

Women in Transportation Playbook: Inspire, Engage and Empower









Contents Page

Introduction	2
SETWC Women's Transportation Initiative	3
Partnering Organizations	
About this Playbook	
How to use this Playbook	
About SETWC/the National Network for the Transportation Workforce	5
Play 1: Develop a Pipeline Strategy	6
Play 2: It Takes a Team	7
Play 3: Tackle Common Barriers	
Spotlight on Transportation Careers	9
Play 4: Address Special Challenges for Underserved Populations	10
Women's Foundation for a Greater Memphis: Vision 2020	11
Southwest Tennessee Community College – Women's Transportation Pilot	12
Play 5: Connect the Dots	13
Play 6: Provide Support for Retention and Advancement	14
Lessons Learned	15
Resources	16
Playbook Checklist	17

Introduction

The United States faces transportation workforce challenges with limited numbers of people choosing transportation-related careers and significant underrepresentation of key populations, including women.

These issues are exacerbated by the fact that a significant fraction of the current workforce is eligible for retirement. As women make up nearly half of workers in the United States, it is imperative that we attract and leverage this talent.

Beyond simply the numbers, women must be represented to achieve the greatest outcomes for the industry as a whole. When women are well-represented (at all levels), organizations achieve greater productivity, innovation, and overall performance. This further underscores the importance of addressing diversity challenges in transportation.

Women are extremely underrepresented in numerous areas in transportation – including technical roles, construction, and engineering. These non-traditional roles for women offer reduced gender wage gaps and numerous points of entry that lead to high-wage jobs, from roles only requiring certifications or technical training to those in STEM disciplines requiring four-year degrees and beyond. However, there are barriers to increasing numbers of women in transportation, including awareness, occupational environment, and other factors.

The transportation workforce of the future must be robust, diverse, and well-prepared to address complex challenges and innovations. Gender parity plays an important role in achieving this vision and requires a variety of interventions and supports. This playbook highlights lessons learned over a 5-year effort (2014-2019) and numerous examples of organizations leading the way to achieving this goal.

Leading the Way: Women of Asphalt

Trade and professional organizations play an important role in increasing women's representation in transportation. These organizations can work to address stereotypes, increase awareness of occupations, and provide support for women entering and advancing in a particular discipline. One excellent example is that of Women of Asphalt (WofA). Founded in 2017, this coalition formed to develop a platform to help recruit, educate,



and promote women in the asphalt community. WofA provides support to women in all areas of the asphalt industry through mentoring and networking, professional development, and advocacy. Key initiatives include a podcast series, 'Where We Belong' and a formal mentoring program that matches members with mentors in a variety of industry roles, including administrative, engineering, environmental/regulatory, project management, marketing & sales, and operations. State chapters provide added value, including efforts such as providing financial support to women entering the industry for purchasing necessary work equipment.



SETWC Women's Transportation Initiative

As part of its work program, the Southeast Transportation Workforce Center (SETWC) embarked on a research and partnership development effort in 2015 to address the underrepresentation of women in the transportation workforce. The resulting initiative was multipronged and examined issues for women from K-12 through career. SETWC's methodology included comprehensive literature review, stakeholder surveys, interviews, focus groups, and leadership of numerous regional workshops and think tanks.

The initiative has led to SETWC and its collaborators developing:

- Robust, multidisciplinary industry-academia-community partnerships
- Diversity-focused conference sessions and workshops
- Transportation-focused outreach programs for women and girls
- Multiple journal publications and book chapters focused on women in transportation

This playbook is the culmination of this work, and is intended to identify and connect challenges to women's inclusion in the industry to strategies and best practices to alleviate them.



Partnering Organizations



CN

Southeast Transportation Workforce Center (SETWC) Southwest TN Community College – Southwest Workforce and Community Solutions

US Department of Labor – Office of Apprenticeship (Memphis)

US Department of Transportation Office of Small and Disadvantaged Business Utilization -Southeast Region

Tennessee Department of Transportation American Public Transit Association - Workforce Development & Educational Services Women's Foundation for a Greater Memphis Vaco Logistics

Industry Partners

City of Memphis Dunavant Global Logistics Group, LLC FedEx Express FedEx Freight FHWA Arkansas Gannett Fleming, Inc. IMC Companies, Inc. Mallory Alexander International Logistics Memphis Area Transit Authority South Carolina Asphalt Pavement Association Virginia Department of Transportation Women In Trucking

About this Playbook

This Playbook is designed to identify challenges, opportunities, and best practices for attracting and retaining women in transportation careers. The Playbook focuses on women across the entire pipeline – from K-12 to the existing workforce. The goal is to provide a structure for addressing women's issues in the transportation workforce and a set of best practice examples that can be replicated and built upon in other communities. The Playbook includes:

- Identification of common barriers across the pipeline,
- Strategies for addressing pipeline challenges,
- Approaches to address special challenges for underserved populations,
- Lessons learned from the experience of SETWC and its partners, and
- Resources for moving the needle on women's issues in transportation.

How to use this Playbook

California State University, Long Beach

thomas.obrien@csulb.edu

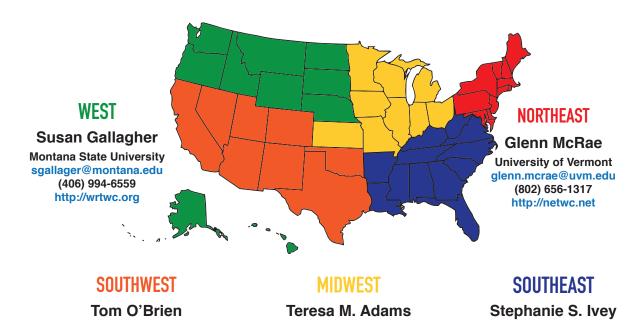
(562) 985-2875

http://swtwc.org

The SETWC Women's Transportation Initiative Playbook was developed based upon research, experience, and lessons learned over a 5-year collaborative effort, and showcases best practice examples from a variety of organizations. It provides a roadmap for other communities to consider in addressing their own workforce challenges.

About SETWC/the National Network for the Transportation Workforce

SETWC is one of five regional centers of excellence that together comprise the National Network for the Transportation Workforce (NNTW). SETWC has a broad transportation workforce agenda, but also provides specific expertise related to diversity in transportation, transportation operations, and freight transportation workforce development. The NNTW is dedicated to advancing research and best practice to move the needle related to transportation workforce issues. The Federal Highway Administration (FHWA) founded the NNTW and each of the regional centers via a competitive grant process in 2014.



University of Wisconsin-Madison

teresa.adams@wisc.edu

(608) 263-3175

http://mtwc.org

The University of Memphis

ssalyers@memphis.edu

(901) 678-3286

http://memphis.edu/setwc

Play 1: Develop a Pipeline Strategy

In order to move the needle with women's representation in transportation, a comprehensive approach is needed. A pipeline approach first requires knowledge of industry needs: occupations currently in demand, skillsets required (and shifts expected to occur over time), and job growth projections. Starting from this basis of industry needs ensures that strategies put in place will be of value to a broad group of stakeholders and will be sustainable.

When developing your strategy, target groups to consider include:

- K-12.
- Postsecondary (including technical, community, and university students),
- Unemployed and underemployed adults,
- Adults seeking second careers and career reentry, and
- Adults seeking career advancement.

The target groups included in your strategy should map back to industry needs and reflect multiple potential candidate pools. As the strategy is developed, there will not be a one-size-fits-all approach, however, there are common barriers that impede entry and advancement for women and girls (as well as other diverse groups) that need to be addressed.

Leading the Way: Women Build 901 Too!

Women Build 901 Too! is one example of a locally driven pipeline approach to increasing women's representation in a male dominated industry. The work is centered in Memphis, Tennessee (where the 901 area code is frequently used to represent the community). The group, led by Kit Crighton Smith, a Project management Advisor for Properties and Facilities at FedEx Express, formed through a grassroots effort to address the low numbers of women choosing construction careers. The group is comprised of representatives from Memphis area industry, academia, and public sector agencies (including the Memphis Chamber of Commerce). Women Build 901 Too! focuses on two distinct target audiences: 7th to 12th grade students and women from disadvantaged communities. The effort will highlight a wide range of career pathways including the building trades, business, and engineering occupations. At the core of the effort is the engagement of diverse women who will share their stories and encourage women and girls to consider construction careers through classroom visits, summer camps, and workshops for adults.

"As I went from meeting to meeting and job site to job site, I saw very few women. The building industry provides a variety of good paying jobs that women are more than capable of doing and we are an untapped market. I never thought I would be managing one of the largest construction programs in the area, but I am. I am good at it and I love my job. I want other women and girls to know they can be proud of their careers, make good money and provide a good life for their kids all by themselves. I wanted them to see other women, and maybe relate to us, and be inspired. I wanted to find other women like me that would mentor any girl or woman that wants to put themselves onto such an unconventional career path."

