

Women Techs: Solving the Tech Shortage Problem

Strategies for Attracting, Retaining
and Advancing Women in the
Transportation Industry

2022 - TechForce Foundation



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High demand for technicians continues to be a pressing concern in all sectors of the transportation industry — automotive, collision, diesel, aviation, marine and more — and it’s a concern that increases yearly as fewer people pursue a career as a technician. As indicated in TechForce Foundation’s 2021 Transportation Technician Supply & Demand Report¹, the industry’s demand for automotive, collision and diesel technicians in 2021 exceeded the number of technicians completing their certification in 2020 by over 500%. These industries need to quintuple the number of technicians entering the field to keep up with current demands.

Industry	Supply 2020	Demand 2021	Anticipated Demand 2022-2025
Automotive	32,715	177,998	335,718
Collision	4,504	25,094	71,114
Diesel	10,989	54,914	132,693
Combined	48,208	258,006	539,525

<https://info.techforcefoundation.com/en-us/supply-and-demand-report>

According to the Bureau of Labor Statistics (BLS), the demand for aviation², marine, motorcycle and other small engine³ technicians is also expected to grow annually from 2020 through 2030. Yet, the Federal Aviation Administration (FAA) issued 30% fewer mechanic certificates in 2020 than in 2019.⁴

Industry	Demand 2020	Anticipated Demand 2021	% Increase
Aviation	151,300	168,700	11%
Marine	21,700	24,600	13%
Motorcycle	14,000	15,400	10%
Other Small Engines	33,900	35,500	6%
Combined	220,300	244,200	

<https://www.bls.gov/ooh/installation-maintenance-and-repair/aircraft-and-avionics-equipment-mechanics-and-technicians.htm#tab-1>
<https://www.bls.gov/ooh/installation-maintenance-and-repair/small-engine-mechanics.htm#tab-6>

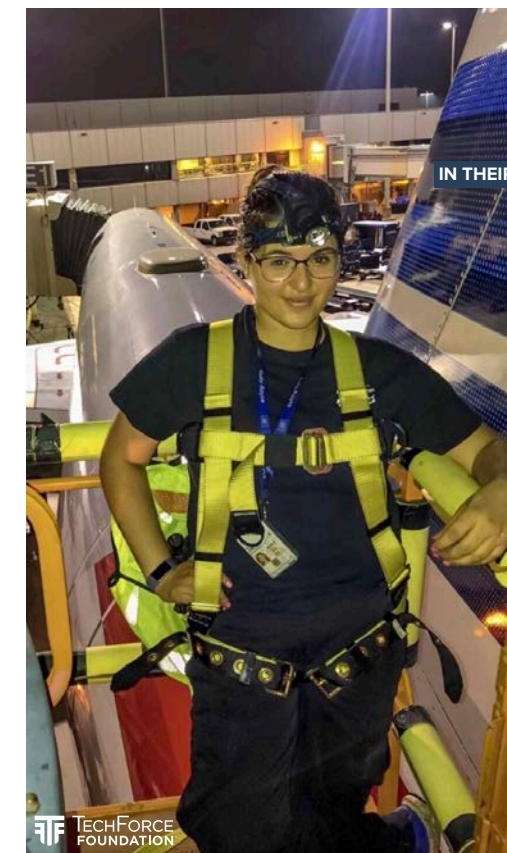
Why are women techs such an asset to the transportation industry?

“There’s so much demand for an approachable technician who can solve a problem in a different way. The opportunities are endless.” – Cat, auto tech

IN THEIR VOICES...

Businesses in all sectors of the transportation industry urgently need more technicians, yet women — who comprise 52% of the population — only account for 2.5% of employed technicians. With the tech shortage crisis worsening each year, one solution seems obvious: Hire more women techs. But how?

TechForce Foundation’s Women Tech Rocks⁵ initiative set out to find women technicians to celebrate them and learn from them so we can work together to increase the percentage. By interviewing women techs in the transportation industry, we identified trends, deficiencies and opportunities to minimize the technician shortage dilemma by accessing this untapped pipeline. This report includes these women techs’ suggested actions to help companies increase the number of women working in the transportation field, thereby closing the gap between the number of technicians needed and the number actively employed in the transportation industry.



IN THEIR VOICES...

If you could offer advice to your 16-year-old self, what would you tell her?

“There’s room for every part of you. There’s room in this world for every desire and every longing that you have. You just have to find the right people and the right support around you to help bring that vision into reality. Because we’re not all fortunate to grow up around the people that can help us get there. So if the people around you aren’t supportive, find the people that are because they’re out there.”

