

# Issue BRIEF

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## Gender Segregation in Training Programs and the Wage Gap

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This issue brief demonstrates how women continue to be underrepresented in skilled-trade jobs and the barriers that women face in accessing these jobs through U.S. Department of Labor programs, which perpetuates the gender wage gap in America. The authors also offer suggestions that might facilitate greater opportunity for women to be exposed to, train for, and enter jobs in these fields. The brief uses data from a sample of Registered Apprenticeship participants, Trade Adjustment Assistance participants, and Job Corps participants.

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There is a well-known wage gap between men and women: in 2013, women who worked full-time, year-round earned, on average, 78 percent of men's median annual earnings.<sup>1</sup> This gender difference has decreased in the past decades. A significant gap persists, however; this is because, among other reasons, women are still more likely than men to work in lower-paying jobs, and they remain underrepresented in many high-paying occupations. In 2010, differences in occupational choice accounted for one-third of the gender wage gap.<sup>2</sup> Despite the steady increase in female labor force participation, women remain concentrated in health and personal care, as well as education, and craft and technical occupations remain male dominated. Predominantly female occupations tend to have the lowest earnings and predominantly male occupations the highest, even though the general skill requirements for these jobs are similar.<sup>3</sup>

Many women receive training through programs funded or administered by the U.S. Department of Labor (DOL). These programs provide opportunities for women to obtain skills that enhance their entry or re-entry into the labor market. However, evidence from evaluations of DOL-sponsored programs shows that women are clustered in training programs and apprenticeships for occupational fields that pay less than those for occupational fields that are predominantly male. Women are overrepresented in training related to health and clerical work, and they are heavily underrepresented in training in skilled manufacturing.

Greater access to high-paid trade occupations that are traditionally male dominated has advantages for women and their families, as well as employers. Access to these jobs can help women and their families be financially self-sufficient. Having more women trained in trade occupations helps employers have a more productive workforce and overcome skill shortages. It also can improve health and safety compliance at worksites.<sup>4</sup> In the light of these advantages, the Workforce Innovation and Opportunity Act of 2014 (WIOA) includes a provision that emphasizes the need for strategies that lead to equivalent pay for men and women, with a focus on increasing the participation of women in high-wage jobs where they are currently underrepresented.

This issue brief explores the barriers that women face in accessing skilled-trade jobs through DOL programs, and proposes a number of suggestions that might facilitate greater access to these jobs. Women also face challenges in access to other high-paid occupations, such as jobs in science, technology, engineering, and mathematics areas. However, because of the emphasis of existing DOL programs on training and apprenticeships in trades and service occupations, this brief focuses on women's experiences in these fields.

## WOMEN IN VOCATIONAL TRAINING AND APPRENTICESHIPS, IN NUMBERS

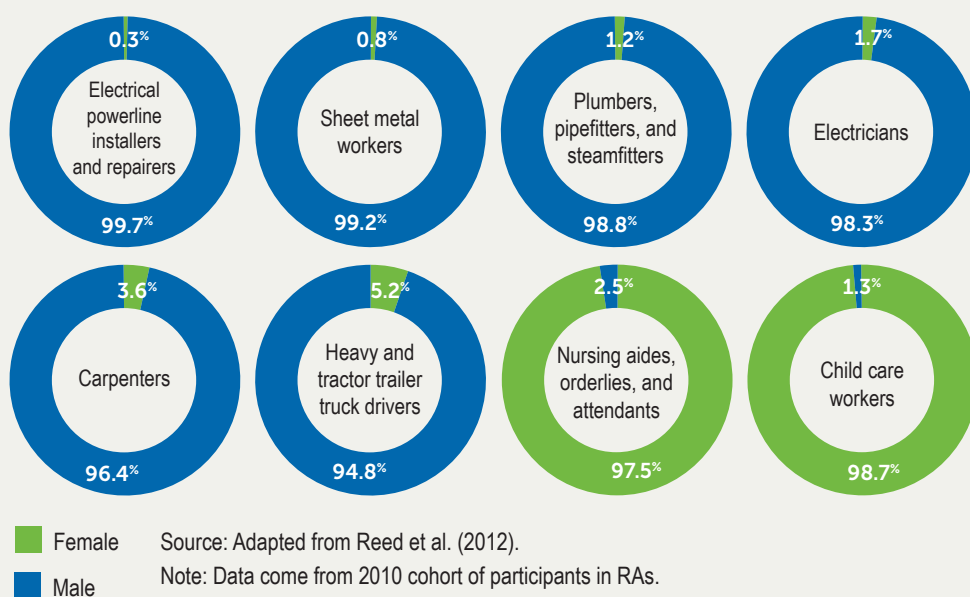
Across federal programs that offer different types of employment services and training, women continue to be underrepresented in nontraditional fields and overrepresented in ones such as personal care, retail, and clerical. In the Adult and Dislocated Worker programs previously authorized by the Workforce Investment Act of 1998 and now part of WIOA, only 1 in 15 women received training on mechanical and transportation-related occupations in 2009. However, training of females was disproportionately concentrated in sales, clerical, and administrative support jobs, where the female-to-male ratio was 6.0, as well as service jobs, where the female-to-male ratio was 5.2.<sup>5</sup> Gender segregation by occupation was greater among the most disadvantaged workers, such as low-income workers, single parents, and those who had not completed high school before receiving services.