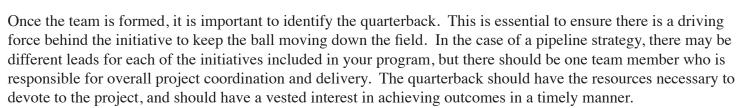
- Kit Crighton-Smith

Play 2: It Takes a Team

The importance of collaborative partnerships for addressing women's underrepresentation in transportation cannot be understated. Diverse partnerships not only provide expertise and resources to contribute to the effort, but also bring a wealth of perspectives that are crucial for successful program delivery.

Types of partners to consider for your team include:

- K-12 administrators particularly representatives from academic and career and technical education programs
- Postsecondary faculty and administrators (both workforce and discipline expertise), including technical schools, community colleges, and universities
- Industry (including public and private sector)
- Professional and trade associations
- Community organizations with focus on:
 - o Women's issues
 - o Wraparound services for disadvantaged populations
 - o Youth
- Local chamber of commerce and workforce boards



Leading the Way: USDOT Office of Small and Disadvantaged Business Utilization

The United States Department of Transportation Office of Small and Disadvantaged Business Utilization (OSDBU) led a pilot Women in Transportation Initiative (WITI) program during fall, 2015. The effort was undertaken in collaboration with Florida Memorial University (FMU) and numerous public and private sector industry partners to encourage young women to pursue careers in T-STEM/Aviation. Ten young women from FMU studying in various disciplines participated in a transportation-related industry experience for four months, with students rotating through industry host sites throughout Miami-Dade County. In establishing a multi-pronged and meaningful experience, corporate executives and agency professionals engaged students with briefings and organization overviews and provided facility tours and hands-on experiential learning activities that immersed students in actual work environments.

A number of successes resulted from the WITI experiential learning pilot, including that of a student who would be characterized as least likely to achieve success based on societal perceptions of health, income and social position. Notwithstanding these socioeconomic obstacles, the student achieved remarkable success marked by her acceptance at the Federal Aviation Air Traffic Controllers Academy in Oklahoma City, OK.

In addition to the industry experience, Women's Transportation Seminar (WTS) provided complimentary membership to each of the students that included enrollment in its mentorship program and access to female transportation professionals for career and educational support. Since the pilot in 2015, OSDBU's southeast region has engaged dozens of female college students, and all 10 public and private sector partners remain committed to supporting the WITI initiative.



Play 3: Tackle Common Barriers

There are three primary barriers that must be addressed for increasing representation of women in the transportation industry. These are overarching issues that are barriers regardless of target audience – whether K-12 or adult.

Knowledge and Awareness

The first obstacle to tackle is that of knowledge about and awareness of the transportation industry and its associated career pathways. This is the most critical issue, in that transportation is largely ignored and misunderstood. Whether you are talking with K-12 students, their parents, or adults considering career reentry options, a commonality is a very narrow definition of what a transportation career might be, an assumption that transportation occupations are low-wage and have limited potential for advancement, and the perspective that transportation jobs are not meaningful. Even with college students who are in transportation-related majors (such as civil engineering), there is very limited recognition of the breadth of opportunity available. It is important to not only raise awareness and increase knowledge about transportation careers, but to also change the conversation to focus on the diversity of career options and the significant contribution of transportation professionals in our communities.

Exposure and Experience

Experiential learning is one of the most powerful ways to demonstrate potential in a career path and to help individuals connect with the career. Students and others who are at different points within their career journey need access to programs that provide hands-on experience and in-depth exposure to specific transportation careers. For K-12 students, this may take the form of summer camps, afterschool programs, field trips, and innovative academic efforts (such as the T-STEM Academy at East High School). For college students, course projects (such as those available from ITS PCB), special topic classes, transportation-related student organizations, and internships are typical ways of providing exposure to transportation careers. For adults, workshops, conferences, and professional organizations (such as Women in Trucking) can provide opportunities for experiential learning.

Apprenticeships are also an excellent option for providing not only education and training required for entry into a particular career, but also the work experience and understanding of pathways for advancement. Apprenticeships can be developed for any target audience, from K-12 through adult.