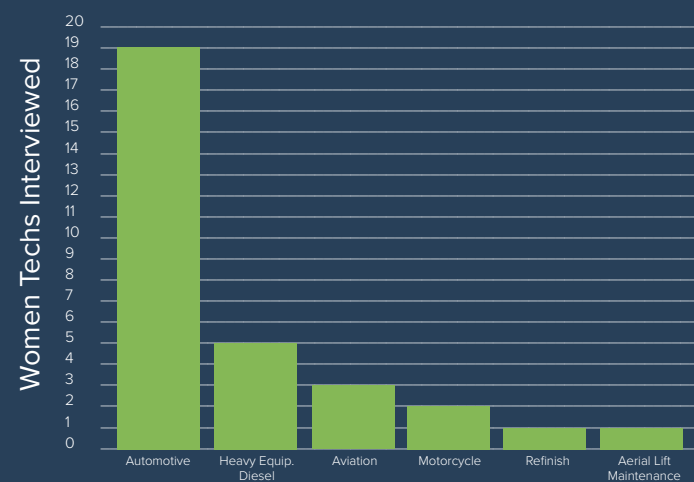
“Find what makes you truly happy, and pursue it. Don’t listen to everybody telling you how to make a living or get rich or whatever. You can chase those things forever and never be happy, but if you keep your happiness as a priority, whatever you do won’t feel like work. The next right decision will simply show up as long as you stay true to what brings you joy.” – Faith, motorcycle tech

¹ <https://info.techforcefoundation.com/en-us/supply-and-demand-report>
² <https://www.bls.gov/ooh/installation-maintenance-and-repair/aircraft-and-avionics-equipment-mechanics-and-technicians.htm#tab-1>
³ <https://www.bls.gov/ooh/installation-maintenance-and-repair/small-engine-mechanics.htm#tab-6>
⁴ <https://www.atec-amt.org/uploads/1/0/7/5/10756256/atec-pipelinerreport-20211029.pdf>
⁵ <https://info.techforcefoundation.com/women-techs-rock>

Women techs are talented and passionate technicians. In order to increase the number of women pursuing careers in the transportation industry, it's vital to understand their needs. By doing this, transportation employers enhance their ability to successfully attract, retain and grow more women techs. Through our Women Techs Rock initiative, TechForce sought suggestions straight from the source: women techs working in automotive, aviation and other segments of the transportation industry. The 31 unique women techs who lent their voices to this report range in age from 19 to nearly 60 years old, and they are located in various regions of the United States as well as Australia, Canada and the United Kingdom. Their experience levels vary from current apprentice to seasoned technician to retired professional, hailing from multiple segments of the transportation industry.

During our interviews, TechForce Foundation sought to understand several things:

- Why women techs chose their career paths,
- How they were influenced along the way,
- What challenges they've faced in their lives and careers,
- What they believe the industry could do to better support them, and
- What it will take to increase the percentage of technicians entering the workforce.



Through stories filled with failures and successes, each technician shared glimpses into her individual journey and provided insights into some of the transportation industry's strengths and shortcomings. During the Women Techs Rock interviews, trends and patterns emerged fairly quickly, revealing a lack of awareness about women techs' struggles as well as immense opportunities for this industry to implement diversity, equity and inclusion (DE&I) strategies more effectively.

100% of women techs encountered gender bias on their path to becoming a technician*.

What do you enjoy most about your job?

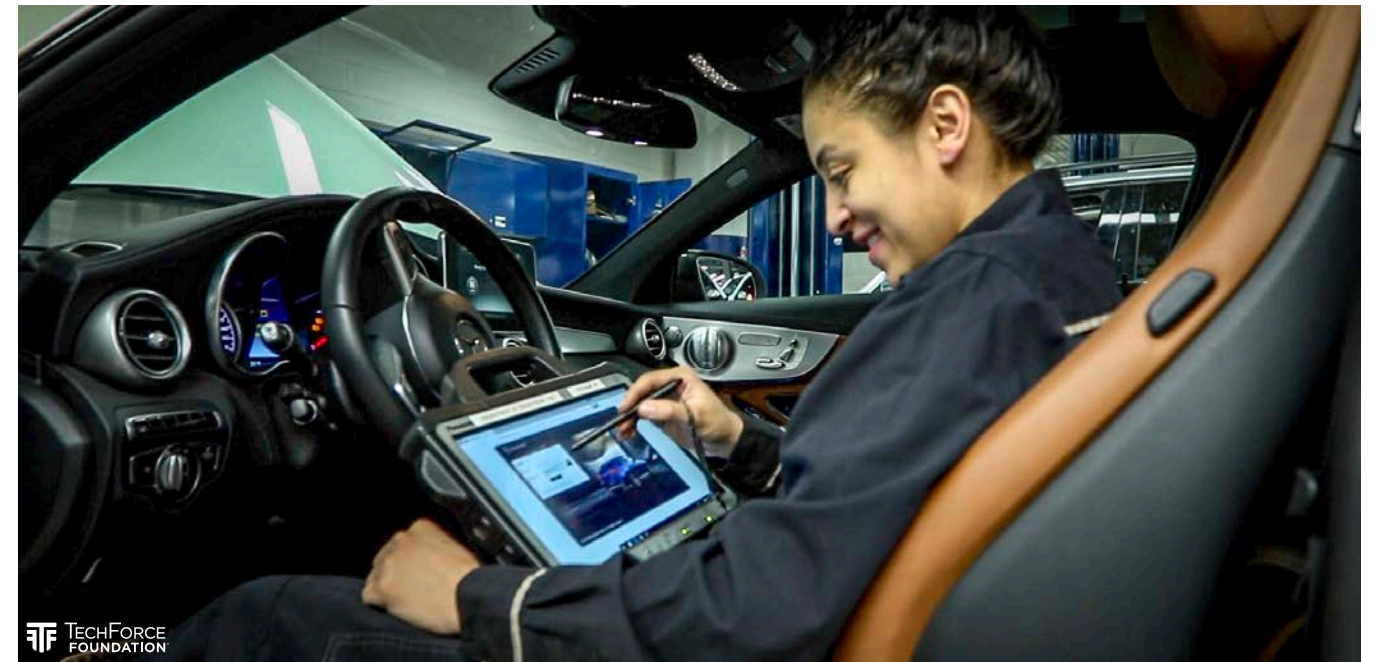
"It's never the same deal. Each morning, I wonder what I'm going to get to work on or learn today. Through the apprenticeship program, I work with my mentor, but all the guys are really nice and patient. They're educated and communicate with me when I have questions. It's really nice to know I have someone to help me learn and grow." – Brooke, auto tech

