

Do Program Offerings Vary by Participant Traits? Insights From a Systematic Review

Executive Summary

Sectoral training programs are occupational training programs designed to prepare participants for careers in growing industry sectors, such as information technology, health care, and manufacturing. Several studies suggest that sectoral training programs do help jobseekers and workers improve their educational, employment, and earnings outcomes (J-Pal Evidence Review, 2022; Katz et al., 2022; Peck et al., 2021). A 2021 meta-analysis of career pathways evaluations (Peck et al., 2021), a specific type of sectoral training program, explored

which features of career pathways programs might be contributing to positive outcomes. These features, often referred to as program components, make up participants' experience in the programs and can relate to program effectiveness. Given their central role, we take a closer look at the program components of several sectoral training program evaluations. In this brief, we investigate which components sectoral training programs commonly offer, and, crucially, whether different groups of participants are more likely to participate in programs with certain components.

PROPEL Center at AIR

The [PROPEL Center at AIR](#) advances innovations in workforce development and education through community-centered partnerships. Together, we strengthen and amplify solutions to broaden the reach of what works in improving employment and economic opportunity for all.

The PROPEL Center at AIR conducted a descriptive systematic review. We investigated:

- **What were the common offerings of the 37 sectoral training programs in our sample?** Health care training was the most popular sector, provided by half of the sectoral training programs included in the review. The most frequently offered program components were job search assistance and job placement. Career and academic advising were the predominant wraparound services, followed by transportation assistance, tuition assistance, and childcare services.
- **Was variation in program offerings related to the racial composition of the participants?** Studies varied in the racial composition of their samples. This variation is likely the result of participant self-selection, program availability, and recruitment efforts by the program implementers. However, there was no observed relationship between program offerings and racial composition. Programs were similarly likely to offer particular components and wraparound services regardless of the racial composition of their samples.

- **Was variation in program offerings related to participant sex?** Sectoral training programs that enrolled a high proportion of female participants (70% or more) provided almost all of the identified program components and provided wraparound services at higher rates than programs that enrolled a high proportion of male participants (70% or more). We also found that 93% of programs with mostly female participants provided training in the health care sector, whereas none of the programs with mostly male participants provided training in that sector.

HOW DID WE IDENTIFY STUDIES?

We identified evaluations of sectoral training programs that were potentially eligible for our review by

- searching for evaluations of promising sectoral training programs identified in consultation with workforce development experts,
- including the [Pathways for Advancing Careers and Education \(PACE\) evaluations](#),
- including programs studied via the U.S. Department of Labor's Trade Adjustment Assistance Community College and Career Training (TAACCT) grant program, and
- screening all references of studies included in the review and including those that were relevant.

We screened the resulting reports for eligibility, ensuring they met the scope and methodological requirements of our project. Eligible studies met the following criteria:

- used experimental or quasi-experimental methods,
- examined employment and earning outcomes, and
- were free of observable confounds and therefore could credibly provide information on efficacy.

We screened 241 potentially eligible reports, of which 37 studies met our eligibility requirements. The Appendix includes the full list of the studies included in the review.

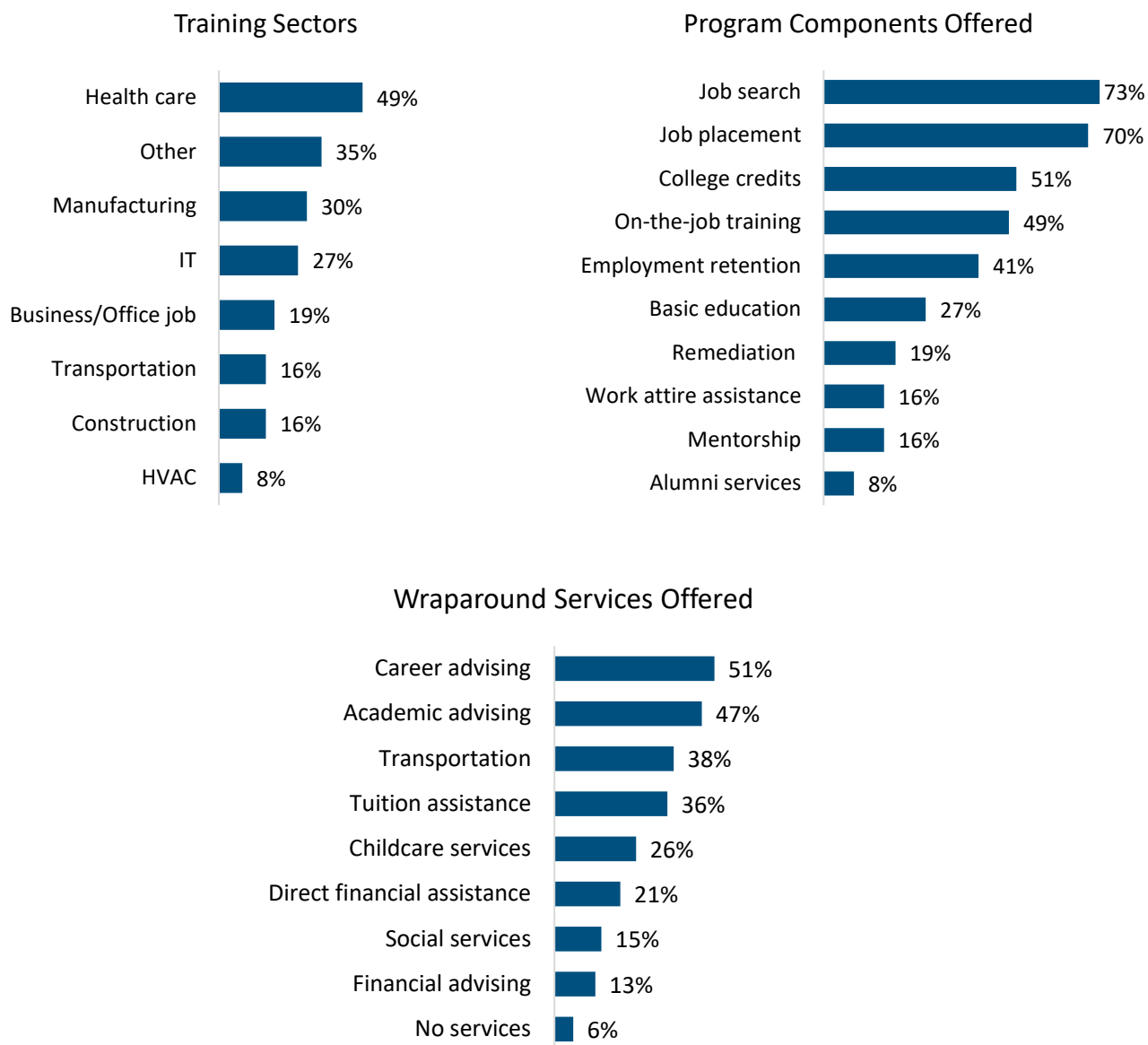
Finding 1: Sectoral training programs offered a variety of program components and services to participants.

Each sectoral training program offered a unique constellation of key components and wraparound services designed to train participants for careers in a specific sector. These components and services determine the experiences and resources participants have access to as a part of their training. Our goal was to document the common elements and examine variation across sectoral training programs in our sample. Findings regarding program offerings are based on information gathered from evaluation reports. If programs offered services that were not listed in their report, the programs were not coded as having provided them.

Exhibit 1 shows the distribution of sectors, program components, and wraparound services for the programs included in this review. