Bridging the Middle-Skills Gap

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Kathryn Peltier Campbell
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Connecting a Diverse Workforce to Economic Opportunity Through Certificates and Associate's Degrees

2025

Executive Summary

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GEORGETOWN UNIVERSITY
McCourt School of Public Policy
CENTER ON EDUCATION AND THE WORKFORCE

Middle-skills workers—those with certificates and associate's degrees—are crucial to our nation's communities and economy. Yet, despite their importance, these workers have relatively limited access to high-paying work: Just one in four early-career workers with a middle-skills credential earns more than $55,000 annually. Although opportunity for early-career middle-skills workers is limited, certain occupations hold economic promise. These include 107 occupations, concentrated within five occupational groups, in which more than half of early-career workers with a middle-skills credential earn more than $55,000 per year.[1] In four of these five occupational groups, the production of middle-skills credentials that offer pathways to high-paying occupations for early-career workers is expected to fall substantially short of demand until at least 2032.

To fill the shortages of credentials that offer pathways to high-paying middle-skills occupations, credential providers would need to grant an additional 712,000 certificates and associate's degrees annually through 2032.[2] Based on the demand for workers in both

1 Dollar amounts in this report are in 2023 dollars. For a complete list of high-paying occupations for early-career workers with middle-skills credentials, see Appendix B of the full report at cew.georgetown.edu/bridging-middle-skills-gap.

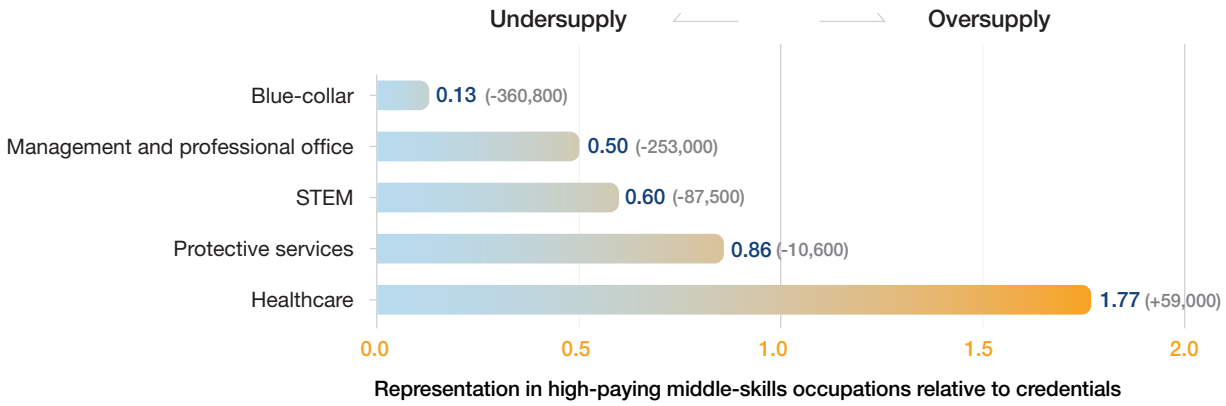
2 The number of additional credentials required annually assumes that each aligned credential granted represents one worker available to fill a job opening. Our analysis of labor-market alignment takes into account total labor-market demand for credentials that align with high-paying occupations, which includes a portion of demand in lower-paying occupations that also align with these credentials. For more detail on how these shortages were calculated, see Appendix A of the full report at cew.georgetown.edu/bridging-middle-skills-gap.

the high-paying and lower-paying occupations that align with these credentials, we expect that about 50 percent of individuals who earn these credentials would find jobs in lower-paying occupations, although workers in these aligned lower-paying occupations still outearn workers in occupations that don't align with these credentials.[3] Thus, the projected credential shortages present clear opportunities for workers seeking a foothold in the labor market, as well as a challenge for credential providers seeking to scale up to meet employer demand.