IN THEIR VOICES...

What was your biggest obstacle in pursuing a career as a technician?

"While still trying to navigate how to be a young lady, I had to learn to be a woman in a male-dominated industry. I found it to be very difficult, but I was fortunate to have a female teacher who had worked in the industry for many years. She took the girls in her class under her wing, guiding and helping us." – Elena, aviation tech

IN THEIR VOICES...



Women techs face an enormous amount of discouragement during their journey to becoming a technician. Discouragement to pursue a career as a technician often comes from outside the industry; however, educators and employers can rally around these future and current industry professionals by encouraging women techs to dream big and to pursue their passions. While the term "diversity, equity and inclusion" does not resonate with all women techs, the concepts consistently do, making DE&I strategies imperative for companies dedicated to increasing the workforce. Using women techs' feedback on the industry's deficiencies and opportunities, TechForce has compiled some suggested actions for increasing the number of women techs – and significantly impacting the technician shortage in a positive way!

If you could offer advice to your 16-year-old self, what would you tell her?

"You must really want it. You should have passion. Don't think about yourself any differently because you are a woman." – Allison, auto tech

"Find your confidence! Know when to speak up and how to deal with adversity. It's not something they teach in school and it's a lesson worth learning young. Also, don't stir the pot unnecessarily. If you have an issue, try to resolve it on your own first." – Josie, auto tech

IN THEIR VOICES...

*Due to the conversational tone of the interviews during the Women Techs Rock initiative, all statistics provided in this report indicate the number of women who explicitly referenced that subject. As a result, it is likely that the stated figures underrepresent the prevalence of these scenarios.
**In some instances, interviews with women techs could not be used for their protection, due to the severity of their circumstances.

Society's view of the transportation industry acts as a major deterrent for women interested in becoming technicians. Technicians are often portrayed as dirty and greasy, creating an image that few parents encourage their children to embrace, especially the parents of young women who often have additional reservations related to the challenges their daughters are likely to face while working in a male-dominated field.

93% of women techs were discouraged from becoming a technician when they were children/teenagers.

Although 53% of women techs indicated an interest during their youth, more than half (52%) arrived at their chosen career later in life and/or through non-traditional means, typically because they were discouraged when they were younger. A large number of young women who were exposed to the transportation industry did not pursue this career path as they grew up due to internalized societal pressures that led them to assume this "just wasn't something a girl was supposed to consider as a career."



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How can the transportation industry attract more women to this profession?

"Women need to see that they can do it. They can tackle this, or anything, and they need to stop listening to others and listen to themselves." – Bethaney, auto tech

"I'd love to see more engagement with schools at a younger age. At age three to five, we're already starting to build these stereotypes in our own head about what our mother's role is, what our father's role is, and if we're not seeing that diversity at home or in school, employers won't see a diverse outcome." – Cat, auto tech

"Start them young and teach women to raise one another up. Women must change from within and share ownership and pride with other women. Start in schools on teaching acceptance and understanding what that really means. It's ok to partner with others to help you as long as women are standing up for themselves." – Kim, auto tech

100% of women techs who attended tech school experienced bias while pursuing their education.

This perception of the technician role as a position meant only for men, as a career path that was unsuitable for women, continued into their education as well. Every woman who discussed attending a vocational high school or post-secondary program faced discrimination during her educational tenure. Most indicated that they were the only female; the rest were among a handful. Many recalled difficulties with instructors who didn't encourage her the same way they encouraged male students; however, a handful of women discussed the positive influences teachers had on them. The vast majority reported that the students themselves were their biggest challenge as a mostly male student cohort did not provide an easy road.



IN THEIR VOICES...

Do you feel like you were supported by your instructors and peers while attending school?

"I had some amazing, encouraging teachers. They never said, 'You're going to be discriminated against because you're a girl.' They didn't care about my gender. They told me, 'You're one of us, and that's how you need to carry yourself. Don't think you're better than everyone; somebody will always be better than you. Don't think of yourself as being a woman in this field because that's going to hold you back. You're a technician, and that comes first, not your gender, sexuality, race or anything like that. It's the fact that you're a technician who's good at your job.'" – Edica, auto tech

61% of women techs want to see more representation of women in the trade.

