearch.org/short-reads/2018/03/07/women-in-majority-male-workplaces-report-higher-rates-of-gender-discrimination/>.

- Prien, K. O., and J. S. Schippmann. *Individual Assessment: As Practiced in Industry and Consulting*. Psychology Press, 2003.
- Puentes, R., A. Grossman, B. Eby, and A. Bond. *NCHRP Synthesis 543: Transportation Workforce Planning and Development Strategies*. Transportation Research Board, Washington, DC, 2019. <https://doi.org/10.17226/25624>.
- Rouhanizadeh, B., A. Jafari, and S. Kermanshachi. Women's Representation in Federal Transportation Agencies: A Descriptive Analysis. In *Proceedings of the Creative Construction e-Conference*, 2020, p. 38.
- Rouhanizadeh, B., and S. Kermanshachi. A Gender-Based Analysis of Workforce Promotion Factors in U.S. Transportation Agencies. *Transportation Research Interdisciplinary Perspectives*, Vol. 12, 2021.
- Sánchez-Apellániz, M., and R. Triguero-Sánchez. Leveraging Workforce Diversity Through Human Resource Management Initiatives. In *Handbook of Research on Workforce Diversity in a Global Society: Technologies and Concepts*. IGI Global, 2012, pp. 368–385.
- Society for Human Resources Management. *Women in Leadership: Unequal Access on the Journey to the Top*, 2022. https://shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Pages/SHRM-Women-in-Leadership.aspx?_ga=2.94470111.2137444393.1684767650-1247989699.1684767650.
- Southeast Transportation Workforce Center (SETWC). *Women in Transportation Playbook: Inspire, Engage, and Empower*. Report produced under Federal Highway Administration Agreement No. DTFH6114H00025, 2020. <https://www.memphis.edu/setwc/womenintransportation.pdf>.
- Thomas, E. *Why Gender Lens Investing May Lead to Better Returns for Investors*. Morgan Stanley, Feb. 2023. <https://www.morganstanley.com/access/gender-diversity>.
- Transportation Research Board. *Critical Issues in Transportation 2019*. The National Academies Press, Washington, DC, 2018.
- Transportation Research Board. *Transportation Research Circular E-C268: Insights, Inclusion, and Impact: Framing the Future for Women in Transportation*. Transportation Research Board, Washington, DC, 2021. <https://www.trb.org/Main/Blurbs/181597.aspx>.
- United Nations. *Intersectionality Resource Guide and Toolkit: An Intersectional Approach to Leave No One Behind*, 2021. <https://www.unwomen.org/en/digital-library/publications/2022/01/intersectionality-resource-guide-and-toolkit>.
- U.S. Bureau of Labor Statistics. *Women in the Labor Force: A Databook*. Report 1097. BLS, Washington, DC, 2022. <https://www.bls.gov/opub/reports/womens-databook/2021/home.htm>.
- U.S. Department of Labor, Women's Bureau. *Occupations With the Smallest Share of Women Workers*. Graphic produced from U.S. Census Bureau, American Community Survey 2021 data. <https://www.dol.gov/agencies/wb/data/occupations/occupations-smallest-share-women-workers>.
- U.S. Department of Transportation. *Summary of Public Comments Received on the Department of Transportation's Request for Information on Transportation Equity Data*. Docket No. DOT- OST-2021-0056, 2021. <https://www.transportation.gov/sites/dot.gov/files/2021-11/Summary%20of%20Public%20Comments%20DOT%20Equity%20RFI.pdf>.
- Ward, S., C. Beard, S. Retzlaff, M. Muia, P. Snyder, L. Martin, K. Kenville, and D. Gordon. *ACRP Research Report 202: Developing Innovative Strategies for Aviation Education and Participation*. Transportation Research Board, Washington, DC, 2019.
- Washington, E., J. Johnson, B. McCloskey, P. Toliver, M. Simon, R. Simon, M. Ford, and C. Washington. *TCRP Report 148: Practical Resources for Recruiting Minorities for Chief Executive Officers at Public Transportation Agencies*. Transportation Research Board of the National Academies, Washington, DC, 2011.
- Washington State Department of Transportation. "Diversity, Equity, and Inclusion Plan," August 2022. Available online: https://wsdot.wa.gov/sites/default/files/2022-09/Diversity-Equity-Inclusion-Plan-2022_0.pdf.
- White House. *Fact Sheet: National Strategy on Gender Equity and Equality*, 2021. <https://www.whitehouse.gov/wp-content/uploads/2021/10/National-Strategy-on-Gender-Equity-and-Equality.pdf>.
- Wilson, G. The Rise of At-Will Employment and Racial Inequality in the Public Sector. *Review of Public Personnel Administration*, Vol. 26, No. 2, 2006, pp. 178–187.
- Wilson, L. Intersectionality's Role in the Workplace: Fostering Inclusion Needs for All. *HR Daily Advisor*, May 1, 2023. <https://hrdailyadvisor.blr.com/2023/05/01/intersectionalities-role-in-the-workplace-fostering-inclusion-needs-for-all/>.
- Woolley, A., C. Chabris, A. Pentland, N. Hashmi, and T. Malone. Evidence for a Collective Intelligence Factor in the Performance of Human Groups. *Science*, Vol. 330, No. 6004, 2010, pp. 686–688. DOI: 10.1126/science.1193147.
- Young, S. B. *ACRP Synthesis 18: Aviation Workforce Development Practices*. Transportation Research Board of the National Academies, Washington, DC, 2010.



Abbreviations and Acronyms

AASHTO	American Association of State Highway and Transportation Officials
AFLA	Alaska Family Leave Act
AK DOT & PF	Alaska Department of Transportation and Public Facilities
BIPOC	Black, Indigenous, People of Color
DAG	Diversity Advisory Group
DEI	Diversity, Equity, and Inclusion
D&I	Diversity and Inclusion
DOT	Department of Transportation
EEO	Equal Employment Opportunity
EEOC	Equal Employment Opportunity Commission
ERG	Employee Resource Group
FMLA	Family Medical Leave Act
GAO	Government Accountability Office
HBCU	Historically Black Colleges and Universities
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer, questioning, and/or other
LGBTQIA2S+	Lesbian, Gay, Bisexual, Transgender, Queer and/or questioning, Intersex, Asexual, Two-Spirit, plus other self-identifications
MFL	Military Family Leave
MnDOT	Minnesota Department of Transportation
RFP	Request for Proposals
STEM	Science, Technology, Engineering and Math
TDOT	Tennessee Department of Transportation
TxDOT	Texas Department of Transportation
VTrans	Vermont Department of Transportation
WSDOT	Washington State Department of Transportation
WTS	Women's Transportation Seminar



APPENDIX A

Survey and Interview Questionnaires

NCHRP Synthesis Topic 54-20: Practices to Promote Gender Equity in the DOT Workforce DOT Survey Questionnaire

1. Please enter contact information for your agency below. Contact Information.

- ☐ Agency Name
- ☐ Name of primary point of contact for your agency for this survey
- ☐ Title
- ☐ Division
- ☐ Email
- ☐ Phone

2. Does your agency have practices or policies designed to advance gender equity within your workforce?

- ☐ Yes
- ☐ No

If Q2 is NO:

3. Who is in charge of managing diversity and inclusion within your organization (check all that apply)?

- ☐ Civil Rights
- ☐ Cross-functional or multidisciplinary teams/committees/advisory groups
- ☐ Designated diversity manager (e.g. DEI Officer)
- ☐ Human Resources
- ☐ Not applicable
- ☐ Other (please share specific title and/or division): _____

4. Do you have any plans to explore programs, policies, or initiatives to advance gender equity within your workforce?

- ☐ Yes
- ☐ No

If Q4 is YES:

5. What are some examples of the types of programs, policies, or initiatives you are planning to explore (check all that apply)?

- ☐ Recruitment initiatives (gender-inclusive images and language in recruitment materials, gender diverse staff for recruiting events, educational outreach or engagement initiatives, etc.)
- ☐ Retention initiatives (mentoring programs, employee resource groups, etc.)
- ☐ Family-friendly initiatives (flexible schedule, childcare support, etc.)
- ☐ Training programs
- ☐ Implementing new tracking systems
- ☐ Establishing gender targets/metrics
- ☐ Leadership actions (gender equity policies, value statements, accountability processes, etc.)
- ☐ Other (please specify):

If Q2 is YES:

3. Who is in charge of managing diversity and inclusion within your organization? (check all that apply)

- ☐ Civil Rights
- ☐ Cross-functional or multidisciplinary teams/committees/advisory groups
- ☐ Designated diversity manager (e.g. DEI Officer)
- ☐ Human Resources
- ☐ Other (please share specific title and/or division): _____

4. Please describe your governance and personnel systems (check all that apply):

- ☐ Human Resources managed in-house
- ☐ Human Resources managed at state level
- ☐ Civil Service
- ☐ Open-hire
- ☐ Union
- ☐ Non-Union

5. Please select the strategies/practices your organization uses to promote gender diversity in the recruitment process (check all that apply).

Recruitment Practice	Check if Yes
Early outreach initiatives (K-12 career exposure activities)	
Partnerships with educational institutions (secondary schools, technical or community colleges, universities, etc.)	
Partnerships with Minority Serving Institutions	
Partnerships with professional associations or community-based organizations	
Communications and job messaging with gender-inclusive language and imagery	

Review of candidate selection process for gender bias	
Emphasis on gender inclusive policies in the hiring and onboarding process (family friendly workplace, gender-based affinity groups, etc.)	
Ensuring agency recruiters attending outreach events are representative of diverse genders	
Setting specific targets for applicant pool diversity	
Other (please list specific practice):	

6. Please select the strategies/practices your organization uses to promote gender diversity in the retention process (check all that apply).

Retention Practice	Check if Yes
Employee resource groups (race/ethnicity, gender, etc.)	
Diversity committee or task force	
Employee training focused on inclusive workplace culture	
EEO trainings (compliance issues, complaint process, etc.)	
Flexible work schedule	
Remote work option	
Family and adoption leave beyond FMLA	
Onsite childcare	
Financial support for offsite childcare (flexible benefits)	
Support for career development activities (e.g., participation or membership in professional organizations)	
Targeted health and wellness initiatives	
Inclusive spaces (e.g., lactation rooms, gender neutral facilities)	
Other (please list specific practice):	

7. Please select the strategies/practices your organization uses to promote gender diversity in leadership (check all that apply).

Advancement Practice	Check if Yes
Inclusive mentoring programs	
Executive coaching/leadership programs	
Cross-training or rotation programs	
Clear career pathways	
Evaluation of performance review criteria for gender bias	
Evaluation of promotion process for gender bias	
Formal succession plan in place	
Other (please list specific practice):	

8. Which practices does your agency formally assess for impact related to gender equity (check all that apply)?

- ☐ Recruitment practices
- ☐ Retention practices
- ☐ Advancement/Succession practices
- ☐ None
- ☐ Other (please specify): _____

9. Does your agency have evidence of impact for its recruitment, retention, and advancement practices?

Evidence of gender-equity impact	Yes, anecdotal	Yes, supported by data	No
Recruitment practices			
Retention practices			
Succession planning/advancement practices			
Other (please specify):			

10. Please list specific practices that have resulted in the greatest impact for your agency. (Open response)

11. What metrics does your agency use to gauge progress toward gender equity goals? (check all that apply)

- ☐ Gender diversity of applicant pools
- ☐ Overall gender balance in organization
- ☐ Gender balance by job category in organization
- ☐ Gender balance by job levels (management, entry-level, etc.)
- ☐ Gender balance by race/ethnicity
- ☐ Compensation levels/wage gap
- ☐ Employee satisfaction
- ☐ Harassment/workplace complaints
- ☐ Employee turnover
- ☐ None of the above
- ☐ Other (please specify): _____

12. Does your agency analyze gender equity data in conjunction with other EEOC protected categories (e.g., race, sexual orientation, gender identity, age, disability)?