Similarly, only 1 of 10 participants in **Registered Apprenticeship (RA)** programs are women, and most of these women are enrolled in apprenticeships in social services occupations.

In 2010, women accounted for 9 of 10 apprentices in the child care and nursing aide fields, but less than 5 percent of apprentice electricians, plumbers, pipefitters, carpenters, tractor drivers, electrical powerline installers, and sheet metal workers<sup>6</sup> (Figure 1).

A similar pattern exists among the participants of the **Trade Adjustment Assistance (TAA)** program, another federally funded program that provides employment services, job training, and other assistance to workers who have been adversely affected by foreign trade. Among those who receive TAA-funded training services, women represent 53 percent of participants. This is a proportion larger than the share of women among the general unemployment insurance (UI) claimants, reflecting the fact that sectors that employ women have been particularly affected by trade-related closures. However, women make up less than 10 percent of the training participants in installation, maintenance, and repair; transportation and material moving; and construction and extraction. In contrast, less than 70 percent of those who pursued training in health care support, office and administrative support, personal care and service, and healthcare practitioner and technical occupations were women.<sup>7</sup> (Figure 2).

**Registered Apprenticeships (RAs)** are high quality, work-based learning and postsecondary education opportunities offered by employers and labor management organizations in more than 1,000 career areas that meet national standards developed in partnership with DOL or federally recognized state apprenticeship agencies. RA offers on-the-job training, combined with related technical instruction tailored to industry needs. RA programs range from one to six years, depending on the complexity of the occupation and the type of program.



**Figure 1. Gender breakdown of Registered Apprenticeship participants, by field**

### Key Barriers

- Gender stereotypes
- Limited outreach and information
- Limited prevocational skill training
- Challenges of being a pioneer in a male-dominated work environment

Similar patterns exist in other DOL-funded programs. Training programs for unemployed and disadvantaged workers in green energy and health care sectors show that training programs related to green jobs were disproportionately attended by male participants (about 71 to 90 percent) in two sites. The opposite was true for two sites that focused on training for health care jobs (79 to 84 percent were females).<sup>8</sup>

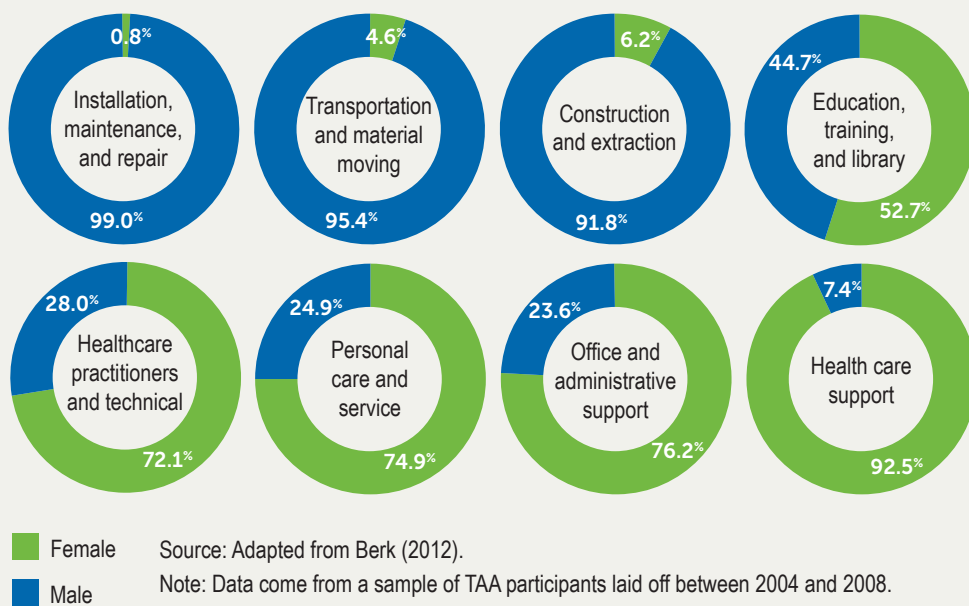
More historical data show that gender segregation was also present among a younger age group. In **Job Corps**, a federal education and training program that targeted disadvantaged youth, women constituted 40 percent of eligible applicants between 1994 and 1996. However, they made up less than 20 percent of those pursuing training in auto mechanics and repair, welding, construction, and electric and electronics, and they made up between 70 and 80 percent of participants in vocational training in health and clerical training<sup>9</sup> (Figure 3). Because Job Corps regularly adjusts program offerings in response to labor market demand, trends in the broader labor market might have changed the specific occupational fields in which young women pursue vocational training.