Identity

The question of belonging or sense of identity within a particular career is particularly important for underrepresented groups, and especially women. Whether women are considering trades or STEM occupations, the fact that these careers are dominated by men can lead to concerns from women about whether or not they will 'fit'. The ability to see oneself as belonging and being successful in a particular occupation has a direct correlation to not only entry into an industry but also retention and advancement. Strategies to help women connect to careers and to role models through mentoring, networking, or other approaches can be very impactful for addressing issues with identity.

Strategies designed to help women see themselves as belonging and successful in a particular occupation can move the needle for recruitment, retention, and advancement.

Spotlight on Transportation Careers

The Transportation Spotlight program was developed by SETWC to highlight diverse professionals across a range of transportation occupations. The goal of the program is to demonstrate the breadth of opportunity and diversity of backgrounds needed within the transportation industry. Participants of the Spotlight program provide information about their career pathway, employer, and impact they make in their communities. They also share advice with students considering a similar career. Profiles are shared digitally via social media (LinkedIn) and the SETWC website and are used in PDF and print form with:

- K-12 students, teachers, parents, and guidance counselors,
- Postsecondary students and educators, and
- Candidates who are unemployed, underemployed, or seeking career transition.



Q: How did you select your certification

program or college major?

program or college major?
A: As a child, I always had a curiosity for technology.
What makes things tick? How is this system or device brought to life? From that, curiosity sparked an interest in pursuing a career in the technology field. Capitalizing on my extroverted tendencies, I chose information systems as a way to ensure that communicating with people every day would always be a part of my job.

- O: What was the biggest influence in your selection of major/career pathway?

 A: The biggest influence was the encouragement of my family. There were instances when I walked my parents through how to program the TV or their personal laptop. Explaining along the way what we were doing and WHY we were doing it. It brought me joy to share my passion, and get their tasks accomplished as well. Seein yz ead for this industry and its increasing demand my parents encouraged me to start my IT Career.
- Q: What attracted you to the transportation industry? transportation prior to applying at VDOT. I had simila knowledge to that of the average citizen. I knew what VDOT stood for, but wasn't confident on impact.

After just over a year here. I've learned so much about transportation and its impact on our day-to-day lives. I've also learned about how much technology is wowen into this industry through the various projects I've supported. It's been a tremendous learning experience and I'm excited to learn more as I continue my career here at VDOT.

www.vdot.iobs



Q: What is your favorite aspect of your job? A: I love the versatility. As a CDP Associate, I get the opportunity to not only support the IT division, but also explore and learn about other divisions in the agency. This gives me a better look at the "big picture" and how IT fits into it. I've worked on projects that focus on IT Solution Support, Business Process Analysis, Recruiting, Data Analysis, Disaster Recovery and more! It's definitely been a learning experience.

Q: How do youlyour company make a positive impact on society/your community? A: VOOT is responsible for maintaining and operating the roads, bridges and tunnels in the Commonwealth of Va. VOOT does more than just snow removal from highways. They partner with municipalities to

ARANSPORTATOL

CATALINA

COMPANY:

TITLE: Project Manager

TRAINING ORGANIZATION

CERTIFICATION/DEGREE:

01 How did you select your certification program or college major?
As I decided to study industrial Engineering because of the degree concentration in engineering management. I became interested in transportation projects during my years in the undergraduate research program. The Center for Urbian Transportation Research (CUT) is located in the USF Tampa campus and they had many interesting projects they had many interesting projects where industrial engineers were involved. I became interested in traffic and intelligent transportations systems and intelligent carability and systems (ITS) projects. Therefore, I decided to do a master's degree in transportation, while being a graduate research assistant at CUTR with the ITS group.

O: What was the biggest influence in your selection of career pathway?
A: The biggest influence was CUTR.
This program helped me understand how all engineering majors play a role in the future of transportation.

O: What attracted you to the transportation industry?
A: I've always been fascinated with interchanges and how incredible the highway system is.

on everyone's' daily lives and our own. Traffic operations is an exciting field to be in right now with all the uncoming connected and automated vehicles technologies and smart cities. I enjoy participating in the discussions of how technology can change the world that we live in now.

O: How do you/your company make a positive impact on society/our community?

A: We are encouraged by the company to give back and part of that is through charities. Some of the regional offices organize volunteer days. We always try to get involved with the local community donating not only money but also our tim



Federal Highway

Administration

MEMPHIS.