- ☐ Yes
- ☐ No
- ☐ Unsure

13. Please indicate the type of data your agency uses to assess equity (check all that apply):

	Data disaggregated by gender	Data disaggregated by race/ethnicity
Availability rates for skilled workers by job category (regional or state)		
Agency utilization rates by job categories		
National labor participation rate benchmarks (by occupation)		
State labor participation rate benchmarks (by occupation)		
Employee satisfaction surveys		

Employee exit surveys		
Employee compensation by job		
Workplace complaints		
Workplace harassment complaints		
Harassment investigation results		
None of the above		
Other (Please specify data type): _____		

14. Does your agency share findings related to these data collection and assessment activities?

- ☐ Yes, shared internally
- ☐ Yes, shared publicly
- ☐ No

15. Does your agency emphasize diversity and inclusion in its organizational mission, vision, and/or value statements?

- ☐ Yes
- ☐ No

16. Is an emphasis on gender diversity, equity, and inclusion included in your organization's strategic plan?

- ☐ Yes
- ☐ No
- ☐ Not applicable

17. Are regular communications shared by leadership agency-wide regarding the importance of DEI and progress within the agency?

- ☐ Yes
- ☐ No

18. Is a formal training program related to diversity, equity, and inclusion (DEI) offered to staff in leadership positions?

- ☐ Yes, on voluntary basis
- ☐ Yes, as a required/mandatory training
- ☐ No

19. Is there an accountability process for ensuring managers implement diversity policies and support an inclusive and equitable workplace environment?

- ☐ Yes
- ☐ No
- ☐ Unsure

20. Does your agency have systems in place to review resource content or processes for gender bias (e.g., meeting materials, delegation of work assignments, health and safety guidelines, hiring criteria, etc.)?

- ☐ Yes
- ☐ No

21. Has your agency assessed employees' perspectives on progress toward diversity goals and inclusive workplace culture?

- ☐ Yes
- ☐ No

22. Has your agency attempted to learn about the needs/experiences of employees from different protected EEOC groups based on race, sex, gender identity, sexual orientation, age, disability, etc. by doing any of the following? (check all that apply)

- ☐ Conducting focus groups with underrepresented/protected EEOC groups
- ☐ Interviewing applicable affinity groups
- ☐ Meeting with hiring officials
- ☐ Reviewing exit interview results
- ☐ None of the above
- ☐ Other (please specify practice):

23. Does your agency acknowledge employees' gender identities beyond binary (male/female) options?

- ☐ Yes
- ☐ No
- ☐ Unsure

24. Does your agency have policies, resources, or programs in place to ensure a welcoming environment and to support employees with diverse gender identities, such as respecting pronouns and honoring preferred names?

- ☐ Yes
- ☐ No

25. Are you willing to participate in a brief follow-up interview about this topic?

- ☐ Yes
- ☐ No



APPENDIX B

Survey Results

Question 1: Does your agency have practices or policies designed to advance gender equity within your workforce?		
Options	Yes	34
	No	11
State DOT	Yes	No
Alaska Dept. of Transportation (DOTPF/ASD)	✓	
Arizona Dept. of Transportation		✗
California Dept. of Transportation	✓	
Colorado Dept. of Transportation	✓	
Connecticut Dept. of Transportation	✓	
Delaware Dept. of Transportation	✓	
District department of transportation	✓	
Florida Dept. of Transportation		✗
Georgia Dept. of Transportation	✓	
Hawaii Dept. of Transportation	✓	
Idaho Dept. of Transportation		✗
Iowa Dept. of Transportation		✗
Illinois Dept. of Transportation	✓	
Indiana Dept. of Transportation		✗
Kentucky Transportation Cabinet	✓	
Louisiana Dept. of Transportation and development	✓	
Maine Dept. of Transportation	✓	
Maryland Dept. of Transportation State Highway Administration	✓	
Massachusetts Dept. of Transportation	✓	
Michigan Dept. of Transportation	✓	
Minnesota Dept. of Transportation	✓	
Missouri Dept. of Transportation	✓	
Montana Dept. of Transportation		✗
Nebraska Dept. of Transportation		✗
New Hampshire Dept. of Transportation	✓	
New Jersey Dept. of Transportation	✓	
New York State Dept. of Transportation	✓	
North Carolina Dept. of Transportation	✓	
North Dakota Dept. of Transportation		✗
Ohio Dept. of Transportation	✓	
Oklahoma Dept. of Transportation	✓	
Oregon Dept. of Transportation	✓	
Pennsylvania Dept. of Transportation	✓	
Puerto Rico Highway and Transportation Authority		✗
South Carolina Dept. of Transportation	✓	
South Dakota Dept. of Transportation		✗
Tennessee Dept. of Transportation	✓	
Texas Dept. of Transportation	✓	
Utah Dept. of Transportation	✓	
Vermont Agency of Transportation	✓	
Virginia Dept. of Transportation	✓	
Washington State DOT	✓	
West Virginia Dept. of Transportation	✓	
Wisconsin Dept. of Transportation	✓	
Wyoming Dept. of Transportation		✗
TOTAL	34	11

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Have Policy; Question 2: Who is in charge of managing diversity and inclusion within your organization (check all that apply)?					
Options	Civil Rights	21			
	Cross-functional or multidisciplinary teams/committees/advisory groups	14			
	Designated diversity manager (e.g. DEI Officer)	14			
	Human Resources	21			
	Other (please share specific title and/or division)	7			
State DOT	Civil Rights	Cross-functional or multidisciplinary teams/committees/advisory groups	Designated diversity manager (e.g. DEI Officer)	Human Resources	Other (please share specific title and/or division)
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓	✓	✓	
California Dept. of Transportation	✓	✓			✓
Colorado Dept. of Transportation	✓		✓	✓	
Connecticut Dept. of Transportation	✓	✓		✓	✓
Delaware Dept. of Transportation	✓		✓	✓	
District department of transportation		✓	✓	✓	
Georgia Dept. of Transportation					✓
Hawaii Dept. of Transportation	✓			✓	
Illinois Dept. of Transportation	✓				
Kentucky Transportation Cabinet	✓			✓	
Louisiana Dept. of Transportation and development	✓	✓		✓	
Maine Dept. of Transportation		✓			
Maryland Dept. of Transportation State Highway Administration				✓	✓
Massachusetts Dept. of Transportation	✓	✓	✓	✓	
Michigan Dept. of Transportation		✓	✓		
Minnesota Dept. of Transportation	✓		✓	✓	✓
Missouri Dept. of Transportation					
New Hampshire Dept. of Transportation	✓			✓	
New Jersey Dept. of Transportation	✓			✓	
New York State Dept. of Transportation	✓		✓	✓	
North Carolina Dept. of Transportation	✓	✓			
Ohio Dept. of Transportation		✓	✓	✓	
Oklahoma Dept. of Transportation	✓				
Oregon Dept. of Transportation	✓	✓	✓		
Pennsylvania Dept. of Transportation			✓		
South Carolina Dept. of Transportation				✓	
Tennessee Dept. of Transportation					
Texas Dept. of Transportation			✓	✓	✓
Utah Dept. of Transportation		✓			
Vermont Agency of Transportation	✓				
Virginia Dept. of Transportation	✓			✓	
Washington State DOT	✓	✓	✓	✓	✓
West Virginia Dept. of Transportation				✓	
Wisconsin Dept. of Transportation	✓	✓	✓	✓	
TOTAL	21	14	14	21	7
Have Policy; Question 2: Who is in charge of managing diversity and inclusion within your organization (check all that apply)? - Other (Please share specific title and/or division) - Text					
Options	Other (please share specific title and/or division)				7
State DOT	Specification for Other				
California Dept. of Transportation	EEO				
Connecticut Dept. of Transportation	Office of Equal Opportunity and Diversity				
Georgia Dept. of Transportation	Though EEO and HR measure and report diversity efforts, all hiring managers are expected to be aware of and compliant with diversity measures in terms of hiring equity.				
Maryland Dept. of Transportation State Highway Administration	Office of Equal Opportunity				
Minnesota Dept. of Transportation	Civil Rights, HR, and our Office of Equity and Diversity all manage different components of DEI work for the Agency.				
Texas Dept. of Transportation	The Human Resources Division's D&I Programs Section Director partners with department leadership.				
Washington State DOT	One of WSDOT's three goal areas within the agency's strategic plan is Diversity, Equity, and Inclusion (DEI). Efforts to support this goal area are expected of all employees throughout the agency.				

No Policy; Question 2: Who is in charge of managing diversity and inclusion within your organization (check all that apply)?							
Options	Civil Rights	4					
	Cross-functional or multidisciplinary teams/committees/advisory groups	5					
	Designated diversity manager	1					
	Human Resources	7					
	Other	1					
State DOT	Civil Rights	Cross-functional or multidisciplinary teams/committees/advisory groups	Designated diversity manager	Human Resources	Other		
Arizona Dept. of Transportation		✓					
Florida Dept. of Transportation					✓		
Idaho Dept. of Transportation				✓			
Iowa Dept. of Transportation		✓					
Indiana Dept. of Transportation		✓	✓	✓			
Montana Dept. of Transportation	✓			✓			
Nebraska Dept. of Transportation				✓			
North Dakota Dept. of Transportation		✓					
Puerto Rico Highway and Transportation Authority	✓			✓			
South Dakota Dept. of Transportation	✓	✓		✓			
Wyoming Dept. of Transportation	✓			✓			
TOTAL	4	5	1	7	1		
Have Policy; Question 3: Please describe your governance and personnel systems (check all that apply)							
Options	Human Resources managed in-house	26					
	Human Resources managed at state level	20					
	Civil Service	17					
	Open-hire	5					
	Union	20					
	Non-Union	14					
	Other	0					
State DOT	Human Resources managed in-house	Human Resources managed at state level	Civil Service	Open-hire	Union	Non-Union	Other
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓			✓	✓	
California Dept. of Transportation			✓				
Colorado Dept. of Transportation	✓	✓	✓		✓	✓	
Connecticut Dept. of Transportation	✓	✓			✓	✓	
Delaware Dept. of Transportation	✓	✓			✓	✓	
District department of transportation	✓	✓		✓	✓	✓	
Georgia Dept. of Transportation	✓						
Hawaii Dept. of Transportation	✓	✓	✓	✓	✓	✓	
Illinois Dept. of Transportation	✓	✓	✓	✓	✓	✓	
Kentucky Transportation Cabinet		✓					
Louisiana Dept. of Transportation and development	✓		✓				
Maine Dept. of Transportation	✓		✓		✓		
Maryland Dept. of Transportation State Highway Administration	✓				✓	✓	
Massachusetts Dept. of Transportation	✓		✓		✓		
Michigan Dept. of Transportation	✓	✓	✓		✓	✓	
Minnesota Dept. of Transportation	✓	✓	✓		✓		
Missouri Dept. of Transportation	✓						
New Hampshire Dept. of Transportation	✓				✓		
New Jersey Dept. of Transportation	✓		✓				
New York State Dept. of Transportation	✓		✓	✓	✓	✓	
North Carolina Dept. of Transportation	✓				✓	✓	
Ohio Dept. of Transportation	✓		✓		✓	✓	
Oklahoma Dept. of Transportation	✓						
Oregon Dept. of Transportation	✓	✓	✓	✓	✓		
Pennsylvania Dept. of Transportation		✓	✓		✓	✓	
South Carolina Dept. of Transportation	✓	✓					
Tennessee Dept. of Transportation		✓					
Texas Dept. of Transportation	✓	✓					
Utah Dept. of Transportation		✓					
Vermont Agency of Transportation		✓			✓		
Virginia Dept. of Transportation	✓	✓					
Washington State DOT	✓	✓	✓		✓	✓	
West Virginia Dept. of Transportation	✓		✓			✓	
Wisconsin Dept. of Transportation		✓	✓		✓	✓	
TOTAL	26	20	17	5	20	14	0