### KEY BARRIERS: WHAT KEEPS WOMEN AWAY FROM NONTRADITIONAL JOBS?

Factors that might contribute to underrepresentation of women in nontraditional occupations include gender stereotypes held by program participants, limited employer outreach and information on job content, limited prevocational skill training for women that is needed to prepare them for vocational training in nontraditional fields, and the challenge of being a pioneer in a male-dominated work environment.

In addition, the methods programs use to recruit participants, provide them with training, and place them in jobs might pose additional barriers. For example, participants in the RAs often are recruited through the social networks (in person and online) of existing employees. Many of these programs are extremely competitive, with interest far outweighing availability. As a result, women might have less access to apprenticeships because they are less likely to be in the social networks of the men already in the male-dominated occupations.

Services provided in **Trade Adjustment Assistance** program include access to subsidized training, extended UI payments, and wage supplements for workers ages 50 and over who found full-time jobs with earnings of \$50,000 a year or less. Participants can choose from a variety of training types, such as GED programs and ESL classes; however, most enroll in occupational training programs.<sup>7</sup>



**Figure 2. Gender breakdown of trainees enrolled in Trade Adjustment Assistance program, by field**

Moreover, when interviewed by Mathematica, women who pursued apprenticeship in male-dominated fields, such as construction, reported the difficulties arising from being a women in job sites, as well as having child care responsibilities. Respondents reported that they felt isolated and excluded, which can hinder them from acquiring needed skills and make it more difficult to acquire information on job openings and opportunities for promotions. Other respondents pointed out that construction sites where most of the on-the-job training took place were a long commute from where they lived, which required them to find day care for a longer period. Some women had to quit the apprenticeship for this reason.

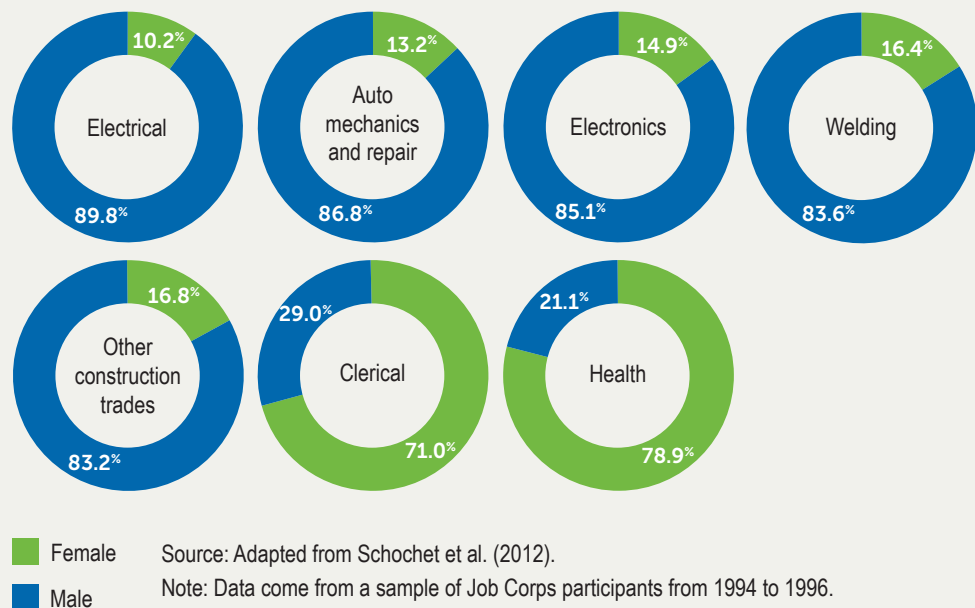
Participants in the TAA program are at a very different place in their career. Many have significant labor market experience, but most are looking for training opportunities for a new type of job. Despite their previous work experience, most women who receive training funded by the program train for jobs traditionally held by women. These decisions may reflect both the preferences of the women and the guidance they receive from case managers. One qualitative study found that frontline staff at American Job Centers are more likely to advise females to

take up vocational training in female-dominated areas because they expect it will be easier for the women to get jobs in these fields.<sup>10</sup>