Southeast Transportation

Workforce Center



COMPANY: City of Overland Park, Kansas TITLE: Sr. Traffic Engineering Technician COLLEGE: Southern Illinois University at Edwardsville & Johnson County Community College

CERTIFICATION/DEGREE: BA in Finance Associates in Drafting, APWA Construction Sidewalk Management System through University of Wisconsin-Madison

0: How did you select your certification program or college major? A: Originally worked in the business/retail environment. In the early 1990's I took the opportunity to change careers by going back to school for the drafting degree.

Q: What was the biggest influence in your selection of major/career pathway?

As that was the biggest influence in your selection to major factor partway?

As Drafting was something I loved to do. Sketching out floorplans was one of my favorite things to do. I was first exposed to it in school during grades. Th and 8th. Also several family members who did some drafting as part of their jobs. Eventually, I looked at the things I liked to do and worth about doing what I needed to do to build my next career. That involved going back to school for the drafting degree.

erland Park Public Works nce Division doing a nspection and inventory low route optimization. ion doing interesting

s, sight distance

deral Highway

signal design

Q: What attracted you to the transportation industry?

.01 What's the most interesting thing you have been able to do in your professional career?

#21 I would say working in the design of a tunnel management system in the Middle East. There are only two (2) tunnels in Florida so we don't really have an opportunity to constantly get involved in this type of work. Also, I was working with mechanical, electrical, and communication's engineers. We all contributed in one engineers. We all contributed in one way or another to this project

What makes you get up each morning excited

ach morning excited about your profession?

At It feels good to contribute to quality of people's lives. Traffic is something that we experience every day and we are constantly looking for ways improve the transportation system.

O: If you could go back to high school and select any elective course to take that would have better prepared you for college, what would it be? A: I would recommend design and

programming courses. Engineers have only one required course of each and those skills are always helpful after graduation

D: What advice would you share with students or anyone considering your profession?
At Take as many science classes as possible. Most of the engineering majors have a hard time and sometime drop out the first two years of math, physics, and chemistry. After the basic classes are done, you can oncentrate classes are done, you can oncentrate classes are done, you can concentrate







Play 4: Address Special Challenges for Underserved Populations

Women and girls from low socioeconomic status communities struggle with more than just the common barriers to transportation careers, including poverty, access, and multi-generational challenges. Entry into the transportation industry through a career pathway with growth potential can make a huge difference not only for the individual, but also for their family. Many transportation occupations provide the opportunity to propel women from poverty; this is especially important since women are often the head of household in low socioeconomic homes and empowering women can break the cycle of generational poverty. Non-traditional roles can provide economic self-sufficiency for women, but it is not always an easy sell nor a comfortable environment. It is especially important to consider the needs of women in these communities in order to develop effective programs for recruitment, retention, and advancement in transportation careers. Strategies to consider for K-12 and adult populations include:

- Transportation is often an obstacle for participants in terms of accessing programming. **Consider providing transportation** to the program from a central location in the community (such as a community organization serving target populations of women or youth), or bring the program to the community.
- **Help participants make informed decisions** about pathways to pursue based upon academic preparation, interests, and external demands they face (such as in helping to care for family members). Students need to understand all options and have a realistic outlook regarding what a particular pathway will require for success.
- **Educate parents** about the possibilities available to students through the transportation industry in many cases parents may also have misperceptions that must be addressed so that they do not discourage the student from pursuing an opportunity.
- **Create cohorts within a community** so that participants have like-minded peers to provide needed support as they pursue their goals.
- Carefully consider the diversity of role models and mentors selected to work in the program they can be even more impactful when they have shared a similar life experience with the women they are serving and are willing to tell their story.
- **Identify low-barrier pathways for career entry points.** In many cases, even short term training programs can be a challenge, as participants may not be able to afford program costs and lost wages. Where possible, connecting women and girls to apprenticeships, scholarships, and paid training is preferable to overcome these issues.
- **Help women build their 'village'.** It is especially important that a game plan is developed and that a formal support structure, with layers of backup, is in place for child or family care and other acute issues that arise.
- Wraparound services are crucial for providing the support needed to access opportunities
 and to be successful Invite service providers to the table when programs are being
 designed and developed.



Leading the Way: Women's Foundation for a Greater Memphis

For 25 years, The Women's Foundation for a Greater Memphis (WFGM) has been uniting women and helping to break the cycle of poverty through philanthropy, leadership and collaboration. Their mission is to encourage philanthropy, foster leadership among women and support programs that enable women and children to reach their full potential. Their vision is to be an agent of change committed to a community of wellbeing and prosperity, where women live in sufficiency, strength, and safety, sharing their leadership and empowering their children.