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No Policy; Question 3: Do you have any plans to explore programs, policies, or initiatives to advance gender equity within your workforce?			
Options	Yes	4	
	No	6	
	Did not answer	1	
State DOT	Yes	No	Did not answer
Arizona Dept. of Transportation		✓	
Florida Dept. of Transportation		✓	
Idaho Dept. of Transportation		✓	
Iowa Dept. of Transportation	✓		
Indiana Dept. of Transportation		✓	
Montana Dept. of Transportation		✓	
Nebraska Dept. of Transportation	✓		
North Dakota Dept. of Transportation		✓	
Puerto Rico Highway and Transportation Authority	✓		
South Dakota Dept. of Transportation	✓		
Wyoming Dept. of Transportation			✓
TOTAL	4	6	1

Have Policy; Question 4: Please select the strategies/practices your organization uses to promote gender diversity in the recruitment process (check all that apply)					
Options	Early outreach initiatives (K-12 career exposure activities)	25			
	Partnerships with educational institutions (secondary schools, technical or community colleges, universities, etc.)	30			
	Partnerships with Minority Serving Institutions	25			
	Partnerships with professional associations or community-based organizations	25			
	Communications and job messaging with gender-inclusive language and imagery	26			
State DOT	Early outreach initiatives (K-12 career exposure activities)	Partnerships with educational institutions (secondary schools, technical or community colleges, universities, etc.)	Partnerships with Minority Serving Institutions	Partnerships with professional associations or community-based organizations	Communications and job messaging with gender-inclusive language and imagery
Alaska Dept. of Transportation (DOTPF/ASD)					✓
California Dept. of Transportation	✓	✓	✓		✓
Colorado Dept. of Transportation		✓	✓	✓	✓
Connecticut Dept. of Transportation	✓	✓		✓	✓
Delaware Dept. of Transportation	✓	✓	✓	✓	✓
District department of transportation			✓	✓	✓
Georgia Dept. of Transportation		✓	✓		✓
Hawaii Dept. of Transportation	✓	✓			✓
Illinois Dept. of Transportation	✓	✓		✓	✓
Kentucky Transportation Cabinet	✓		✓	✓	
Louisiana Dept. of Transportation and development	✓	✓	✓	✓	✓
Maine Dept. of Transportation	✓	✓		✓	✓
Maryland Dept. of Transportation State Highway Administration		✓	✓	✓	
Massachusetts Dept. of Transportation	✓	✓	✓	✓	✓
Michigan Dept. of Transportation	✓	✓	✓		✓
Minnesota Dept. of Transportation	✓	✓	✓	✓	✓
Missouri Dept. of Transportation	✓	✓	✓	✓	✓
New Hampshire Dept. of Transportation	✓	✓		✓	✓
New Jersey Dept. of Transportation		✓	✓	✓	✓
New York State Dept. of Transportation	✓	✓	✓	✓	
North Carolina Dept. of Transportation	✓	✓	✓	✓	
Ohio Dept. of Transportation	✓	✓	✓	✓	
Oklahoma Dept. of Transportation		✓			✓
Oregon Dept. of Transportation		✓			✓
Pennsylvania Dept. of Transportation		✓			✓
South Carolina Dept. of Transportation	✓	✓	✓	✓	✓
Tennessee Dept. of Transportation	✓	✓		✓	
Texas Dept. of Transportation	✓	✓	✓	✓	✓
Utah Dept. of Transportation	✓	✓		✓	✓
Vermont Agency of Transportation	✓	✓	✓	✓	✓
Virginia Dept. of Transportation	✓		✓		
Washington State DOT	✓	✓	✓	✓	✓
West Virginia Dept. of Transportation	✓	✓	✓	✓	✓
Wisconsin Dept. of Transportation	✓	✓	✓	✓	✓
TOTAL	25	30	25	25	26

Have Policy; Question 4 (Continued) : Please select the strategies/practices your organization uses to promote gender diversity in the recruitment process (check all that apply)					
Options	Review of candidate selection process for gender bias	19			
	Emphasis on gender inclusive policies in the hiring and onboarding process (family friendly workplace, gender-based affinity groups, etc.)	16			
	Ensuring agency recruiters attending outreach events are representative of diverse genders	27			
	Setting specific targets for applicant pool diversity	7			
	Other (please list specific practice):	5			
State DOT	Review of candidate selection process for gender bias	Emphasis on gender inclusive policies in the hiring and onboarding process (family friendly workplace, gender-based affinity groups, etc.)	Ensuring agency recruiters attending outreach events are representative of diverse genders	Setting specific targets for applicant pool diversity	Other (please list specific practice):
Alaska Dept. of Transportation (DOTPF/ASD)					✓
California Dept. of Transportation					
Colorado Dept. of Transportation	✓	✓	✓	✓	
Connecticut Dept. of Transportation	✓		✓		
Delaware Dept. of Transportation					
District department of transportation	✓		✓		
Georgia Dept. of Transportation	✓		✓		
Hawaii Dept. of Transportation					
Illinois Dept. of Transportation		✓	✓		
Kentucky Transportation Cabinet	✓		✓		
Louisiana Dept. of Transportation and development			✓	✓	✓
Maine Dept. of Transportation		✓	✓		
Maryland Dept. of Transportation State Highway Administration	✓	✓			
Massachusetts Dept. of Transportation	✓	✓	✓	✓	
Michigan Dept. of Transportation			✓		
Minnesota Dept. of Transportation	✓	✓	✓		
Missouri Dept. of Transportation	✓	✓	✓		
New Hampshire Dept. of Transportation			✓		
New Jersey Dept. of Transportation	✓		✓		
New York State Dept. of Transportation			✓		
North Carolina Dept. of Transportation	✓		✓	✓	✓
Ohio Dept. of Transportation	✓		✓		
Oklahoma Dept. of Transportation					✓
Oregon Dept. of Transportation	✓	✓	✓	✓	
Pennsylvania Dept. of Transportation			✓		
South Carolina Dept. of Transportation	✓	✓	✓		
Tennessee Dept. of Transportation		✓	✓		
Texas Dept. of Transportation	✓	✓	✓		
Utah Dept. of Transportation	✓	✓			
Vermont Agency of Transportation	✓	✓	✓		
Virginia Dept. of Transportation			✓		
Washington State DOT	✓	✓	✓	✓	✓
West Virginia Dept. of Transportation			✓		
Wisconsin Dept. of Transportation	✓	✓	✓	✓	
TOTAL	19	16	27	7	5
Have Policy; Question 4 (Continued) : Please select the strategies/practices your organization uses to promote gender diversity in the recruitment process (check all that apply) - Other (please list specific practice): - Text					
Options	Other (please list specific practice):				5
State DOT	Specification for Other				
Alaska Dept. of Transportation (DOTPF/ASD)	Inclusive hiring panels, some telework options				
Louisiana Dept. of Transportation and development	Diversity and Inclusion Advisory Council				
North Carolina Dept. of Transportation	HBCU Outreach				
Oklahoma Dept. of Transportation	Education of hiring managers on current state and target for representation				
Washington State DOT	Our agency has consistently utilized data to help us understand our workforce demographics to develop and implement strategies (recruitment, succession planning etc.) and make informed decisions. We proactively engage and work to maintain relationships with institutions, organizations, and communities to recruit so we are able to look like the communities we serve.				

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No Policy; Question 4: What are some examples of the types of programs, policies, or initiatives you are planning to explore (check all that apply)?								
Options	Recruitment initiatives							
	Retention initiatives							
	Family-friendly initiatives							
	Training programs							
	Implementing new tracking systems							
	Establishing gender targets/metrics							
	Leadership actions							
	Did not answer							
State DOT	Recruitment initiatives	Retention initiatives	Family-friendly initiatives	Training programs	Implementing new tracking systems	Establishing gender targets/metrics	Leadership actions	Did not answer
Arizona Dept. of Transportation								✓
Florida Dept. of Transportation								✓
Idaho Dept. of Transportation								✓
Iowa Dept. of Transportation	✓		✓		✓			
Indiana Dept. of Transportation								✓
Montana Dept. of Transportation								✓
Nebraska Dept. of Transportation		✓	✓	✓				
North Dakota Dept. of Transportation								✓
Puerto Rico Highway and Transportation Authority	✓		✓	✓			✓	
South Dakota Dept. of Transportation	✓			✓	✓	✓	✓	
Wyoming Dept. of Transportation								✓
TOTAL	3	1	3	3	2	1	2	7
Have Policy; Question 5: Please select the strategies/practices your organization uses to promote gender diversity in the retention process (check all that apply)								
Options	Employee resource groups (race/ethnicity, gender, etc.)	13						
	Diversity committee or task force	16						
	Employee training focused on inclusive workplace culture	28						
	EEO trainings (compliance issues, complaint process, etc.)	32						
	Flexible work schedule	27						
	Remote work option	32						
	Family and adoption leave beyond FMLA	21						
State DOT	Employee resource groups (race/ethnicity, gender, etc.)	Diversity committee or task force	Employee training focused on inclusive workplace culture	EEO trainings (compliance issues, complaint process, etc.)	Flexible work schedule	Remote work option	Family and adoption leave beyond FMLA	
Alaska Dept. of Transportation (DOTPF/ASD)			✓	✓	✓	✓	✓	
California Dept. of Transportation		✓	✓	✓	✓	✓		
Colorado Dept. of Transportation	✓	✓	✓	✓	✓	✓		
Connecticut Dept. of Transportation		✓	✓	✓	✓	✓	✓	
Delaware Dept. of Transportation			✓	✓	✓	✓	✓	
District department of transportation	✓		✓	✓		✓		
Georgia Dept. of Transportation			✓	✓		✓	✓	
Hawaii Dept. of Transportation				✓	✓	✓		
Illinois Dept. of Transportation			✓	✓	✓	✓	✓	
Kentucky Transportation Cabinet	✓		✓	✓	✓	✓	✓	
Louisiana Dept. of Transportation and development		✓	✓	✓	✓	✓		
Maine Dept. of Transportation	✓		✓	✓		✓	✓	
Maryland Dept. of Transportation State Highway Administration		✓	✓	✓	✓	✓	✓	
Massachusetts Dept. of Transportation	✓	✓	✓	✓	✓	✓	✓	
Michigan Dept. of Transportation	✓			✓	✓	✓	✓	
Minnesota Dept. of Transportation	✓	✓	✓	✓	✓	✓	✓	
Missouri Dept. of Transportation	✓	✓	✓	✓	✓	✓	✓	
New Hampshire Dept. of Transportation				✓	✓	✓	✓	
New Jersey Dept. of Transportation	✓		✓	✓	✓	✓	✓	
New York State Dept. of Transportation		✓		✓	✓	✓	✓	
North Carolina Dept. of Transportation	✓	✓	✓	✓	✓	✓		
Ohio Dept. of Transportation			✓	✓	✓	✓		
Oklahoma Dept. of Transportation				✓	✓	✓		
Oregon Dept. of Transportation	✓	✓	✓		✓	✓		
Pennsylvania Dept. of Transportation		✓	✓		✓	✓		
South Carolina Dept. of Transportation				✓			✓	
Tennessee Dept. of Transportation		✓	✓		✓	✓		
Texas Dept. of Transportation	✓		✓	✓	✓	✓	✓	
Utah Dept. of Transportation		✓		✓	✓	✓	✓	
Vermont Agency of Transportation			✓	✓	✓	✓		
Virginia Dept. of Transportation			✓	✓	✓	✓	✓	
Washington State DOT	✓	✓	✓	✓	✓	✓	✓	
West Virginia Dept. of Transportation			✓	✓				
Wisconsin Dept. of Transportation		✓	✓	✓	✓	✓		
TOTAL	13	16	28	32	27	32	21	