Across the five occupational groups, the projected annual credential shortages include 360,800 middle-skills credentials aligned with high-paying blue-collar occupations; 253,000 credentials aligned with high-paying management and professional office occupations; 87,500 credentials aligned with high-paying science, technology, engineering, and mathematics (STEM) occupations; and 10,600 credentials aligned with high-paying protective services occupations. Healthcare, the fifth high-paying occupational group for early-career middle-skills workers, does not currently face the same shortfall of certificates and associate's degrees, but occupations in this group could offer more economic opportunity for middle-skills workers through better connectivity to bachelor's degrees.

Figure 1 shows the number of anticipated shortages and the relative magnitude of the shortages. We measure the relative magnitude using a credential-to-jobs ratio by which values below one indicate a shortage in credential production, values above one indicate a surplus in credential production, and values equal to one indicate perfect alignment between credential production and future occupational demand.[4]

Figure 1. High-paying middle-skills blue-collar occupations will face the largest annual credential shortages through 2032.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Labor, Employment Projections, 2023; the US Census Bureau, American Community Survey (ACS), 2010–22; and the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019–21.

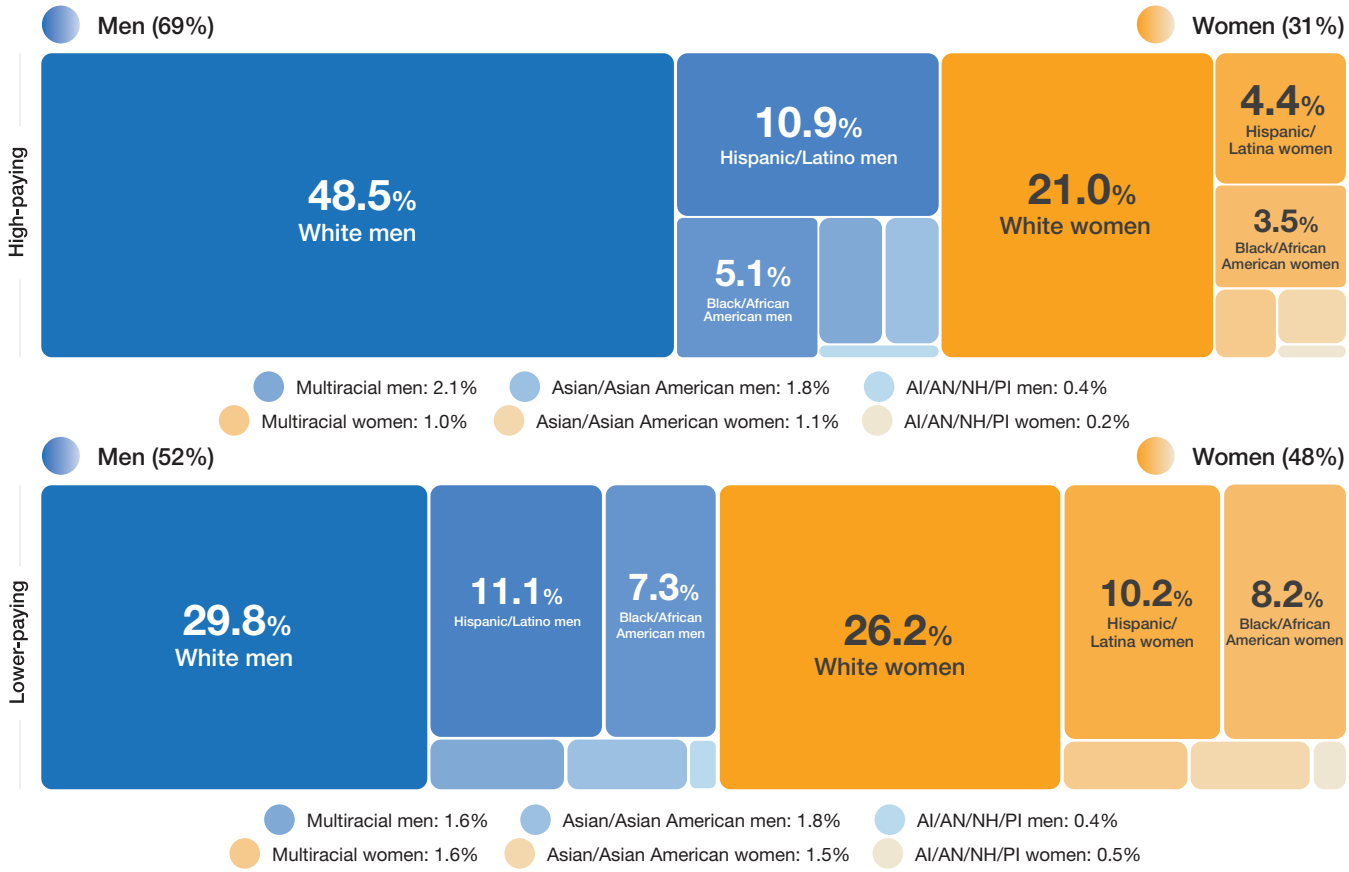
Note: STEM = science, technology, engineering, and mathematics. The credentials-to-jobs ratio compares the number of credentials produced that align with high-paying middle-skills occupations against the projected annual number of job openings available in all occupations for workers with those credentials through 2032. Ratio values below one indicate a shortage in credential production, values above one indicate a surplus in credential production, and values equal to one indicate perfect alignment between credential production and future occupational demand. Values in parentheses indicate the number of credentials oversupplied or undersupplied on an annual basis through 2032.