Seeing is believing; young women must be able to envision themselves in this trade. Few women techs saw women participating in their fields when they were young, and although they persevered in pursuing their chosen career path, 61% addressed the need for increased representation in order to attract more women to the trade. Women techs insisted that it's important to promote transportation industry careers to girls and young women to empower the next generation to feel confident pursuing this career path. Industry employers that want to attract more technicians should ensure that their recruitment efforts are geared toward attracting a more diverse workforce through engagement with schools and through the marketing messages they disseminate to the public.

39% of women techs engage in activities related to encouraging and supporting other women interested in the transportation field.

Hiring existing women techs provides an alternate means of increasing representation. In addition to enhancing career visibility overall, employed women techs who are happy in their careers become advocates for the industry. At least 39% of women techs engage in efforts to support other women with similar interests and promote the role of technician as a viable career path. Women techs were very anxious to share their stories as a way of helping other women because they all indicated the need for more women in the field; however, they repeatedly stressed that women should only pursue this career path if they're passionate about it, and several women techs told us how they're involved in mentorship programs designed to encourage young women to explore their proclivity for working as technicians.

39% of women techs engage in activities related to encouraging and supporting other women interested in the transportation field.



IN THEIR VOICES...

What challenges did you face as a woman studying to become a technician?

"I would say my challenges in school happened because I was a minority, not necessarily because I was a woman. As a minority, the spotlight is on you, and because of that, you're under a lot of pressure. Unless you're willing to face those horrible challenges and be the best of the best, it will spit you out. I could be the hardest worker in the class, but that wouldn't stop one of the guys from claiming, 'You're only here because you're a girl; you only received that award because you're a girl.' Some may call it banter, but it's actually bullying. I didn't expect them to treat me differently as a woman, so I worked hard and earned their respect by proving myself. That's how we change their minds." – Cat, auto tech

81% of women techs believe the appeal of working in STEM will attract more women.

Advancing technology presents tons of challenges... but women techs are up for that challenge! Much of society views the trades as an uneducated field, but as the trade becomes increasingly technological, women techs indicated that promoting the role of technician as a STEM (Science, Technology, Engineering, Math) field provides a new opportunity for attracting more women to the transportation industry.

If you could offer advice to your 16-year-old self, what would you tell her?

IN THEIR VOICES...

"I wanted to join an automotive class in high school, but at that time, people viewed it as a class for boys and told me not to do it. I was too nervous to express what I wanted and go against the status quo, so I took a photography class. I enjoyed it, but if I could talk to my 16-year-old self, I'd tell her, 'Don't listen to anybody else. It doesn't matter who they are or how important they are to you; you're important to yourself as well. Go out and try the things you want to try.' If I had, I could have found this career 10 years earlier." – Melesa, auto tech

ACTION ITEMS FOR EMPLOYERS:

- Be mindful of marketing messages to avoid perpetuating a negative image of the transportation industry
- Create marketing materials that represent the diversity of your current workforce to increase diversity in your future workforce
- Actively recruit women technicians
- Attend career fairs and career days at local schools, and encourage women techs to participate as well
- Increase visibility of existing women techs in recruitment materials
- The role of technician is a STEM field. Promote it as such

Once a business has managed to attract and hire more technicians, retention is paramount to a company's success. Retaining technicians is much more cost effective than recruiting and hiring new employees: Replacing a highly specialized employee can cost up to four times¹ that individual's annual salary through expenses related to recruitment, onboarding and training; however, there's also an associated opportunity cost. High turnover rates lead to low employee morale and reduced productivity which can damage the brand. Technicians often directly attribute their loyalty to an employer to work culture, which can mean different things to different people. Women techs view a positive work environment as one that promotes equity within the organization by paying them equal salaries based on experience, offering them the same benefits and advancing them at the same rates. Incorporating equity into work culture merely means identifying, addressing and eliminating bias.

84% of women techs experienced bias in the workplace.

After entering the industry, 84% of women techs explicitly referenced experiencing bias from customers, co-workers or management. Employers can negate this by engaging in open dialogue informally as well as through diversity and sensitivity training. Involving women in discussions, listening to their insights and developing a DE&I strategy from this knowledge will allow employers to address and eliminate microaggressions and unconscious bias commonly experienced in the transportation industry, making it a more palatable career path for women techs. Policies prohibiting bias are only effective when they are enforced from the top levels of management/ownership, and everyone is held accountable.

How can the transportation industry retain more women techs?

IN THEIR VOICES...

"There are a lot of discouraging things happening out there, and I think the way to keep people in the field is we have to mentor each other and show up for each other. We have to realize that the woman standing next to you is not your competition, and there's room for more than one woman at the table. We can all fit there." – Jill, auto tech



13% of women techs left a job because her concerns were ignored.