Have Policy; Question 5 (Continued) : Please select the strategies/practices your organization uses to promote gender diversity in the retention process (check all that apply)						
Options	Onsite childcare	3				
	Financial support for offsite childcare (flexible benefits)	6				
	Support for career development activities (e.g., participation or membership in professional organizations)	27				
	Targeted health and wellness initiatives	23				
	Inclusive spaces (e.g., lactation rooms, gender neutral facilities)	26				
	Other (please list specific practice):	2				
State DOT	Onsite childcare	Financial support for offsite childcare (flexible benefits)	Support for career development activities (e.g., participation or membership in professional organizations)	Targeted health and wellness initiatives	Inclusive spaces (e.g., lactation rooms, gender neutral facilities)	Other (please list specific practice):
Alaska Dept. of Transportation (DOTPF/ASD)			✓	✓	✓	
California Dept. of Transportation	✓		✓	✓	✓	
Colorado Dept. of Transportation			✓	✓	✓	
Connecticut Dept. of Transportation			✓		✓	
Delaware Dept. of Transportation		✓	✓	✓	✓	
District department of transportation			✓		✓	
Georgia Dept. of Transportation			✓			
Hawaii Dept. of Transportation				✓	✓	
Illinois Dept. of Transportation			✓	✓	✓	
Kentucky Transportation Cabinet			✓			
Louisiana Dept. of Transportation and development			✓	✓	✓	
Maine Dept. of Transportation					✓	
Maryland Dept. of Transportation State Highway Administration			✓	✓	✓	
Massachusetts Dept. of Transportation	✓	✓	✓	✓	✓	
Michigan Dept. of Transportation		✓				
Minnesota Dept. of Transportation				✓	✓	
Missouri Dept. of Transportation			✓	✓	✓	
New Hampshire Dept. of Transportation			✓		✓	
New Jersey Dept. of Transportation			✓		✓	
New York State Dept. of Transportation			✓	✓		
North Carolina Dept. of Transportation		✓	✓	✓	✓	
Ohio Dept. of Transportation			✓	✓	✓	
Oklahoma Dept. of Transportation			✓			
Oregon Dept. of Transportation			✓	✓	✓	
Pennsylvania Dept. of Transportation	✓			✓		
South Carolina Dept. of Transportation			✓	✓	✓	
Tennessee Dept. of Transportation			✓	✓		
Texas Dept. of Transportation		✓	✓	✓	✓	
Utah Dept. of Transportation			✓	✓	✓	✓
Vermont Agency of Transportation		✓		✓	✓	✓
Virginia Dept. of Transportation				✓	✓	
Washington State DOT			✓	✓	✓	
West Virginia Dept. of Transportation			✓	✓	✓	
Wisconsin Dept. of Transportation			✓	✓	✓	
TOTAL	3	6	27	23	26	2

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Have Policy; Question 6: Please select the strategies/practices your organization uses to promote gender diversity in leadership (check all that apply)								
Options	Inclusive mentoring programs	17						
	Executive coaching/leadership programs	24						
	Cross-training or rotation programs	21						
	Clear career pathways	18						
	Evaluation of performance review criteria for gender bias	4						
	Evaluation of promotion process for gender bias	10						
	Formal succession plan in place	2						
Other (please list specific practice)	3							
State DOT	Inclusive mentoring programs	Executive coaching/leadership programs	Cross-training or rotation programs	Clear career pathways	Evaluation of performance review criteria for gender bias	Evaluation of promotion process for gender bias	Formal succession plan in place	Other (please list specific practice)
Alaska Dept. of Transportation (DOTPF/ASD)		✓		✓	✓	✓		
California Dept. of Transportation	✓	✓	✓				✓	
Colorado Dept. of Transportation	✓			✓				
Connecticut Dept. of Transportation		✓		✓		✓		
Delaware Dept. of Transportation	✓		✓	✓				
District department of transportation	✓	✓	✓					
Georgia Dept. of Transportation		✓	✓		✓	✓		
Hawaii Dept. of Transportation		✓						
Illinois Dept. of Transportation		✓	✓	✓				
Kentucky Transportation Cabinet		✓	✓					
Louisiana Dept. of Transportation and development		✓		✓				
Maine Dept. of Transportation				✓				
Maryland Dept. of Transportation State Highway Administration	✓	✓	✓			✓		
Massachusetts Dept. of Transportation	✓	✓	✓			✓		
Michigan Dept. of Transportation	✓		✓			✓		
Minnesota Dept. of Transportation	✓	✓	✓	✓	✓	✓		
Missouri Dept. of Transportation	✓	✓	✓	✓				
New Hampshire Dept. of Transportation			✓					
New Jersey Dept. of Transportation	✓	✓	✓	✓				✓
New York State Dept. of Transportation		✓		✓				
North Carolina Dept. of Transportation		✓		✓		✓	✓	
Ohio Dept. of Transportation								
Oklahoma Dept. of Transportation			✓					
Oregon Dept. of Transportation		✓	✓			✓		✓
Pennsylvania Dept. of Transportation				✓				
South Carolina Dept. of Transportation		✓						
Tennessee Dept. of Transportation		✓	✓	✓				
Texas Dept. of Transportation	✓	✓	✓					
Utah Dept. of Transportation	✓		✓	✓				
Vermont Agency of Transportation	✓	✓	✓	✓				✓
Virginia Dept. of Transportation	✓							
Washington State DOT	✓	✓	✓	✓				
West Virginia Dept. of Transportation	✓	✓	✓	✓				
Wisconsin Dept. of Transportation	✓				✓	✓		
TOTAL	17	24	21	18	4	10	2	3

Have Policy; Question 7: Which practices does your agency formally assess for impact related to gender equity (check all that apply)?					
Options	Recruitment practices	26			
	Retention practices	16			
	Advancement/Succession practices	13			
	None	4			
	Other (please specify)	4			
State DOT	Recruitment practices	Retention practices	Advancement/Succession practices	None	Other (please specify)
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓	✓		
California Dept. of Transportation					
Colorado Dept. of Transportation	✓	✓	✓		
Connecticut Dept. of Transportation	✓		✓		
Delaware Dept. of Transportation				✓	
District department of transportation	✓	✓			
Georgia Dept. of Transportation	✓	✓	✓		
Hawaii Dept. of Transportation					
Illinois Dept. of Transportation	✓				
Kentucky Transportation Cabinet	✓		✓		
Louisiana Dept. of Transportation and development	✓				✓
Maine Dept. of Transportation	✓	✓			
Maryland Dept. of Transportation State Highway Administration	✓	✓	✓		
Massachusetts Dept. of Transportation	✓	✓	✓		
Michigan Dept. of Transportation	✓				
Minnesota Dept. of Transportation	✓	✓	✓		✓
Missouri Dept. of Transportation	✓	✓			
New Hampshire Dept. of Transportation				✓	
New Jersey Dept. of Transportation	✓	✓	✓		
New York State Dept. of Transportation				✓	
North Carolina Dept. of Transportation	✓				
Ohio Dept. of Transportation	✓	✓			
Oklahoma Dept. of Transportation	✓		✓		
Oregon Dept. of Transportation	✓	✓	✓		
Pennsylvania Dept. of Transportation	✓		✓		
South Carolina Dept. of Transportation	✓				
Tennessee Dept. of Transportation	✓	✓			
Texas Dept. of Transportation					✓
Utah Dept. of Transportation					✓
Vermont Agency of Transportation	✓				
Virginia Dept. of Transportation	✓	✓			
Washington State DOT	✓	✓			
West Virginia Dept. of Transportation				✓	
Wisconsin Dept. of Transportation	✓	✓	✓		
TOTAL	26	16	13	4	4

Have Policy; Question 8: Does your agency have evidence of impact for its recruitment practices?			
Options	Yes, anecdotal	5	
	Yes, supported by data	17	
	No	6	
State DOT	Yes, anecdotal	Yes, supported by data	No
Alaska Dept. of Transportation (DOTPF/ASD)		✓	
California Dept. of Transportation			
Colorado Dept. of Transportation		✓	
Connecticut Dept. of Transportation	✓		
Delaware Dept. of Transportation			
District department of transportation		✓	
Georgia Dept. of Transportation	✓		
Hawaii Dept. of Transportation			
Illinois Dept. of Transportation			✓
Kentucky Transportation Cabinet			✓
Louisiana Dept. of Transportation and development		✓	
Maine Dept. of Transportation			✓
Maryland Dept. of Transportation State Highway Administration		✓	
Massachusetts Dept. of Transportation		✓	
Michigan Dept. of Transportation	✓		
Minnesota Dept. of Transportation		✓	
Missouri Dept. of Transportation		✓	
New Hampshire Dept. of Transportation			
New Jersey Dept. of Transportation			✓
New York State Dept. of Transportation			
North Carolina Dept. of Transportation		✓	
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation		✓	
Pennsylvania Dept. of Transportation		✓	
South Carolina Dept. of Transportation			✓
Tennessee Dept. of Transportation		✓	
Texas Dept. of Transportation	✓		
Utah Dept. of Transportation			✓
Vermont Agency of Transportation		✓	
Virginia Dept. of Transportation		✓	
Washington State DOT		✓	
West Virginia Dept. of Transportation			
Wisconsin Dept. of Transportation		✓	
TOTAL	5	17	6