3 Median earnings for early-career middle-skills workers in aligned lower-paying occupations are $43,600, compared with median earnings of $31,800 for early-career middle-skills workers in occupations that don't align with these credentials. Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2016–19 and 2021.

4 Although we do not anticipate credential shortages at the middle-skills level in healthcare occupations, we do expect shortages in other areas of healthcare (for example, lower-paying occupations and occupations requiring a bachelor's degree or higher). Health Resources and Services Administration, "Health Workforce Projections," 2024.

While these credential shortages are sources of potential opportunity, current employment reflects economic inequality. Overall, women and workers from historically marginalized racial/ethnic groups account for a much smaller share of those employed in high-paying occupations than in lower-paying occupations (Figure 2). Credential shortages present an opportunity to diversify these high-paying middle-skills occupations and strengthen the American economy by drawing qualified workers from the widest talent pool possible.

Figure 2. White men account for nearly half of those employed in high-paying middle-skills occupations.



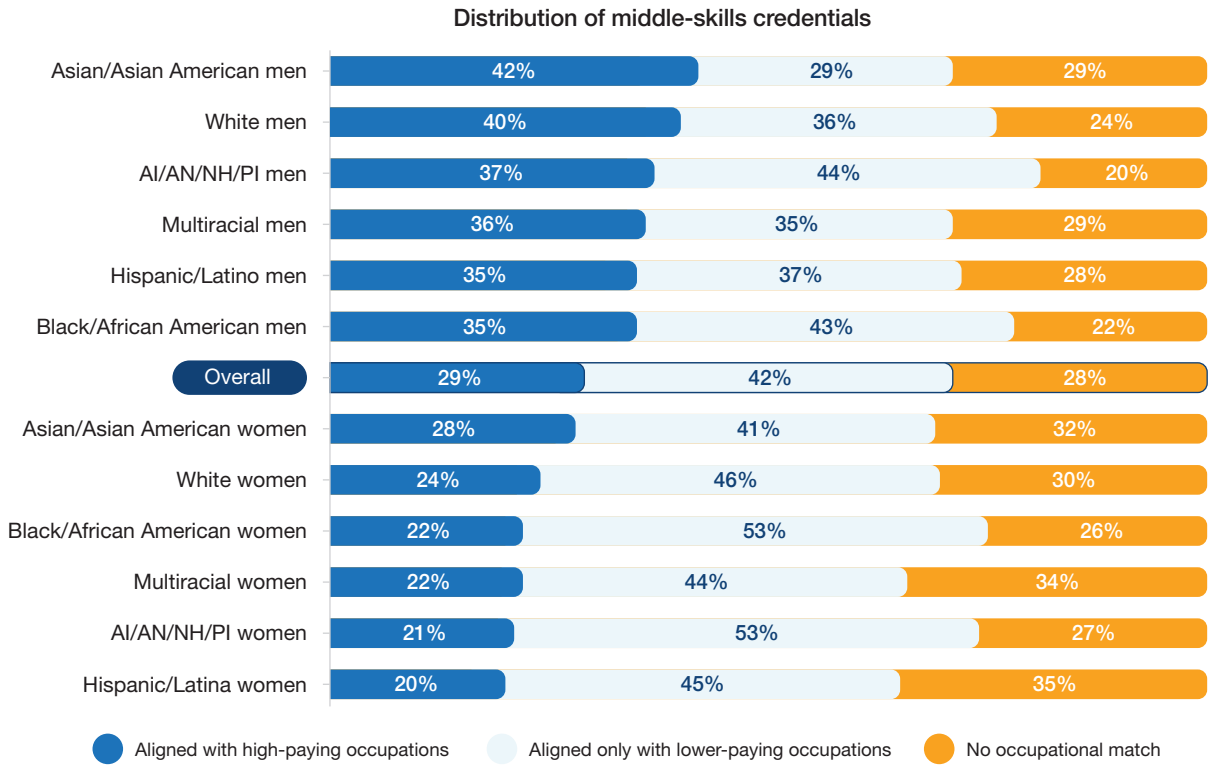
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2016–19, 2021.