WFGM has played a major role as a backbone organization aligning people, resources, and coordinating community-based services through the two-generation approach to reduce poverty. In 2015, they unveiled their Vision 2020 Strategic Plan to reduce poverty by five percent in zip code 38126 through \$10 million in grant-making. Vision 2020 focus areas are case management and wraparound services, adult education, training and entrepreneurship, early childhood development, youth development and employment and financial education and asset building. Zip code 38126 has the highest poverty rate in the state of Tennessee, and is one of the highest poverty zip codes in the country.

WFGM is the founding sponsor of The University Of Memphis' (UofM) Girls Experiencing Engineering (GEE) program. The GEE program began in 2004, and was recognized in 2018 by Insight into Diversity Magazine with an Inspiring Programs in STEM award for achievements in increasing the number of girls of color pursuing STEM career pathways. While more than 1,000 girls from the Memphis area had participated in GEE by 2015, there had been no participants from 38126. Through support from WFGM, SETWC, and CN, a series of changes were made to provide access to both the summer GEE program and academic year STEM programming to students in 38126, and to add transportation content to the model. The new program model includes:

- Partnership with the Boys and Girls Club (BGC) (high school) and the Emmanuel Center (EC) (middle school) to provide a community-based location for pick-up of students to transport them to the GEE program at the University of Memphis via the University's shuttle service
- Partnership with BGC and EC to provide afterschool STEM clubs and ACT prep for middle and high school students in the community
- Regular STEM support, including robotics and STEM competition coaching (such as for UofM's annual transportation challenge), for a K-8 and a high school serving students in K-8
- Transportation engineering focused outreach activities with elementary, middle, and high schools serving 38126.

Since 2015, the partnership has now served more than 500 students in 38126 with STEM preparatory and career exposure activities, including a focus in transportation.





Leading the Way: Southwest Workforce and Community Solutions

Southwest Tennessee Community College's Southwest Workforce and Community Solutions (SWCS) program partnered with SETWC, industry, and community organizations to design a transportation-focused training program targeting women from low socioeconomic communities in Memphis, Tennessee. SWCS received a grant from EDGE: Economic Development Growth Engine for Memphis and Shelby County, that provided funds for SWCS to support women from a high-poverty community. A transportation focus was selected because of the importance of the industry to the economic vitality in Memphis and the current inability to fill demand for workers in the community. Memphis is known as America's Distribution Center, and more than 15% of Memphis citizens are employed in the sector.

SWCS identified existing transportation-related programs they offered where adjustments could be made rapidly to tailor programming to industry needs, and then met with stakeholders to determine where to focus. The goal was to select training programs to augment where there was demand for workers, low barrier to entry, and jobs that would provide women with the ability to care for themselves and their families. Specific driving factors included:

- Serving women in the targeted high-poverty community in Memphis
- Identifying occupations with wages at/above living wage (\$15/hour)
- Identifying high-demand occupations such that training leads to fulltime employment
- Identifying occupations that have pathways for continued education
- Providing short-term training that provides access to a career step

Stakeholder discussions determined that there are three occupational areas that met SWCS's immediate goals:

- CDL
- Diesel mechanics
- Signal/Operations technicians

Each of these occupations are in demand from highway construction, transit, and freight/logistics partners. And, each provides workers with starting salaries of \$50,000 or more annually, which is well above the median household income in Memphis of \$39,000.

The SWCS program takes a holistic approach that includes core skills (customer service, interpersonal skills) and wraparound services, in addition to training specific to the occupation. Additionally, industry partners participate in a speed networking event with program participants to help with interviewing skills. This program will offer 20 women training and services in spring 2020, and will connect participants with first

interview opportunities through partnerships with

local employers.