Have Policy; Question 9: Does your agency have evidence of impact for its retention practices?			
Options	Yes, anecdotal	4	
	Yes, supported by data	14	
	No	8	
State DOT	Yes, anecdotal	Yes, supported by data	No
Alaska Dept. of Transportation (DOTPF/ASD)		✓	
California Dept. of Transportation			
Colorado Dept. of Transportation		✓	
Connecticut Dept. of Transportation			✓
Delaware Dept. of Transportation			
District department of transportation		✓	
Georgia Dept. of Transportation		✓	
Hawaii Dept. of Transportation			
Illinois Dept. of Transportation			✓
Kentucky Transportation Cabinet			✓
Louisiana Dept. of Transportation and development			
Maine Dept. of Transportation			✓
Maryland Dept. of Transportation State Highway Administration		✓	
Massachusetts Dept. of Transportation		✓	
Michigan Dept. of Transportation			✓
Minnesota Dept. of Transportation		✓	
Missouri Dept. of Transportation		✓	
New Hampshire Dept. of Transportation			
New Jersey Dept. of Transportation	✓		
New York State Dept. of Transportation			
North Carolina Dept. of Transportation			
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation		✓	
Pennsylvania Dept. of Transportation	✓		
South Carolina Dept. of Transportation			✓
Tennessee Dept. of Transportation		✓	
Texas Dept. of Transportation			✓
Utah Dept. of Transportation			✓
Vermont Agency of Transportation	✓		
Virginia Dept. of Transportation		✓	
Washington State DOT		✓	
West Virginia Dept. of Transportation			
Wisconsin Dept. of Transportation		✓	
TOTAL	4	14	8

Have Policy; Question 10: Does your agency have evidence of impact for its succession planning/advancement practices?			
Options	Yes, anecdotal	7	
	Yes, supported by data	7	
	No	10	
State DOT	Yes, anecdotal	Yes, supported by data	No
Alaska Dept. of Transportation (DOTPF/ASD)		✓	
California Dept. of Transportation			
Colorado Dept. of Transportation		✓	
Connecticut Dept. of Transportation	✓		
Delaware Dept. of Transportation			
District department of transportation	✓		
Georgia Dept. of Transportation			
Hawaii Dept. of Transportation			
Illinois Dept. of Transportation			✓
Kentucky Transportation Cabinet			✓
Louisiana Dept. of Transportation and development			
Maine Dept. of Transportation			✓
Maryland Dept. of Transportation State Highway Administration	✓		
Massachusetts Dept. of Transportation			✓
Michigan Dept. of Transportation			✓
Minnesota Dept. of Transportation		✓	
Missouri Dept. of Transportation			
New Hampshire Dept. of Transportation			
New Jersey Dept. of Transportation			✓
New York State Dept. of Transportation			
North Carolina Dept. of Transportation			
Ohio Dept. of Transportation			✓
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation		✓	
Pennsylvania Dept. of Transportation	✓		
South Carolina Dept. of Transportation			✓
Tennessee Dept. of Transportation	✓		
Texas Dept. of Transportation			✓
Utah Dept. of Transportation			✓
Vermont Agency of Transportation	✓		
Virginia Dept. of Transportation		✓	
Washington State DOT		✓	
West Virginia Dept. of Transportation			
Wisconsin Dept. of Transportation	✓		
TOTAL	7	7	10

Have Policy; Question 11: Does your agency have evidence of impact for its recruitment, retention, and advancement practices? - Other (please specify)			
Options	Yes, anecdotal	0	
	Yes, supported by data	1	
	No	3	
State DOT	Yes, anecdotal	Yes, supported by data	No
Alaska Dept. of Transportation (DOTPF/ASD)			
California Dept. of Transportation			
Colorado Dept. of Transportation			
Connecticut Dept. of Transportation			
Delaware Dept. of Transportation			
District department of transportation			
Georgia Dept. of Transportation			
Hawaii Dept. of Transportation			
Illinois Dept. of Transportation			✓
Kentucky Transportation Cabinet			
Louisiana Dept. of Transportation and development		✓ AAP UPDATE PLAN	
Maine Dept. of Transportation			
Maryland Dept. of Transportation State Highway Administration			
Massachusetts Dept. of Transportation			
Michigan Dept. of Transportation			✓
Minnesota Dept. of Transportation			
Missouri Dept. of Transportation			
New Hampshire Dept. of Transportation			
New Jersey Dept. of Transportation			
New York State Dept. of Transportation			
North Carolina Dept. of Transportation			
Ohio Dept. of Transportation			
Oklahoma Dept. of Transportation			
Oregon Dept. of Transportation			
Pennsylvania Dept. of Transportation			
South Carolina Dept. of Transportation			
Tennessee Dept. of Transportation			
Texas Dept. of Transportation			
Utah Dept. of Transportation			✓ This is a goal for our organization
Vermont Agency of Transportation			
Virginia Dept. of Transportation			
Washington State DOT			
West Virginia Dept. of Transportation			
Wisconsin Dept. of Transportation			
TOTAL	0	1	3

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Have Policy; Question 12: Please list specific practices that have resulted in the greatest impact for your agency. (Open response)	
State DOT	Response
Alaska Dept. of Transportation (DOTPF/ASD)	
California Dept. of Transportation	
Colorado Dept. of Transportation	
Connecticut Dept. of Transportation	
Delaware Dept. of Transportation	
District department of transportation	
Georgia Dept. of Transportation	
Hawaii Dept. of Transportation	
Illinois Dept. of Transportation	
Kentucky Transportation Cabinet	
Louisiana Dept. of Transportation and development	In coordination with human resources recruitment plan and affirmative action plan updates to target under-represented areas of the LADOTD workforce
Maine Dept. of Transportation	
Maryland Dept. of Transportation State Highway Administration	
Massachusetts Dept. of Transportation	
Michigan Dept. of Transportation	
Minnesota Dept. of Transportation	
Missouri Dept. of Transportation	
New Hampshire Dept. of Transportation	
New Jersey Dept. of Transportation	
New York State Dept. of Transportation	
North Carolina Dept. of Transportation	
Ohio Dept. of Transportation	
Oklahoma Dept. of Transportation	
Oregon Dept. of Transportation	
Pennsylvania Dept. of Transportation	
South Carolina Dept. of Transportation	
Tennessee Dept. of Transportation	
Texas Dept. of Transportation	
Utah Dept. of Transportation	Mentoring and succession planning practices
Vermont Agency of Transportation	
Virginia Dept. of Transportation	
Washington State DOT	
West Virginia Dept. of Transportation	
Wisconsin Dept. of Transportation	

Have Policy; Question 13: What metrics does your agency use to gauge progress toward gender equity goals? (check all that apply)					
Options	Gender diversity of applicant pools	24			
	Overall gender balance in organization	26			
	Gender balance by job category in organization	26			
	Gender balance by job levels (management, entry-level, etc.)	25			
	Gender balance by race/ethnicity	26			
State DOT	Gender diversity of applicant pools	Overall gender balance in organization	Gender balance by job category in organization	Gender balance by job levels (management, entry-level, etc.)	Gender balance by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓	✓	✓	✓
California Dept. of Transportation		✓	✓	✓	✓
Colorado Dept. of Transportation	✓	✓	✓	✓	✓
Connecticut Dept. of Transportation	✓	✓	✓	✓	✓
Delaware Dept. of Transportation	✓	✓	✓	✓	✓
District department of transportation	✓	✓		✓	✓
Georgia Dept. of Transportation	✓		✓	✓	
Hawaii Dept. of Transportation	✓				
Illinois Dept. of Transportation	✓		✓	✓	✓
Kentucky Transportation Cabinet					
Louisiana Dept. of Transportation and development		✓	✓	✓	
Maine Dept. of Transportation		✓			✓
Maryland Dept. of Transportation State Highway Administration	✓	✓	✓	✓	✓
Massachusetts Dept. of Transportation	✓	✓	✓	✓	✓
Michigan Dept. of Transportation	✓	✓	✓	✓	✓
Minnesota Dept. of Transportation	✓	✓	✓	✓	✓
Missouri Dept. of Transportation	✓	✓	✓	✓	✓
New Hampshire Dept. of Transportation		✓	✓		✓
New Jersey Dept. of Transportation	✓	✓	✓	✓	✓
New York State Dept. of Transportation					
North Carolina Dept. of Transportation		✓	✓	✓	✓
Ohio Dept. of Transportation	✓	✓	✓		✓
Oklahoma Dept. of Transportation		✓	✓	✓	✓
Oregon Dept. of Transportation	✓	✓	✓	✓	✓
Pennsylvania Dept. of Transportation	✓	✓	✓	✓	✓
South Carolina Dept. of Transportation	✓	✓	✓	✓	✓
Tennessee Dept. of Transportation	✓	✓	✓	✓	✓
Texas Dept. of Transportation	✓				
Utah Dept. of Transportation	✓	✓	✓	✓	✓
Vermont Agency of Transportation	✓	✓	✓	✓	✓
Virginia Dept. of Transportation					
Washington State DOT	✓	✓	✓	✓	✓
West Virginia Dept. of Transportation					
Wisconsin Dept. of Transportation	✓	✓	✓	✓	✓
TOTAL	24	26	26	25	26

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Have Policy; Question 13 (Continued): What metrics does your agency use to gauge progress toward gender equity goals? (check all that apply)					
Options	Compensation levels/wage gap	10			
	Employee satisfaction	16			
	Harassment/workplace complaints	22			
	Employee turnover	18			
	Other (please specify):	2			
State DOT	Compensation levels/wage gap	Employee satisfaction	Harassment/workplace complaints	Employee turnover	Other (please specify):
Alaska Dept. of Transportation (DOTPF/ASD)			✓	✓	
California Dept. of Transportation					✓ We unfortunately do not capture applicant demo data (yet)
Colorado Dept. of Transportation	✓	✓	✓	✓	
Connecticut Dept. of Transportation			✓		
Delaware Dept. of Transportation					
District department of transportation		✓			
Georgia Dept. of Transportation			✓		
Hawaii Dept. of Transportation					
Illinois Dept. of Transportation		✓	✓		
Kentucky Transportation Cabinet					
Louisiana Dept. of Transportation and development		✓	✓		
Maine Dept. of Transportation		✓	✓	✓	
Maryland Dept. of Transportation State Highway Administration	✓		✓	✓	
Massachusetts Dept. of Transportation	✓	✓	✓	✓	
Michigan Dept. of Transportation	✓	✓	✓	✓	
Minnesota Dept. of Transportation	✓	✓	✓	✓	
Missouri Dept. of Transportation			✓	✓	
New Hampshire Dept. of Transportation			✓		
New Jersey Dept. of Transportation			✓	✓	
New York State Dept. of Transportation					
North Carolina Dept. of Transportation		✓	✓		
Ohio Dept. of Transportation				✓	
Oklahoma Dept. of Transportation				✓	
Oregon Dept. of Transportation		✓		✓	
Pennsylvania Dept. of Transportation		✓	✓	✓	
South Carolina Dept. of Transportation			✓		
Tennessee Dept. of Transportation	✓	✓	✓	✓	
Texas Dept. of Transportation	✓				
Utah Dept. of Transportation	✓	✓	✓	✓	✓ We definitely pay attention to all the metrics listed
Vermont Agency of Transportation		✓	✓	✓	
Virginia Dept. of Transportation					
Washington State DOT	✓	✓	✓	✓	
West Virginia Dept. of Transportation					
Wisconsin Dept. of Transportation	✓	✓	✓	✓	
TOTAL	10	16	22	18	2