Note: AI/AN/NH/PI = American Indian/Alaska Native/Native Hawaiian/Pacific Islander. Values may not sum to 100 percent due to rounding. Analysis is limited to early-career workers (ages 18–35) who reported working at least 10 hours per week and at least 14 weeks in the previous year.

To address the credential shortages—and to open up high-paying middle-skills occupations to a broader talent pool and a more representative cross-section of the US population—educators, policymakers, and employers must remove the barriers that exist at multiple junctures on the pathway from school to work. While the costs associated with attaining middle-skills credentials are relatively low—as these credentials require just a few years of additional investment in postsecondary education and training—too few people are seizing the opportunity to earn these credentials. More needs to be done to boost the pursuit and attainment of credentials that align with high-paying middle-skills occupations and to smooth the transition from school to employment.

At its core, the credential shortages problem represents a disconnect between people and opportunity. To bridge the gap, more women and individuals from underrepresented racial/ethnic groups will need to pursue and complete middle-skills credentials that offer a pathway to high-paying occupations. Currently, among those who earn a middle-skills credential, men in all racial/ethnic groups are more likely than their female counterparts to earn their credential in a program aligned with a high-paying middle-skills occupation (Figure 3). Asian/Asian American and white men are the most likely of all groups to earn a middle-skills credential that offers a pathway to high-paying middle-skills occupations, while American Indian/Alaska Native/Native Hawaiian/Pacific Islander (AI/AN/NH/PI) and Hispanic/Latina women are the least likely to earn such a credential.

Figure 3. Asian/Asian American men are the most likely to earn a middle-skills credential that aligns with a high-paying occupation, while Hispanic/Latina women are the least likely to earn such a credential.