Women techs demonstrated palpable relief for the opportunity to be heard, enforcing the importance of allowing them to use their voices in an industry where that opportunity is scarce. As a minority in a male-dominated industry, women techs commonly remain silent in the face of adversity; they hesitate to draw attention to their presence in a situation where their mere existence is an anomaly that constantly places them under the spotlight. They typically take the stance of "just brush it off" when faced with conflicts in the workforce and are hesitant to assume that mistreatment is related to gender bias; however, when they experience bias, they're often reluctant to voice their concerns because they feel their complaints fall on deaf ears, or they opt to remain silent for fear of retaliation.

What did you do after you obtained your automotive degree?

IN THEIR VOICES...

"Thinking about my first job brings up a lot of bad memories and causes a lot of pain. That's where I learned that there were still sexist people in this field who believe women can't work on cars. But I'm still just as passionate as ever and will continue in this field. I just tell myself, 'Keep going,' and I focus on learning more every day so I can become better at my profession." – Cassandra, auto tech

100% of women techs want to be valued and respected for her skills, not her gender.

Women techs want to be included in the workplace, but inclusivity isn't about making accommodations; it's about acclimating to a work culture that embraces qualified technicians, regardless of gender or any other factor outside their job performance, by incorporating their presence into business planning and strategy going forward. Uniforms are one example of this: Women are built differently than men and deserve uniforms designed to fit that physique as a safety precaution. Ill-fitting male uniforms present hazards, such as longer pants legs tripping her or extra material getting caught in equipment. Taking stature into account may also lead to investing in new tools and equipment that are designed to enhance leverage and make the job easier for everyone.

Do you like what you do?

IN THEIR VOICES...

“Yes, but it’s hard being a female in a man’s world. I’m actually looking for a new job because no one listens to me. I’ve seen the way the gentlemen talk to each other compared to the way they talk to me and [my female colleague]. They talk to us like we’re stupid; they talk down to us. No one pays attention when I point out a problem, but it’s addressed as soon as a man says something. I hate that my manager doesn’t listen to me, so I’m looking for a new job. [A female co-worker] has started speaking up; she’s done being quiet. But I see the backlash she gets, so it makes me a little scared to have her back as much as I want to. I’m just afraid of the outcome.” – Adrian, refinish tech



90% of women techs referenced the value of belonging to a career-based community.

Sometimes, when women ask for space in the industry, they mean that literally. A commonly mentioned problem is the lack of women’s bathrooms and/or locker rooms. More often, the “space” women techs refer to is a place where she feels welcome. Being a minority in any industry can feel isolating, and many women techs shared this experience. Community plays a vital role in successfully building a diverse workforce and cultivating a positive work culture by offering women techs a support system to rely on. Unfortunately, the overall lack of women technicians creates a perceived absence of community, often causing women techs to feel isolated and less comfortable advocating for themselves. The absence of other women in similar roles creates a void and a lack of knowledge about how to function as a woman in a male-dominated workplace. Women techs who feel supported excel in their careers; they are passionate about their profession and experience exponential growth. The pride they take in their work enhances the quality of workmanship the business outputs. Employees with higher job satisfaction expressed the intention of continuing along the technician career path with hopes of advancement.

If you could offer advice to your 16-year-old self, what would you tell her?

IN THEIR VOICES...

“If you know what you want to do, don’t let people talk you out of it. You know yourself better than anybody else.” – Kelly, aerial lift maintenance tech

“There’s nothing to be afraid of. If you want to make this industry your place, you’ll make it here. Sure, you’ll have ups and downs; everybody does. Bad days, good days and even days you want to quit, but if you have a passion for the field, it’s meant for you, and you’ll make it happen.” – Makayla, diesel/heavy equipment tech

ACTION ITEMS FOR EMPLOYERS:

- Assess your organization’s work culture, identify opportunities for improvement, and develop a comprehensive DE&I strategy that includes women techs
- Develop DE&I policies, and provide training on those policies. Hold everyone accountable for adhering to the organization’s DE&I policies; leadership’s actions determine the success of these policies
- Establish a method through which women techs can feel safe reporting bias in the workplace. Listen to women techs by making them part of the conversation during business planning sessions
- Offer women techs equal pay and benefits as their male counterparts with equitable skill sets and experience
- Give employees the chance to demonstrate their capabilities, and then trust them to do their jobs
- Acclimate to women in the workplace by providing women’s bathrooms, locker rooms and uniforms as well as by investing in tools that make tasks less inhibitive
- Encourage women techs to seek career-based communities that can provide additional support in their careers

¹ <https://zetu.com/blog/hr-statistics>

Although women techs possess equitable skills and experience when compared to their male counterparts, they often contend with skeptical colleagues – and even management – who are unwilling to believe she has the skills to perform the job. Most Women Techs Rock participants indicated a need to “prove herself” by performing better than her male counterparts in order to earn respect in the workplace, despite having the same knowledge, skills and experience. Though they are willing to prove themselves by doing their jobs well, many indicated that they must demonstrate their abilities at a much higher level than their male peers in order to be viewed as equally competent.

100% of women techs want to continue learning new skills.