Have Policy; Question 14: Does your agency analyze gender equity data in conjunction with other EEOC protected categories (e.g., race, sexual orientation, gender identity, age, disability)?			
Options	Yes	27	
	No	2	
	Unsure	5	
State DOT	Yes	No	Unsure
Alaska Dept. of Transportation (DOTPF/ASD)	✓		
California Dept. of Transportation	✓		
Colorado Dept. of Transportation	✓		
Connecticut Dept. of Transportation	✓		
Delaware Dept. of Transportation	✓		
District department of transportation	✓		
Georgia Dept. of Transportation	✓		
Hawaii Dept. of Transportation	✓		
Illinois Dept. of Transportation	✓		
Kentucky Transportation Cabinet			✓
Louisiana Dept. of Transportation and development	✓		
Maine Dept. of Transportation			✓
Maryland Dept. of Transportation State Highway Administration	✓		
Massachusetts Dept. of Transportation	✓		
Michigan Dept. of Transportation			✓
Minnesota Dept. of Transportation	✓		
Missouri Dept. of Transportation	✓		
New Hampshire Dept. of Transportation	✓		
New Jersey Dept. of Transportation	✓		
New York State Dept. of Transportation			✓
North Carolina Dept. of Transportation	✓		
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation	✓		
Oregon Dept. of Transportation	✓		
Pennsylvania Dept. of Transportation	✓		
South Carolina Dept. of Transportation	✓		
Tennessee Dept. of Transportation	✓		
Texas Dept. of Transportation	✓		
Utah Dept. of Transportation		✓	
Vermont Agency of Transportation	✓		
Virginia Dept. of Transportation			✓
Washington State DOT	✓		
West Virginia Dept. of Transportation		✓	
Wisconsin Dept. of Transportation	✓		
TOTAL	27	2	5

Have Policy; Question 15: Please indicate the type of data your agency uses to assess equity (check all that apply) - Availability rates for skilled workers by job category		
Options	Data disaggregated by gender	16
	Data disaggregated by race/ethnicity	16
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation		
Colorado Dept. of Transportation	✓	✓
Connecticut Dept. of Transportation	✓	✓
Delaware Dept. of Transportation		
District department of transportation		
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development	✓	
Maine Dept. of Transportation	✓	✓
Maryland Dept. of Transportation State Highway Administration		
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	✓
Minnesota Dept. of Transportation	✓	✓
Missouri Dept. of Transportation	✓	✓
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation	✓	✓
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation	✓	✓
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation	✓	✓
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation	✓	✓
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation	✓	✓
Virginia Dept. of Transportation		
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation		
TOTAL	16	16

Have Policy; Question 16: Please indicate the type of data your agency uses to assess equity (check all that apply) - Agency utilization rates by job categories		
Options	Data disaggregated by gender	22
	Data disaggregated by race/ethnicity	23
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓
California Dept. of Transportation	✓	✓
Colorado Dept. of Transportation	✓	✓
Connecticut Dept. of Transportation	✓	✓
Delaware Dept. of Transportation	✓	✓
District department of transportation	✓	✓
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development	✓	✓
Maine Dept. of Transportation	✓	✓
Maryland Dept. of Transportation State Highway Administration	✓	✓
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	✓
Minnesota Dept. of Transportation	✓	✓
Missouri Dept. of Transportation	✓	✓
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation	✓	✓
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation	✓	✓
Oklahoma Dept. of Transportation	✓	✓
Oregon Dept. of Transportation	✓	✓
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation	✓	✓
Tennessee Dept. of Transportation		
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation	✓	✓
Virginia Dept. of Transportation		
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation	✓	✓
TOTAL	22	23

Have Policy; Question 17: Please indicate the type of data your agency uses to assess equity (check all that apply) - National labor participation rate benchmarks (by occupation)		
Options	Data disaggregated by gender	6
	Data disaggregated by race/ethnicity	7
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓
California Dept. of Transportation		
Colorado Dept. of Transportation		
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation		
District department of transportation		
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation	✓	✓
Maryland Dept. of Transportation State Highway Administration		
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation		
Minnesota Dept. of Transportation		
Missouri Dept. of Transportation	✓	✓
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation		
Tennessee Dept. of Transportation		
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation	✓	✓
Virginia Dept. of Transportation		
Washington State DOT		
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation		
TOTAL	6	7

Have Policy; Question 18: Please indicate the type of data your agency uses to assess equity (check all that apply) - State labor participation rate benchmarks (by occupation)		
Options	Data disaggregated by gender	13
	Data disaggregated by race/ethnicity	13
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓
California Dept. of Transportation	✓	✓
Colorado Dept. of Transportation		
Connecticut Dept. of Transportation	✓	✓
Delaware Dept. of Transportation		
District department of transportation		
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development	✓	✓
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration	✓	✓
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation		
Minnesota Dept. of Transportation	✓	
Missouri Dept. of Transportation	✓	✓
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation	✓	✓
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation	✓	✓
Virginia Dept. of Transportation		
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation		
TOTAL	13	13

Have Policy; Question 19: Please indicate the type of data your agency uses to assess equity (check all that apply) - Employee satisfaction surveys		
Options	Data disaggregated by gender	16
	Data disaggregated by race/ethnicity	14
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation	✓	✓
Colorado Dept. of Transportation	✓	
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation		
District department of transportation	✓	✓
Georgia Dept. of Transportation		
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation	✓	✓
Maryland Dept. of Transportation State Highway Administration		
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	✓
Minnesota Dept. of Transportation	✓	
Missouri Dept. of Transportation	✓	✓
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation	✓	✓
Pennsylvania Dept. of Transportation	✓	✓
South Carolina Dept. of Transportation		
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation		
Utah Dept. of Transportation	✓	
Vermont Agency of Transportation	✓	✓
Virginia Dept. of Transportation		✓
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation	✓	✓
TOTAL	16	14

Have Policy; Question 20: Please indicate the type of data your agency uses to assess equity (check all that apply) - Employee exit surveys		
Options	Data disaggregated by gender	15
	Data disaggregated by race/ethnicity	11
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)	✓	✓
California Dept. of Transportation		
Colorado Dept. of Transportation	✓	
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation		
District department of transportation		
Georgia Dept. of Transportation		
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation	✓	
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration	✓	✓
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	
Minnesota Dept. of Transportation	✓	
Missouri Dept. of Transportation		
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation		
Ohio Dept. of Transportation	✓	✓
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation	✓	✓
Pennsylvania Dept. of Transportation	✓	✓
South Carolina Dept. of Transportation	✓	✓
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation		
Utah Dept. of Transportation	✓	
Vermont Agency of Transportation		
Virginia Dept. of Transportation		✓
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation	✓	✓
TOTAL	15	11

Have Policy; Question 21: Please indicate the type of data your agency uses to assess equity (check all that apply) - Employee compensation by job		
Options	Data disaggregated by gender	9
	Data disaggregated by race/ethnicity	9
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation		
Colorado Dept. of Transportation	✓	
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation		
District department of transportation		
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration	✓	✓
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	✓
Minnesota Dept. of Transportation		
Missouri Dept. of Transportation	✓	✓
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation		
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation		
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation	✓	✓
Utah Dept. of Transportation	✓	
Vermont Agency of Transportation		
Virginia Dept. of Transportation		✓
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation		
TOTAL	9	9

Have Policy; Question 22: Please indicate the type of data your agency uses to assess equity (check all that apply) - Workplace complaints		
Options	Data disaggregated by gender	13
	Data disaggregated by race/ethnicity	14
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation		
Colorado Dept. of Transportation	✓	✓
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation	✓	✓
District department of transportation	✓	✓
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation	✓	
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration	✓	✓
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	✓
Minnesota Dept. of Transportation		
Missouri Dept. of Transportation		
New Hampshire Dept. of Transportation	✓	✓
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation	✓	✓
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation		
Virginia Dept. of Transportation		✓
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation	✓	✓
TOTAL	13	14

Have Policy; Question 23: Please indicate the type of data your agency uses to assess equity (check all that apply) - Workplace harassment complaints		
Options	Data disaggregated by gender	15
	Data disaggregated by race/ethnicity	16
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation		
Colorado Dept. of Transportation	✓	✓
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation	✓	✓
District department of transportation	✓	✓
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation	✓	
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration	✓	✓
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	✓
Minnesota Dept. of Transportation		
Missouri Dept. of Transportation		
New Hampshire Dept. of Transportation	✓	✓
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation	✓	✓
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation	✓	✓
South Carolina Dept. of Transportation	✓	✓
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation		
Virginia Dept. of Transportation		✓
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation	✓	✓
TOTAL	15	16

Have Policy; Question 24: Please indicate the type of data your agency uses to assess equity (check all that apply) - Harassment investigation results		
Options	Data disaggregated by gender	15
	Data disaggregated by race/ethnicity	16
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation		
Colorado Dept. of Transportation	✓	✓
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation	✓	✓
District department of transportation	✓	✓
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation	✓	
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration	✓	✓
Massachusetts Dept. of Transportation	✓	✓
Michigan Dept. of Transportation	✓	✓
Minnesota Dept. of Transportation		
Missouri Dept. of Transportation		
New Hampshire Dept. of Transportation	✓	✓
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation	✓	✓
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation	✓	✓
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation	✓	✓
South Carolina Dept. of Transportation	✓	✓
Tennessee Dept. of Transportation	✓	✓
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation		
Virginia Dept. of Transportation		✓
Washington State DOT	✓	✓
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation	✓	✓
TOTAL	15	16

Have Policy; Question 25: Please indicate the type of data your agency uses to assess equity (check all that apply) - None of the above		
Options	Data disaggregated by gender	3
	Data disaggregated by race/ethnicity	3
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation		
Colorado Dept. of Transportation		
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation		
District department of transportation		
Georgia Dept. of Transportation		
Hawaii Dept. of Transportation	✓	✓
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration		
Massachusetts Dept. of Transportation		
Michigan Dept. of Transportation		
Minnesota Dept. of Transportation		
Missouri Dept. of Transportation		
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation		
New York State Dept. of Transportation	✓	✓
North Carolina Dept. of Transportation		
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation		
Tennessee Dept. of Transportation		
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation		
Virginia Dept. of Transportation		
Washington State DOT		
West Virginia Dept. of Transportation	✓	✓
Wisconsin Dept. of Transportation		
TOTAL	3	3

Have Policy; Question 26: Please indicate the type of data your agency uses to assess equity (check all that apply) - Other (Please specify)		
Options	Data disaggregated by gender	0
	Data disaggregated by race/ethnicity	0
State DOT	Data disaggregated by gender	Data disaggregated by race/ethnicity
Alaska Dept. of Transportation (DOTPF/ASD)		
California Dept. of Transportation		
Colorado Dept. of Transportation		
Connecticut Dept. of Transportation		
Delaware Dept. of Transportation		
District department of transportation		
Georgia Dept. of Transportation		
Hawaii Dept. of Transportation		
Illinois Dept. of Transportation		
Kentucky Transportation Cabinet		
Louisiana Dept. of Transportation and development		
Maine Dept. of Transportation		
Maryland Dept. of Transportation State Highway Administration		
Massachusetts Dept. of Transportation		
Michigan Dept. of Transportation		
Minnesota Dept. of Transportation		
Missouri Dept. of Transportation		
New Hampshire Dept. of Transportation		
New Jersey Dept. of Transportation		
New York State Dept. of Transportation		
North Carolina Dept. of Transportation		
Ohio Dept. of Transportation		
Oklahoma Dept. of Transportation		
Oregon Dept. of Transportation		
Pennsylvania Dept. of Transportation		
South Carolina Dept. of Transportation		
Tennessee Dept. of Transportation		
Texas Dept. of Transportation		
Utah Dept. of Transportation		
Vermont Agency of Transportation		
Virginia Dept. of Transportation		
Washington State DOT		
West Virginia Dept. of Transportation		
Wisconsin Dept. of Transportation		
TOTAL	0	0

Have Policy; Question 27: Does your agency share findings related to these data collection and assessment activities?			
Options	No	6	
	Yes, shared internally	18	
	Yes, shared publicly	10	
State DOT	No	Yes, shared internally	Yes, shared publicly
Alaska Dept. of Transportation (DOTPF/ASD)		✓	
California Dept. of Transportation		✓	
Colorado Dept. of Transportation		✓	
Connecticut Dept. of Transportation		✓	
Delaware Dept. of Transportation			✓
District department of transportation		✓	
Georgia Dept. of Transportation		✓	
Hawaii Dept. of Transportation	✓		
Illinois Dept. of Transportation			✓
Kentucky Transportation Cabinet	✓		
Louisiana Dept. of Transportation and development			✓
Maine Dept. of Transportation		✓	
Maryland Dept. of Transportation State Highway Administration		✓	
Massachusetts Dept. of Transportation			✓
Michigan Dept. of Transportation			✓
Minnesota Dept. of Transportation		✓	
Missouri Dept. of Transportation			✓
New Hampshire Dept. of Transportation		✓	
New Jersey Dept. of Transportation			✓
New York State Dept. of Transportation	✓		
North Carolina Dept. of Transportation		✓	
Ohio Dept. of Transportation			✓
Oklahoma Dept. of Transportation			✓
Oregon Dept. of Transportation		✓	
Pennsylvania Dept. of Transportation	✓		
South Carolina Dept. of Transportation			✓
Tennessee Dept. of Transportation		✓	
Texas Dept. of Transportation	✓		
Utah Dept. of Transportation		✓	
Vermont Agency of Transportation		✓	
Virginia Dept. of Transportation		✓	
Washington State DOT		✓	
West Virginia Dept. of Transportation	✓		
Wisconsin Dept. of Transportation		✓	
TOTAL	6	18	10

Have Policy; Question 28: Does your agency emphasize diversity and inclusion in its organizational mission, vision, and/or value statements?		
Options	Yes	28
	No	6
State DOT	Yes	No
Alaska Dept. of Transportation (DOTPF/ASD)	✓	
California Dept. of Transportation	✓	
Colorado Dept. of Transportation	✓	
Connecticut Dept. of Transportation		✓
Delaware Dept. of Transportation	✓	
District department of transportation	✓	
Georgia Dept. of Transportation	✓	
Hawaii Dept. of Transportation	✓	
Illinois Dept. of Transportation	✓	
Kentucky Transportation Cabinet	✓	
Louisiana Dept. of Transportation and development	✓	
Maine Dept. of Transportation		✓
Maryland Dept. of Transportation State Highway Administration	✓	
Massachusetts Dept. of Transportation	✓	
Michigan Dept. of Transportation	✓	
Minnesota Dept. of Transportation	✓	
Missouri Dept. of Transportation	✓	
New Hampshire Dept. of Transportation	✓	
New Jersey Dept. of Transportation		✓
New York State Dept. of Transportation	✓	
North Carolina Dept. of Transportation	✓	
Ohio Dept. of Transportation	✓	
Oklahoma Dept. of Transportation		✓
Oregon Dept. of Transportation	✓	
Pennsylvania Dept. of Transportation	✓	
South Carolina Dept. of Transportation		✓
Tennessee Dept. of Transportation		✓
Texas Dept. of Transportation	✓	
Utah Dept. of Transportation	✓	
Vermont Agency of Transportation	✓	
Virginia Dept. of Transportation	✓	
Washington State DOT	✓	
West Virginia Dept. of Transportation	✓	
Wisconsin Dept. of Transportation	✓	
TOTAL	28	6

Have Policy; Question 29: Is an emphasis on gender diversity, equity, and inclusion included in your organization's strategic plan?			
Options	Yes	25	
	No	6	
	Did not answer	3	
State DOT	Yes	No	Did not answer
Alaska Dept. of Transportation (DOTPF/ASD)	✓		
California Dept. of Transportation	✓		
Colorado Dept. of Transportation	✓		
Connecticut Dept. of Transportation			✓
Delaware Dept. of Transportation	✓		
District department of transportation	✓		
Georgia Dept. of Transportation		✓	
Hawaii Dept. of Transportation	✓		
Illinois Dept. of Transportation	✓		
Kentucky Transportation Cabinet	✓		
Louisiana Dept. of Transportation and development	✓		
Maine Dept. of Transportation			✓
Maryland Dept. of Transportation State Highway Administration	✓		
Massachusetts Dept. of Transportation			✓
Michigan Dept. of Transportation	✓		
Minnesota Dept. of Transportation	✓		
Missouri Dept. of Transportation	✓		
New Hampshire Dept. of Transportation	✓		
New Jersey Dept. of Transportation		✓	
New York State Dept. of Transportation	✓		
North Carolina Dept. of Transportation	✓		
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation	✓		
Pennsylvania Dept. of Transportation	✓		
South Carolina Dept. of Transportation		✓	
Tennessee Dept. of Transportation	✓		
Texas Dept. of Transportation	✓		
Utah Dept. of Transportation		✓	
Vermont Agency of Transportation	✓		
Virginia Dept. of Transportation	✓		
Washington State DOT	✓		
West Virginia Dept. of Transportation		✓	
Wisconsin Dept. of Transportation	✓		
TOTAL	25	6	3

Have Policy; Question 30: Are regular communications shared by leadership agency-wide regarding the importance of DEI and progress within the agency?		
Options	Yes	23
	No	11
State DOT	Yes	No
Alaska Dept. of Transportation (DOTPF/ASD)		✓
California Dept. of Transportation	✓	
Colorado Dept. of Transportation	✓	
Connecticut Dept. of Transportation	✓	
Delaware Dept. of Transportation	✓	
District department of transportation	✓	
Georgia Dept. of Transportation		✓
Hawaii Dept. of Transportation		✓
Illinois Dept. of Transportation	✓	
Kentucky Transportation Cabinet		✓
Louisiana Dept. of Transportation and development	✓	
Maine Dept. of Transportation	✓	
Maryland Dept. of Transportation State Highway Administration	✓	
Massachusetts Dept. of Transportation	✓	
Michigan Dept. of Transportation	✓	
Minnesota Dept. of Transportation	✓	
Missouri Dept. of Transportation	✓	
New Hampshire Dept. of Transportation		✓
New Jersey Dept. of Transportation	✓	
New York State Dept. of Transportation		✓
North Carolina Dept. of Transportation	✓	
Ohio Dept. of Transportation	✓	
Oklahoma Dept. of Transportation		✓
Oregon Dept. of Transportation	✓	
Pennsylvania Dept. of Transportation		✓
South Carolina Dept. of Transportation		✓
Tennessee Dept. of Transportation	✓	
Texas Dept. of Transportation	✓	
Utah Dept. of Transportation	✓	
Vermont Agency of Transportation		✓
Virginia Dept. of Transportation	✓	
Washington State DOT	✓	
West Virginia Dept. of Transportation		✓
Wisconsin Dept. of Transportation	✓	
TOTAL	23	11

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Have Policy; Question 31: Is a formal training program related to diversity, equity, and inclusion (DEI) offered to staff in leadership positions?			
Options	Yes, on voluntary basis	12	
	Yes, as a required/mandatory training	18	
	No	4	
State DOT	Yes, on voluntary basis	Yes, as a required/mandatory training	No
Alaska Dept. of Transportation (DOTPF/ASD)		✓	
California Dept. of Transportation		✓	
Colorado Dept. of Transportation		✓	
Connecticut Dept. of Transportation		✓	
Delaware Dept. of Transportation	✓		
District department of transportation		✓	
Georgia Dept. of Transportation		✓	
Hawaii Dept. of Transportation		✓	
Illinois Dept. of Transportation		✓	
Kentucky Transportation Cabinet		✓	
Louisiana Dept. of Transportation and development		✓	
Maine Dept. of Transportation		✓	
Maryland Dept. of Transportation State Highway Administration		✓	
Massachusetts Dept. of Transportation		✓	
Michigan Dept. of Transportation			✓
Minnesota Dept. of Transportation	✓		
Missouri Dept. of Transportation		✓	
New Hampshire Dept. of Transportation		✓	
New Jersey Dept. of Transportation	✓		
New York State Dept. of Transportation	✓		
North Carolina Dept. of Transportation		✓	
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation	✓		
Oregon Dept. of Transportation	✓		
Pennsylvania Dept. of Transportation			✓
South Carolina Dept. of Transportation	✓		
Tennessee Dept. of Transportation			✓
Texas Dept. of Transportation	✓		
Utah Dept. of Transportation	✓		
Vermont Agency of Transportation	✓		
Virginia Dept. of Transportation	✓		
Washington State DOT		✓	
West Virginia Dept. of Transportation			✓
Wisconsin Dept. of Transportation		✓	
TOTAL	12	18	4

Have Policy; Question 32: Is there an accountability process for ensuring managers implement diversity policies and support an inclusive and equitable workplace environment?			
Options	Yes	19	
	No	12	
	Unsure	3	
State DOT	Yes	No	Unsure
Alaska Dept. of Transportation (DOTPF/ASD)	✓		
California Dept. of Transportation		✓	
Colorado Dept. of Transportation	✓		
Connecticut Dept. of Transportation	✓		
Delaware Dept. of Transportation	✓		
District department of transportation		✓	
Georgia Dept. of Transportation	✓		
Hawaii Dept. of Transportation			✓
Illinois Dept. of Transportation	✓		
Kentucky Transportation Cabinet	✓		
Louisiana Dept. of Transportation and development	✓		
Maine Dept. of Transportation	✓		
Maryland Dept. of Transportation State Highway Administration			✓
Massachusetts Dept. of Transportation	✓		
Michigan Dept. of Transportation		✓	
Minnesota Dept. of Transportation		✓	
Missouri Dept. of Transportation	✓		
New Hampshire Dept. of Transportation		✓	
New Jersey Dept. of Transportation			✓
New York State Dept. of Transportation		✓	
North Carolina Dept. of Transportation	✓		
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation	✓		
Pennsylvania Dept. of Transportation		✓	
South Carolina Dept. of Transportation		✓	
Tennessee Dept. of Transportation		✓	
Texas Dept. of Transportation		✓	
Utah Dept. of Transportation		✓	
Vermont Agency of Transportation	✓		
Virginia Dept. of Transportation	✓		
Washington State DOT	✓		
West Virginia Dept. of Transportation	✓		
Wisconsin Dept. of Transportation	✓		
TOTAL	19	12	3

Have Policy; Question 33: Does your agency have systems in place to review resource content or processes for gender bias (e.g., meeting materials, delegation of work assignments, health and safety guidelines, hiring criteria, etc.)?			
Options	Yes	11	
	No	22	
	Did not answer	1	
State DOT	Yes	No	Did not answer
Alaska Dept. of Transportation (DOTPF/ASD)	✓		
California Dept. of Transportation		✓	
Colorado Dept. of Transportation	✓		
Connecticut Dept. of Transportation		✓	
Delaware Dept. of Transportation	✓		
District department of transportation	✓		
Georgia Dept. of Transportation	✓		
Hawaii Dept. of Transportation		✓	
Illinois Dept. of Transportation		✓	
Kentucky Transportation Cabinet		✓	
Louisiana Dept. of Transportation and development		✓	
Maine Dept. of Transportation	✓		
Maryland Dept. of Transportation State Highway Administration		✓	
Massachusetts Dept. of Transportation	✓		
Michigan Dept. of Transportation		✓	
Minnesota Dept. of Transportation	✓		
Missouri Dept. of Transportation	✓		
New Hampshire Dept. of Transportation		✓	
New Jersey Dept. of Transportation		✓	
New York State Dept. of Transportation		✓	
North Carolina Dept. of Transportation		✓	
Ohio Dept. of Transportation		✓	
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation	✓		
Pennsylvania Dept. of Transportation		✓	
South Carolina Dept. of Transportation		✓	
Tennessee Dept. of Transportation		✓	
Texas Dept. of Transportation		✓	
Utah Dept. of Transportation		✓	
Vermont Agency of Transportation		✓	
Virginia Dept. of Transportation	✓		
Washington State DOT		✓	
West Virginia Dept. of Transportation		✓	
Wisconsin Dept. of Transportation			✓
TOTAL	11	22	1

Have Policy; Question 34: Has your agency assessed employees' perspectives on progress toward diversity goals and inclusive workplace culture?			
Options	Yes	17	
	No	16	
	Did not answer	1	
State DOT	Yes	No	Did not answer
Alaska Dept. of Transportation (DOTPF/ASD)		✓	
California Dept. of Transportation	✓		
Colorado Dept. of Transportation	✓		
Connecticut Dept. of Transportation		✓	
Delaware Dept. of Transportation	✓		
District department of transportation		✓	
Georgia Dept. of Transportation		✓	
Hawaii Dept. of Transportation		✓	
Illinois Dept. of Transportation		✓	
Kentucky Transportation Cabinet		✓	
Louisiana Dept. of Transportation and development	✓		
Maine Dept. of Transportation	✓		
Maryland Dept. of Transportation State Highway Administration	✓		
Massachusetts Dept. of Transportation	✓		
Michigan Dept. of Transportation		✓	
Minnesota Dept. of Transportation	✓		
Missouri Dept. of Transportation			✓
New Hampshire Dept. of Transportation		✓	
New Jersey Dept. of Transportation	✓		
New York State Dept. of Transportation		✓	
North Carolina Dept. of Transportation		✓	
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation	✓		
Pennsylvania Dept. of Transportation		✓	
South Carolina Dept. of Transportation		✓	
Tennessee Dept. of Transportation	✓		
Texas Dept. of Transportation		✓	
Utah Dept. of Transportation	✓		
Vermont Agency of Transportation	✓		
Virginia Dept. of Transportation	✓		
Washington State DOT	✓		
West Virginia Dept. of Transportation		✓	
Wisconsin Dept. of Transportation	✓		
TOTAL	17	16	1

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Have Policy; Question 35: Has your agency attempted to learn about the needs/experiences of employees from different protected EEOC groups based on race, sex, gender identity, sexual orientation, age, disability, etc. by doing any of the following? (check all that apply)						
Options	Conducting focus groups with underrepresented/protected EEOC groups	11				
	Interviewing applicable affinity groups	6				
	Meeting with hiring officials	15				
	Reviewing exit interview results	21				
	None	7				
	Other	5				
State DOT	Conducting focus groups with underrepresented/protected EEOC groups	Interviewing applicable affinity groups	Meeting with hiring officials	Reviewing exit interview results	None	Other
Alaska Dept. of Transportation (DOTPF/ASD)			✓	✓		
California Dept. of Transportation						✓
Colorado Dept. of Transportation		✓	✓	✓		
Connecticut Dept. of Transportation	✓			✓		
Delaware Dept. of Transportation			✓	✓		
District department of transportation	✓	✓				
Georgia Dept. of Transportation			✓	✓		
Hawaii Dept. of Transportation					✓	
Illinois Dept. of Transportation				✓		
Kentucky Transportation Cabinet					✓	
Louisiana Dept. of Transportation and development					✓	
Maine Dept. of Transportation			✓			
Maryland Dept. of Transportation State Highway Administration			✓	✓		
Massachusetts Dept. of Transportation	✓	✓	✓	✓		
Michigan Dept. of Transportation					✓	
Minnesota Dept. of Transportation	✓	✓	✓	✓		✓
Missouri Dept. of Transportation					✓	
New Hampshire Dept. of Transportation					✓	
New Jersey Dept. of Transportation	✓			✓		
New York State Dept. of Transportation					✓	
North Carolina Dept. of Transportation	✓		✓	✓		
Ohio Dept. of Transportation				✓		
Oklahoma Dept. of Transportation				✓		
Oregon Dept. of Transportation	✓	✓		✓		
Pennsylvania Dept. of Transportation	✓			✓		
South Carolina Dept. of Transportation			✓	✓		
Tennessee Dept. of Transportation	✓		✓	✓		
Texas Dept. of Transportation						✓
Utah Dept. of Transportation						✓
Vermont Agency of Transportation			✓			✓
Virginia Dept. of Transportation	✓		✓	✓		
Washington State DOT	✓	✓	✓	✓		
West Virginia Dept. of Transportation			✓	✓		
Wisconsin Dept. of Transportation				✓		
TOTAL	11	6	15	21	7	5

Have Policy; Question 36: Does your agency acknowledge employees' gender identities beyond binary (male/female) options?				
Options	Yes	19		
	No	5		
	Unsure	8		
	Did not answer	2		
State DOT	Yes	No	Unsure	Did not answer
Alaska Dept. of Transportation (DOTPF/ASD)	✓			
California Dept. of Transportation	✓			
Colorado Dept. of Transportation			✓	
Connecticut Dept. of Transportation		✓		
Delaware Dept. of Transportation	✓			
District department of transportation	✓			
Georgia Dept. of Transportation			✓	
Hawaii Dept. of Transportation	✓			
Illinois Dept. of Transportation	✓			
Kentucky Transportation Cabinet			✓	
Louisiana Dept. of Transportation and development			✓	
Maine Dept. of Transportation	✓			
Maryland Dept. of Transportation State Highway Administration	✓			
Massachusetts Dept. of Transportation	✓			
Michigan Dept. of Transportation		✓		
Minnesota Dept. of Transportation	✓			
Missouri Dept. of Transportation	✓			
New Hampshire Dept. of Transportation	✓			
New Jersey Dept. of Transportation				✓
New York State Dept. of Transportation	✓			
North Carolina Dept. of Transportation	✓			
Ohio Dept. of Transportation		✓		
Oklahoma Dept. of Transportation			✓	
Oregon Dept. of Transportation	✓			
Pennsylvania Dept. of Transportation			✓	
South Carolina Dept. of Transportation	✓			
Tennessee Dept. of Transportation		✓		
Texas Dept. of Transportation		✓		
Utah Dept. of Transportation			✓	
Vermont Agency of Transportation	✓			
Virginia Dept. of Transportation			✓	
Washington State DOT	✓			
West Virginia Dept. of Transportation	✓			
Wisconsin Dept. of Transportation				✓
TOTAL	19	5	8	2

Have Policy; Question 37: Does your agency have policies, resources, or programs in place to ensure a welcoming environment and to support employees with diverse gender identities, such as respecting pronouns and honoring preferred name?			
Options	Yes	20	
	No	13	
	Did not answer	1	
State DOT	Yes	No	Did not answer
Alaska Dept. of Transportation (DOTPF/ASD)	✓		
California Dept. of Transportation	✓		
Colorado Dept. of Transportation	✓		
Connecticut Dept. of Transportation		✓	
Delaware Dept. of Transportation	✓		
District department of transportation	✓		
Georgia Dept. of Transportation		✓	
Hawaii Dept. of Transportation	✓		
Illinois Dept. of Transportation	✓		
Kentucky Transportation Cabinet	✓		
Louisiana Dept. of Transportation and development	✓		
Maine Dept. of Transportation	✓		
Maryland Dept. of Transportation State Highway Administration	✓		
Massachusetts Dept. of Transportation	✓		
Michigan Dept. of Transportation		✓	
Minnesota Dept. of Transportation	✓		
Missouri Dept. of Transportation	✓		
New Hampshire Dept. of Transportation	✓		
New Jersey Dept. of Transportation		✓	
New York State Dept. of Transportation		✓	
North Carolina Dept. of Transportation			✓
Ohio Dept. of Transportation	✓		
Oklahoma Dept. of Transportation		✓	
Oregon Dept. of Transportation	✓		
Pennsylvania Dept. of Transportation		✓	
South Carolina Dept. of Transportation		✓	
Tennessee Dept. of Transportation		✓	
Texas Dept. of Transportation		✓	
Utah Dept. of Transportation		✓	
Vermont Agency of Transportation		✓	
Virginia Dept. of Transportation	✓		
Washington State DOT	✓		
West Virginia Dept. of Transportation	✓		
Wisconsin Dept. of Transportation		✓	
TOTAL	20	13	1

Have Policy, Question 38: Are you willing to participate in a brief follow-up interview about this topic?		
Options	Yes	28
	No	6
State DOT	Yes	No
Alaska Dept. of Transportation (DOTPF/ASD)	✓	
California Dept. of Transportation	✓	
Colorado Dept. of Transportation		✓
Connecticut Dept. of Transportation	✓	
Delaware Dept. of Transportation	✓	
District department of transportation	✓	
Georgia Dept. of Transportation	✓	
Hawaii Dept. of Transportation		✓
Illinois Dept. of Transportation	✓	
Kentucky Transportation Cabinet	✓	
Louisiana Dept. of Transportation and development	✓	
Maine Dept. of Transportation		✓
Maryland Dept. of Transportation State Highway Administration	✓	
Massachusetts Dept. of Transportation	✓	
Michigan Dept. of Transportation	✓	
Minnesota Dept. of Transportation	✓	
Missouri Dept. of Transportation	✓	
New Hampshire Dept. of Transportation	✓	
New Jersey Dept. of Transportation	✓	
New York State Dept. of Transportation	✓	
North Carolina Dept. of Transportation	✓	
Ohio Dept. of Transportation	✓	
Oklahoma Dept. of Transportation		✓
Oregon Dept. of Transportation	✓	
Pennsylvania Dept. of Transportation	✓	
South Carolina Dept. of Transportation	✓	
Tennessee Dept. of Transportation	✓	
Texas Dept. of Transportation	✓	
Utah Dept. of Transportation	✓	
Vermont Agency of Transportation	✓	
Virginia Dept. of Transportation		✓
Washington State DOT	✓	
West Virginia Dept. of Transportation		✓
Wisconsin Dept. of Transportation	✓	
TOTAL	28	6

Abbreviations and acronyms used without definitions in TRB publications:

A4A	Airlines for America
AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI-NA	Airports Council International-North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAST	Fixing America's Surface Transportation Act (2015)
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GHSA	Governors Highway Safety Association
HMCRP	Hazardous Materials Cooperative Research Program
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
MAP-21	Moving Ahead for Progress in the 21st Century Act (2012)
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
PHMSA	Pipeline and Hazardous Materials Safety Administration
RITA	Research and Innovative Technology Administration
SAE	Society of Automotive Engineers
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S. DOT	United States Department of Transportation

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