Play 5: Connect the Dots

One of the most important aspects for increasing women's participation in the transportation workforce is connecting the dots between training, education, careers and stakeholders. This includes not only how support programs for women are designed, but also how we are communicating challenges and successes with others in the industry. Best practices to consider incorporating include:

- **Tiered mentoring.** This may be between middle school, high school, and college students; college students, early career professionals, and senior leaders; or any combination of these. The tiered structure provides both near-peer and higher level mentorship and creates a relationship that can help mentees to better visualize career path progression.
- **Industry-Academia Collaboration.** Whether a program to attract, retain, and/or advance women in transportation is led by academia or industry, both partners should be at the table to make sure that connections are made between:
 - o Education programs and workforce expectations,
 - o What is taught in classrooms about transportation careers and the role models currently in the workforce who can share first-hand experience, and
 - o Education required for advancement and options for accessing support and obtaining required credentials (in some cases, there may be programs in place with educational partners that can assist candidates in completing degrees via experiential learning credits, targeted scholarships, or other mechanisms).
- **Cross-pollination.** Sharing challenges and best practice solutions across organizations, modes, and sectors (public/private industry and academia) ensures not only that opportunities to collaborate are identified, but that the wheel is not constantly being recreated. This leads to much more efficient and successful program development and deployment.

Leading the Way: Choosing Transportation Summit

The Choosing Transportation Summit began in 2015 as an outgrowth of SETWC's efforts to bring industry stakeholders together to discuss workforce issues and share best practices, particularly for increasing diversity. The Summit consists of the following:

- Two-day professional conference focused on challenges and opportunities related to attracting, retaining, and developing a skilled transportation workforce.
- Blue Pump Gala, which is a fundraiser that supports scholarships for students pursuing transportation-related majors at the University of Memphis.
- Transportation Summit for high school students, conducted on one day of the conference and
 engaging students in a variety of sessions to increase their awareness of (and hopefully
 interest in) transportation careers. An annual Transportation Challenge competition was added
 as part of the high school conference in 2019.
- Transportation Expo in addition to providing a traditional vendor outlet during the professional conference, the Expo also provides an opportunity for participants to reach mid-south area college students and high school students during a career expo for each group.

Approximately 150 professionals (public and private sector and academia) and 100 high school and college students attend the Summit each year. The Summit is a truly collaborative effort, with industry and academia not only contributing to the professional conference sessions but also delivering workshops, participating in speed networking, and serving as mentors during a luncheon for high school and college students.





Play 6: Provide Support for Retention and Advancement

Once women are in the door to a transportation career, it is important that the support is available to address issues they may face regarding sense of belonging, connection to professional development, and access to advancement opportunities. Mentors and professional organizations play a critical role in this effort. There are several national level organizations that provide support for women in transportation, including:

- National Association of Women in Construction
- Society of Women Engineers
- Women in Trucking
- Women of Asphalt
- WTS (Women's Transportation Seminar)

If there is not a local chapter of one of these organizations in your area, start one! Or, if your community does not quite have the critical mass required to get a formal chapter off the ground, start a grassroots effort to support women in the industry. This could take the form of periodic lunch and learns, informal networking gatherings, or outreach efforts to K-12 or college students.

Leading the Way: Society of Female Transportation Professionals (SFTP)

In 2014, SETWC partnered with Vaco Logistics to start the SFTP to promote the recruitment, retention, and advancement of women in the transportation industry in Memphis. Vaco has served in a leadership

role from the beginning, providing the inaugural chair for the group (and continues to provide leadership and support for the group each year). The organization meets monthly, and has a regular schedule of professional development, networking, and outreach activities. The group includes both men and women, and organizes the annual Blue Pump Gala – a fundraiser that provides scholarships to students pursuing transportation-related majors at the University of Memphis. They also provide speakers and facilitators for the annual Choosing Transportation Summit and provide mentors for students in SETWC's Undergraduate Transportation Fellows program.



Lessons Learned

When attempting to change minds, create opportunities, and increase representation of women in transportation, it is important to remember that you will learn much along the way that will surprise you. The key to adapting to issues that arise is to lean on your team to troubleshoot, address unexpected mindsets, and develop workaround strategies. Lessons learned from the SETWC experience include:

- **Share, share, and share some more!** Be sure to include partners from the outset who have experience in the area in which you plan to embark and may have insight or resources that can be translated to your approach. Don't recreate the wheel.
- **Have patience.** There will be efforts you plan to undertake that take significantly more time than you expect at the outset. This is especially true if policy barriers are encountered and must be addressed. It is worth the time it takes to work through these issues to create a program where all stakeholders are comfortable, supportive, and committed to realizing success.
- We need more than just women at the table! Men are critical to the effort to increase participation and advancement of women in transportation. In many cases, men may be the best option for senior level mentors and can be fantastic champions and advocates for a program's success. Be sure to include and value diversity!
- **Change the transportation conversation.** We must build connections between transportation and STEM and transportation and community impact these are important aspects for engaging women and girls and demonstrating the value of the industry and its occupations.
- **Partnerships matter.** The right partnerships can move a project from delayed to warp speed. All it takes is the right connection. Consider partners to include based upon expertise, resources, and mission. When your initiative matches the mission and values of partnering organizations, you will be amazed at the progress you can make!