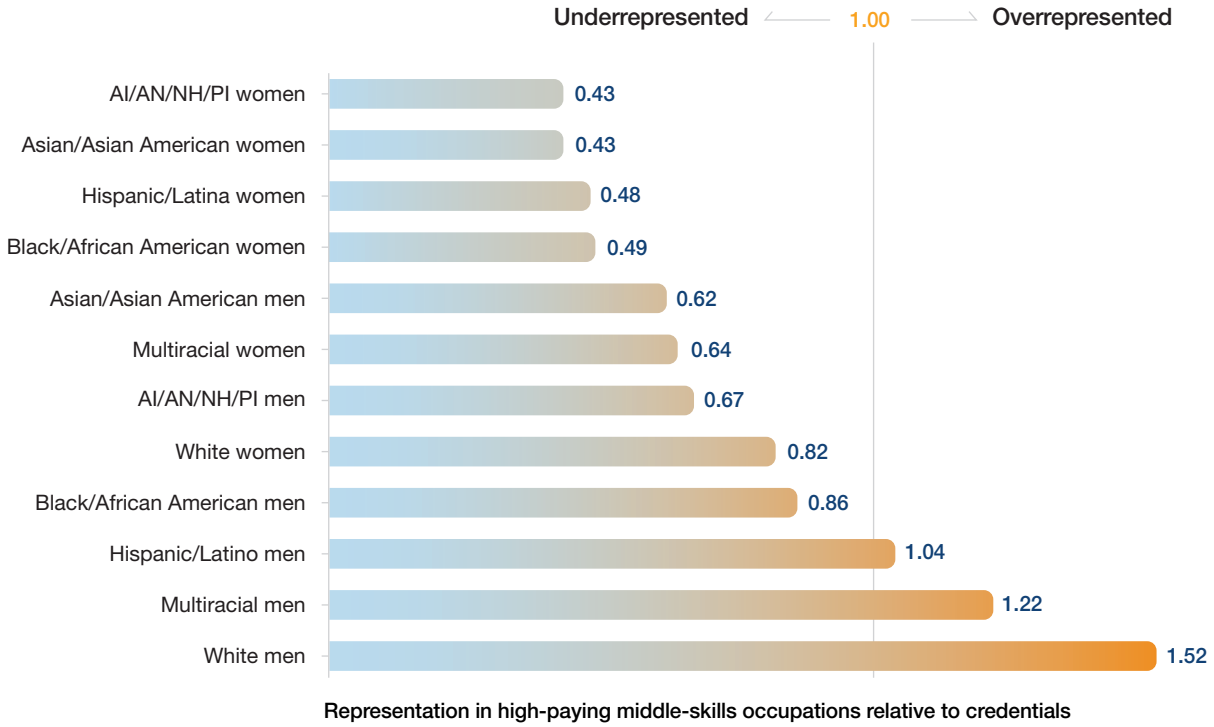


Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Labor, Employment Projections, 2023; the US Census Bureau, American Community Survey (ACS), 2010–22; and the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019–21.

Note: AI/AN/NH/PI = American Indian/Alaska Native/Native Hawaiian/Pacific Islander. Values may not sum to 100 percent due to rounding.

Eliminating disparities by race/ethnicity and gender in credential attainment by program of study will not be enough on its own to eliminate the representation gaps in high-paying middle-skills occupations because a credential alone is not a guarantee of a high-paying job. In fact, representation in high-paying middle-skills occupations varies substantially by race/ethnicity and gender, with several groups severely over- or underrepresented relative to the credentials they earn. More specifically, white men, multiracial men,[5] and Hispanic/Latino men are overrepresented in high-paying middle-skills occupations relative to what we would expect based on the credentials they earn. AI/AN/NH/PI men and women, Asian/Asian American men and women, Black/African American men and women, Hispanic/Latina women, and white women are underrepresented in high-paying middle-skills occupations based on the same metric (Figure 4).

Figure 4. White, multiracial, and Hispanic/Latino men are overrepresented in high-paying middle-skills occupations relative to their credentials.