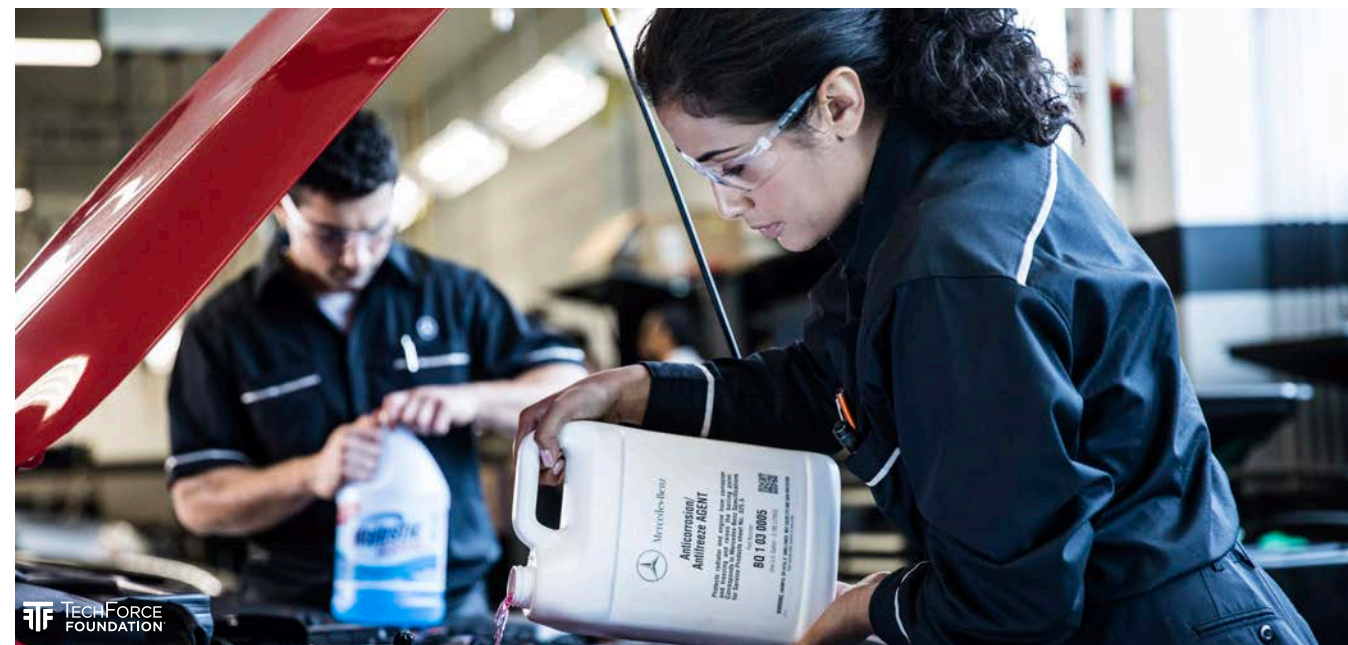
All women techs stressed the desire to continue training, expand their skillsets and be granted equal consideration for advancement opportunities. Many expressed discontentment at their aspirations being suppressed, while others professed no qualms about switching employers or industries when their ambitions are stifled. Additional training and mentorship throughout their careers are important as women techs want to advance their skills, and the most common way to achieve that is through ongoing training. Nearly every woman we spoke to also cited apprenticeship and mentorship opportunities as imperative in their own careers and in promoting the transportation industry to younger women.

How can the transportation industry support your efforts to grow in your career?

“Women need strong managers who believe in them and see past the gender bias to recognize who we are as technicians.” – Juliann, auto tech

“Being a woman in this field is different than being a man. I’ve attended a ton of training; just look at my credentials, like being an ASE-Certified Master Tech. Yet when I walk into a shop environment, I have to prove what I can do, while an employer will look at a guy with all those certificates and just assume he can do the job. We can’t keep waiting our turn. We have to actively pursue it and seize our seat as women.” – Jill, auto tech

“It feels great to go to a job where they KNOW what you can do, instead of feeling like somebody is weighing you down and preventing you from demonstrating your capabilities.” – Elexus, auto tech



Does any memory stick out as a turning point in thinking of yourself as a pro tech?

“When I asked a supervisor for help with an electronic wiring harness problem, he ended up taking over. I stood up for myself and told him, ‘I don’t want you to do my job; I want you to teach me how to do my job better.’ He treated me very differently after that encounter. Not only did I gain his respect, but I proved myself. He then trusted me going forward. We still stay in touch, and I remember that interaction as a defining moment.” – Kim, auto tech

IN THEIR VOICES...



65% of women techs drew a correlation between growth opportunities and job satisfaction.

Nearly two-thirds of women techs indicated a correlation between job satisfaction and growth opportunities – either in terms of skillset or career advancement – yet the majority of those women also reported a belief that their aspirations were inhibited or altogether prevented as a result of their gender. Career visibility goes hand in hand with representation; it’s vital that women are represented in all levels of management so women know what they can aspire to.

Have your aspirations ever been limited as a woman?

“After I graduated third in my automotive technology class with my certification, I was hired at a dealership. Within a month, they moved me to express lube and sent the current oil change tech to school, but I was only supposed to be filling in as a lube tech for a month. Two years later, they still hadn’t hired a lube tech, and when they moved a guy with fewer credentials from another department to the service area, I got really upset and realized they were never going to let me become the tech I wanted to be. Luckily, I found another job pretty quickly.” – Elexus, auto tech

IN THEIR VOICES...




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Have you ever felt that an employer discounted you because of gender?

IN THEIR VOICES...

"I applied at a place where they kept telling me that I was too pretty to work in the shop. They wanted to hire me for parts, though I'm credentialed for the service department. Keeping my end goal in mind, I asked questions to find out if I would be eligible to advance to where I wanted to go if a spot opened up. Though they said I would be eligible, they also told me that my resume would go in a stack with all other applicants at that time, so even though I had my foot in the door, I would still be shoved under the stack. That confirmed that they weren't taking me seriously and would hire somebody else if given the opportunity."
 – Faith, motorcycle tech

63% of women techs left a job that limited their growth.

Many women in this field repeatedly reported attempts to limit their growth which poses a huge risk for retention since lack of advancement opportunity is one of the most common reasons cited for leaving a job or the industry (by women AND men). Of the women who shared a reason for leaving a past employer, 62.5% separated due to lack of advancement opportunities. Several trained technicians shared experiences of being pigeonholed into the role of lube tech for years, while simultaneously watching less experienced male colleagues receive training, promotions and raises. Identifying and defining career paths is another important task employers must undertake to show women techs what their journey as a technician could look like. While this is important for all employees, it plays an even more essential role in women's careers since many women choose to become mothers, and pregnancy is not always conducive to working in a shop environment; however, it's important to note that while women techs acknowledge the difficulties of juggling work/life balance as a parent and technician, few want to be permanently moved to an office setting.

If you could offer advice to your 16-year-old self, what would you tell her?

IN THEIR VOICES...

"Have faith in yourself. People will question you and ask why you're doing something you're passionate about, and in that moment, you need to believe in yourself enough to know that you're doing this for a reason." – Elena, aviation tech

"Go for it. If you love it, you'll do well. Put your heart and soul into it; no one can take that passion away from you with words unless you allow them. When we find ourselves in a bad situation, a lot of us believe we don't have a choice – that makes us feel helpless, but we actually have three choices: put up with it, say something or change workplaces. There's power in taking ownership of your life and deciding what you're going to do. The decision is within your control. Sometimes it can seem like the world is against us, and we might lose motivation, but self-sabotaging ourselves doesn't help anything. Go for it. Even if you don't get the position, you've still acquired the skills that you can take to the next job." – Louise, diesel/heavy equipment tech

ACTION ITEMS FOR EMPLOYERS:

- Offer training and educational opportunities at the same rate as they are offered to men
- Establish apprenticeship/mentorship opportunities to help women techs further refine their skills
- Elevate equally qualified women techs at the same rate as men techs via professional development opportunities
- Develop a career path that includes positions for women techs while they are pregnant and when they return to work after having children
- Highlight women techs in your organization by submitting them to Women Techs Rock at bit.ly/WomenTechs

Women technicians acquire the same training as men technicians for the same reason – they love what they do; however, their overall job satisfaction – and whether they continue their career path in the transportation industry – is largely influenced by their employers, and there’s plenty of opportunity for transportation businesses to acclimate to a world where the search for new employees includes the entire population, not just 48% of potential workers.

What keeps you going when the job gets tough?

“They say if you’re really passionate about what you do, you don’t work a day in your life. When I wake up in the morning, I don’t think ‘I’m going to work;’ instead, I think, ‘I’m going to learn things, I’m going to go do something I love.’ And that’s how every person should feel – whether she wants to work on cars or if he does something else. If you’re passionate about it and keep pushing forward, it’s going to be rewarding.” – Brooke, auto tech

IN THEIR VOICES...

The technological tsunami offers an ideal scenario for attracting more women who are increasingly interested in STEM careers, but first, transportation employers must take steps to ensure that the working conditions are such that these women techs have a place where their skills will be nurtured and valued by embracing the concepts of DE&I. It means doing more than simply hiring a diverse workforce; employers must also be willing to treat all employees equitably and develop an inclusive work culture that recognizes and celebrates differences – because women and men ARE different, and that’s a good thing! Different perspectives offer greater creativity and problem solving, leading to higher customer retention, enhanced innovation and increased profitability. While women techs provided the suggestions conveyed in this report, these opportunities benefit male technicians, other workers and the companies that employ them. Implementing their recommended solutions can help the transportation industry create a more diverse, equitable and inclusive work environment that is conducive for attracting more passionate, qualified technicians to fill the increasing demand. Working together, we can create a stronger community of technicians and a more attractive work environment for a qualified workforce.

If you could offer advice to your 16-year-old self, what would you tell her?