A challenge that Job Corps program participants might face is that, even at their relatively young ages, they already have notions about which fields are suitable for them. A large share of these disadvantaged youth are coming from single-parent households headed by females. About 42 percent of mothers of female Job Corps participants work in low-paying service jobs, and another 14 percent are office workers. Therefore, Job Corps participants' occupational field choices might have been influenced by these preconceived notions formed at childhood about which jobs are suitable for people of their gender and socioeconomic background.<sup>11</sup>

Adaptations to federally administered training and apprenticeship programs might help make it easier for women to have access to better-paid skilled-trade occupations by increasing their participation in training and apprenticeships in these fields, and might help narrow the gender pay gap. In line with the WIOA Act, DOL recently took steps to overcome barriers women face accessing these occupations. In 2013, it issued new guidance on the responsibility that

**Job Corps** provides education and employment assistance to disadvantaged youth between ages 16 and 24, primarily in a residential setting. During the career preparation period, students determine an appropriate vocational training program, with the assistance of center staff. The Job Corps centers try to match students to training programs based on a formal assessment of their interests, aptitudes, and values, as well as local employer demand.



**Figure 3. Gender breakdown of Job Corps participants, by vocational training field**

employers (with 50 or more employees) have to provide accommodations for nursing mothers on the job site. In 2016, DOL released \$54 million in grants to help low- and middle-skilled parents' access to affordable and quality child care while attending training programs. In 2017, as part of The Women in Apprenticeship and Nontraditional Occupations grant program, the Women's Bureau awarded a total of about \$1.5 million to four community-based organizations in Maine, Missouri, Montana, and West Virginia to expand the participation of women in apprenticeships and nontraditional occupations. These grants promote having training and child care activities in the same

location, unconventional training delivery times and locations, and a flexible approach related to scheduling and child care needs. In the same year, DOL also awarded four contracts geared toward attracting more women and other underrepresented groups into apprenticeship programs. Through ApprenticeshipUSA, DOL is investing in strategies that focus on building pathways to apprenticeship, expanding recruiting and other strategies for attracting diverse participants, and innovating to promote greater access to apprenticeships for traditionally underrepresented groups, including women. Evidence-based research should determine the effectiveness of these initiatives.

### Ideas for recruiting and retaining women in nontraditional jobs

1	Recruiting women for training and apprenticeship programs	<ul style="list-style-type: none"> <li>• Set targets for the number of women participants expected to enroll in training and apprenticeship programs.</li> <li>• Increase the use of general outreach strategies, such as advertisements in newspapers, the internet, and social media, to supplement recruiting through social networks.</li> <li>• Use advertisements that have gender-neutral language and images of real women in skilled trades, to encourage women applicants.</li> </ul>
2	Skill assessment and awareness	<ul style="list-style-type: none"> <li>• Adopt gender-neutral skill testing to identify transferable skills that women can bring to skilled-trade occupations.</li> <li>• Use informative material to tackle women's perceptions of their inability to perform male-dominated jobs.</li> <li>• Offer informative sessions that provide women with knowledge about the actual requirements of a specific trade and familiarity with tools used in skilled trades.</li> </ul>
3	Field choice	<ul style="list-style-type: none"> <li>• Educate women, especially those without work experience, about the pay in different types of jobs and the income necessary to sustain a family (especially as a single mother).</li> <li>• Encourage participants to explore occupational information on at least one nontraditional occupation for their gender.</li> <li>• Offer subsidies to individuals for training in nontraditional fields.</li> </ul>
4	Retaining women in training and apprenticeships	<ul style="list-style-type: none"> <li>• When possible, offer training programs with a flexible schedule to allow trainees with family care responsibilities to participate.</li> <li>• Help apprentices find affordable child care during their apprenticeship/training by offering child care vouchers.</li> <li>• Help training providers and sponsors educate their staff about gender stereotypes and hidden biases.</li> <li>• Provide mentorship to women in male-dominated fields.</li> </ul>
5	Placing women in nontraditional jobs	<ul style="list-style-type: none"> <li>• Inform employers in male-dominated fields about benefits of having more women workers, such as improved workplace health and safety.</li> <li>• In job advertisements, display images of real female bosses and company owners as potential employers.</li> <li>• Help employers create policies to prevent harassment and discrimination at worksites.</li> <li>• Help employers enforce more monitoring of adherence to existing anti-discrimination policies.</li> </ul>



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## ENDNOTES

- <sup>1</sup> U.S. Department of Labor, Women's Bureau. Equal Pay Infographic. Washington, DC: DOL, 2017. Available at: [https://www.dol.gov/wb/images/EqualPay\\_infographic.pdf](https://www.dol.gov/wb/images/EqualPay_infographic.pdf). Accessed August 1, 2017.
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