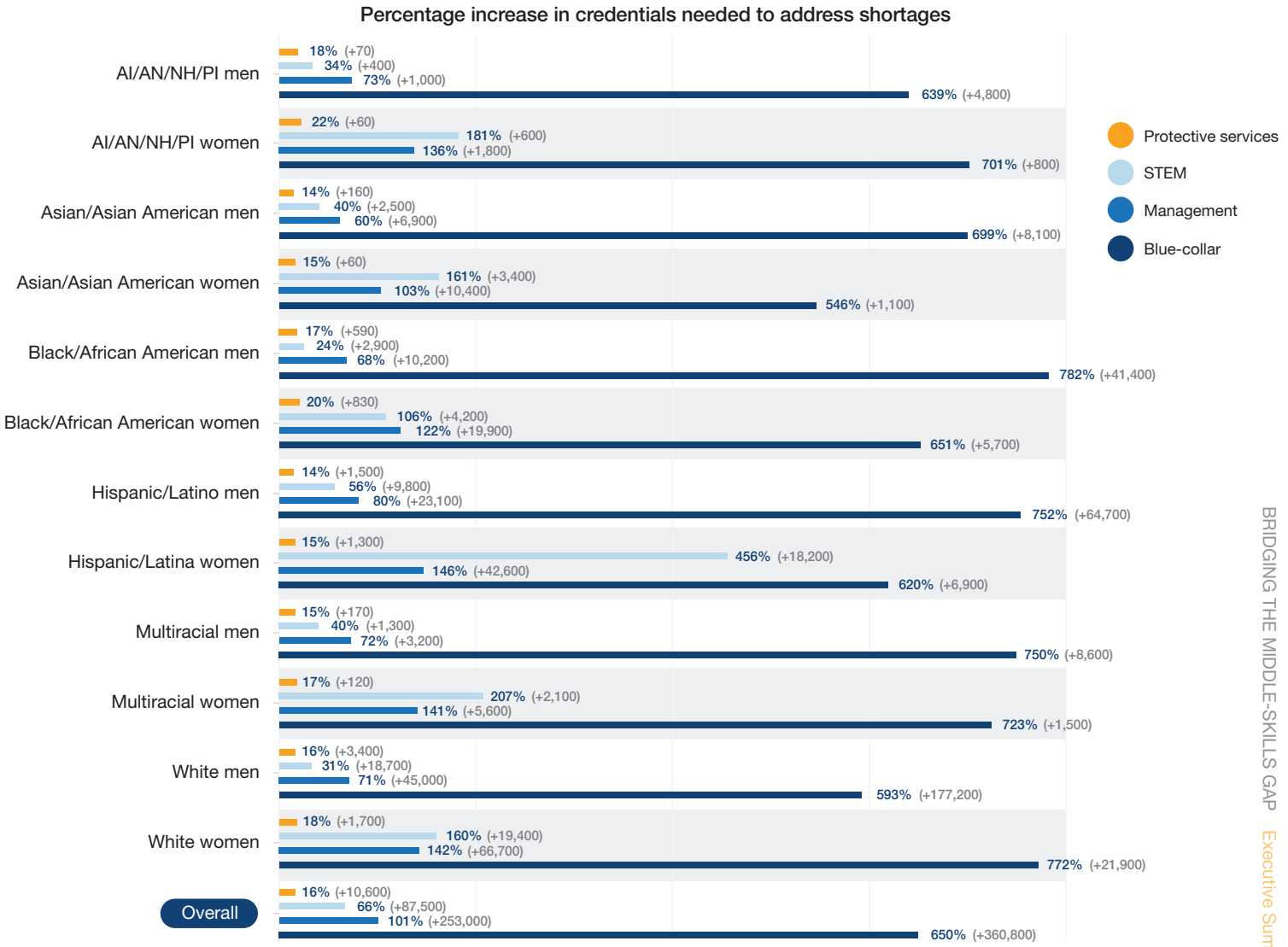
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Labor, Employment Projections, 2023; the US Census Bureau, American Community Survey (ACS), 2010–22; and the US Department of Education, Integrated Postsecondary Education Data System (IPEDS), 2019–21.

Note: AI/AN/NH/PI = American Indian/Alaska Native/Native Hawaiian/Pacific Islander. Representation ratios are calculated by dividing each race/ethnicity-by-gender group's share of the actual workforce distribution by their share of the expected distribution. The expected distribution is an estimate of what the race/ethnicity-by-gender distribution in high-paying occupations would be based on (1) the race/ethnicity-by-gender distribution among those who earn credentials that align with these occupations, and (2) the relative demand in high-paying versus lower-paying occupations for the aligned credentials that each race/ethnicity-by-gender group completes. See Appendix A in the main report for a more detailed description of this calculation. Actual workforce distribution analysis is limited to early-career workers (ages 18–35) who reported working at least 10 hours per week and at least 14 weeks in the previous year.

5 Multiracial men are very likely to have white heritage. Among multiracial men ages 18–35 with a middle-skills credential, 80 percent are white and one other race; an additional 10 percent are white and more than one other race. Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2016–19 and 2021.