“Don’t back down on your opinion. Don’t back down on your values. Learn to deal with the boys’ club mentality. When I started showing them up, the men made life harder, so you must find a way to balance doing your best and managing the male and female rivalry. Think about why the men might be giving you a hard time. Most of the time, it’s because they are jealous of your abilities!” – Riley, auto tech

“Don’t look at that job as a chance to prove yourself in a male-dominated industry. We belong here, but proving it is not the point of taking the job. Take the job because you love the mechanics – because you love working on motors or vehicles. Narrow your mind and focus on that. Don’t worry about what the next guy, or even the next girl, thinks about you. That’s not important, and it’s not why you took this job. Be passionate about your skills.” – Edica, auto tech

IN THEIR VOICES...

Women techs are fierce renegades who refuse to be stifled by society’s expectations; they resiliently overcome challenges and reject any attempts to limit them. Women techs love being technicians – and they hope more women will join their ranks, but in order for that to happen, transportation industry employers must establish a culture where women feel welcomed and supported – where they can envision themselves enjoying a long career. DE&I strategies help employers cultivate a work culture that accomplishes all that and more. Businesses that hire and retain women techs accomplish much more than merely filling a job position – they create an ideal situation for attracting employees in the future because women techs who are satisfied in their jobs are prone to promoting that employer and the industry as a whole. And with that kind of passion fueling the search for more technicians, the tech shortage will become a thing of the past in no time.

What is your personal mantra that helps you get through the tough moments?

“It’s just a wall that you have to break through. You’re a wrecking ball. Take a deep breath and tackle it again.” - Alexandria, diesel/heavy equipment tech

IN THEIR VOICES...

“Enjoy – it’s tattooed on my wrist because my grandfather, who’s no longer with us, used to tell me, ‘Just enjoy’ whenever I had a rough moment. Just enjoy the little moments, the moment you’re in. Don’t get scared or worried. Breathe, embrace it, and enjoy what’s going on.” – Brooke, auto tech

“The only person holding you back is YOU, so just do it.” – Elena, aviation tech

“Everything always works out for me. There’s a silver lining to everything. Keep your end goal in mind and believe you can achieve it, and things will always end up working out.” – Faith, motorcycle tech

“It’s okay not to know something, but you have to figure it out. The problem isn’t going to solve itself. Keep your head up, and ask for help. You’re not the only one who has needed help at some point.” – Jackie, motorcycle tech

“Fear is just False Evidence Appearing Real.” – Dee, diesel/heavy equipment tech

“Don’t give up. I face obstacles but find my path forward. If I struggle, I look for a solution, and if I can’t find one, it is okay to ask for help. We [women] may be more physically challenged, so sometimes you have to ask for help. If you fall off the horse, dust yourself off and keep going. There is no such thing as a stupid question.” – Riley, auto tech

“Try it. But don’t be afraid to ask for help because you’re not going to be the best at everything you try to do.” – Katrina, aviation tech

“I stick with what I do. I never give up.” – Keara, diesel/heavy equipment tech

“Breathe. Think about what got me here and then which three steps are needed to get me past it.” – Kelly, aerial lift maintenance tech

“What if I fail? But what if I fly?” – When I’m really scared or overwhelmed, I remind myself there’s risk involved whether I attempt this amazing thing or not. So why shouldn’t I try?” - Louise, diesel/heavy equipment tech

THANK YOU

Dear Reader,

For this paper to have taken shape, many people, organizations, companies and supporters had to be behind the effort. The most important group to thank are the women technicians who lent their voices in the countless hours of interviews providing their expertise on the real-life job of being a professional technician. Industry, associations and supporters of diversity, equity and inclusion (DE&I) will recognize that these women are breaking barriers and inspiring other young ladies into a world of greater possibilities.

To hear their voices more clearly, please visit: techforce.org/wtr

We invite you to work with TechForce to raise the bar of awareness for this profession, increase the number of young folks entering technical education for careers as technicians, and forward a new generation of the technician workforce.

Let's work together to solve the tech shortage.

Dana Rapoport
Chief Consultant, Diversity and Inclusion
TechForce Foundation

drapoport@techforce.org
www.TechForce.org

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David W. Ellis



Kimberly McWaters



TechForce Diversity and Inclusion Advisory Council

Kim McCullough
Council Chair

Michelle Johnson
Nissan

Margaret Baxter
CADIA

Kim Pritchard
ZipLine

Jeff Jennings
Volvo

Denise Kingstrom
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Jayne Blasman
Femcanic Garage

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Mann-Hummel

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Danielle Hamilton
San Antonio Independent
School District

Kylie Hirko
Endeavor Business Media

Kozetta Chapman
American Airlines

ABOUT TECHFORCE



We are **TechForce**: students, working techs, instructors and industry professionals committed to powering the technician workforce (hence the name "Tech-Force").

TechForce is the only nonprofit 501(c)(3) committed exclusively to career exploration and workforce development for technician professionals across all industry sectors (auto, diesel, aviation, collision, restoration, motorcycle, motorsports, marine, welding and emerging technologies).

TechForce inspires people to explore the technician profession; supports students obtaining the technical education needed to be workforce-ready; and connects techs to resources, mentors and employers to thrive in their careers. Our mission is to champion all students to and through their technical education and into careers as professional technicians.





TechForce Foundation is a nonprofit 501(c)(3) with the mission to champion students to and through their education and into careers as professional technicians.

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