In the past, women have been under-represented in the Transportation Industry.

Most companies now realize that diversity in the workplace only adds to company success.

According to a recent Gallup poll, gender-diverse teams have higher sales and profits when compared to male-dominated teams. In addition, gender-diverse business units have higher average revenue compared to less diverse business units.

The takeaway is clear: diversity in the workplace makes an organization a better place to work with more job satisfaction, more dedication, more meaningful work and less burnout.

Resources

APEC Women in Transportation and Best Practices Compendium:

https://www.nathaninc.com/insight/apec-women-in-transportation-data-framework-and-best-practices-report/

Building a Business Case for Increasing Diversity in the Transportation Workforce:

http://onlinepubs.trb.org/onlinepubs/trnews/trnews323BusinessCase.pdf

Empowering the New Mobility Workforce:

Educating, Training, and Inspiring Future Transportation Professionals: https://www.elsevier.com/books/empowering-the-new-mobility-workforce/reeb/978-0-12-816088-6

National Network for the Transportation Workforce: http://nntw.org

National Association of Women In Construction: https://www.nawic.org/nawic/default.asp

Southeast Transportation Workforce Center: www.memphis.edu/setwc

Society of Women Engineers – A professional organization centered around empowering women to achieve full potential in careers as engineers and leaders, expanding the image of the engineering and technology professions as a positive force in improving the quality of life, and demonstrating the value of diversity and inclusion. https://swe.org

Women In Trucking - A non-profit organization with the mission to encourage the employment of women in the trucking industry, promote their accomplishments, and minimize obstacles faced by women working in the industry. www.womenintrucking.org

Women of Asphalt – A national coalition which supports women in all aspects of the asphalt industry. https://womenofasphalt.org

Women's Foundation for a Greater Memphis - An organization of women helping women break the cycle of poverty through philanthropy, leadership and collaboration. https://wfgm.org

Women's Funding Network - With more than 100 women's funds and foundations engaged, Women's Funding Network is the largest philanthropic network in the world devoted to women and girls. https://www.womensfundingnetwork.org

WTS – WTS attracts, sustains, connects and advances women's careers to strengthen the transportation industry. https://www.wtsinternational.org

US Department of Labor - Apprenticeship: https://www.dol.gov/apprenticeship/

US Department of Transportation – Women and Girls in Transportation Initiative: https://www.transportation.gov/osdbu/women-and-girls

Playbook Checklist

segment, and academia a priority.

Play 1: Develop a Pipeline Strategy. Start from an understanding of local drivers and workforce demands and identify the target groups to include in your strategy. Your approach should map back to industry needs and reflect multiple candidate pools.	
Play 2: It Takes a Team. Diverse partnerships not only provide expertise and resources to contribute to the effort, but also be a wealth of perspectives that are crucial for successful program delivery. Consider not only industrand academic partners, but also community organizations serving target populations, workforce boards, and chambers of commerce.	
Play 3: Tackle Common Barriers. There are three primary barriers that must be addressed for increasing representation of women in the transportation industry: Knowledge and Awareness, Exposure and Experience, and Identity. These barriers should be addressed through multi-pronged approaches that debunk misperceptions create opportunities for engagement, and help women and girls visualize themselves in transportations careers.	
Play 4: Address Special Challenges for Underserved Populations. There are numerous additional challenges that women and girls from low socioeconomic status communities will face in trying to access transportation careers. Programs should be designed arout these needs, and should integrate wraparound services to ensure participants have the best chance for success.	
Play 5: Connect the Dots. Connecting the dots between training, education, careers and stakeholders can go a long way towarmoving the needle for women in transportation. Consider how support programs for women can be designed with these connections in mind, and make collaborative approaches across modes, industrial.	e

Play 6: Provide Support for Retention and Advancement.

Addressing issues women may face once in a transportation career related to sense of belonging and access to professional development and advancement opportunities requires additional support. Mentors and professional organizations play a critical role in this effort – don't be afraid to create a program if one that fits your needs does not exist in your local community!