Nonetheless, projected shortages present substantial opportunity for men and women of all races/ethnicities to earn credentials that align with high-paying middle-skills jobs. Filling credential shortages equitably would require an increase of more than 500 percent in credentials aligned with high-paying blue-collar middle-skills occupations among men and women of all racial/ethnic backgrounds, along with substantial increases in credentials aligned with STEM, management and professional office, and protective services occupations (Figure 5). These numbers indicate that there is considerable room for growth in creating equitable access to opportunity on the middle-skills pathway.

Figure 5. Projected shortages present substantial opportunity for men and women of all races/ethnicities to earn credentials that align with high-paying middle-skills jobs.



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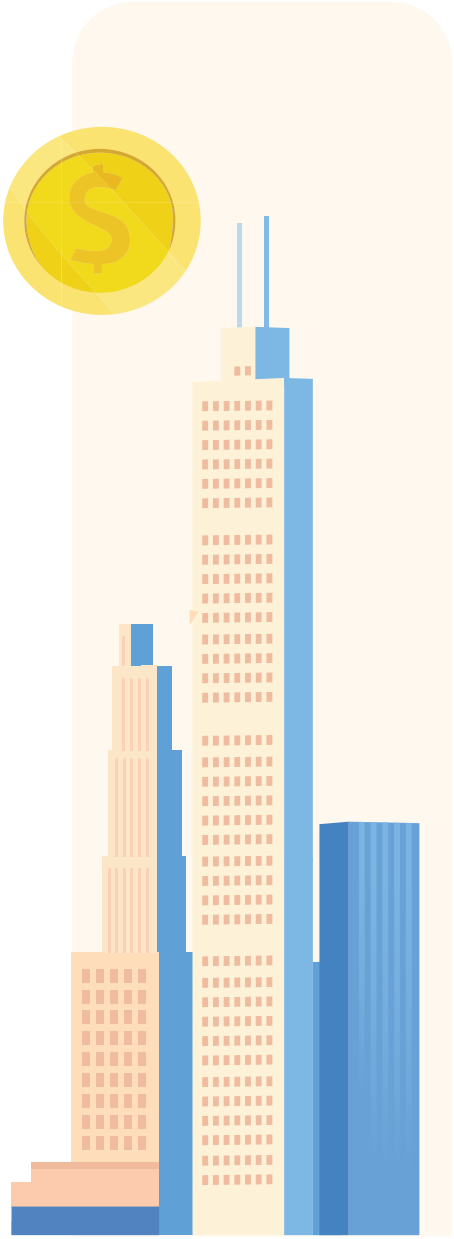
Note: AI/AN/NH/PI = American Indian/Alaska Native/Native Hawaiian/Pacific Islander. STEM = science, technology, engineering, and mathematics. Values in parentheses indicate the number of additional credentials needed on an annual basis through 2032. See Appendix E in the main report for tables.

Clearing the pathway to opportunity in these occupations will require businesses, the K–12 system, postsecondary institutions, and government to collectively address long-standing disparities in credential attainment and the labor market. Changes in policy and practice are needed to accomplish these goals. These changes should include the following:

- Improve the scope of and the capacity to collect labor-market data, and make these data more readily available to students to help inform their decisions about which credentials to pursue.
- Expose students to a variety of subjects in middle and high school, and foster a welcoming environment for historically underrepresented groups in high-paying middle-skills fields.
- Provide scaffolding to support college completion, including through investments in comprehensive counseling and support services.
- Provide work-based learning opportunities, and build partnerships with employers.
- Integrate career guidance with academic advising and other student support services, and provide ample opportunities for students to connect with employers.
- Address bias in hiring and promotion, and ensure a welcoming workplace for underrepresented groups.

Filling shortages in high-paying middle-skills occupations in a way that creates access to opportunity for men and women of all races/ethnicities—especially those in historically marginalized groups—is good for everyone: workers, employers, the American economy, and society at large. High-paying middle-skills jobs should draw from the largest talent pool possible rather than opening yet another gap between the haves and the have-nots.

For the full report, visit cew.georgetown.edu/bridging-middle-skills-gap.



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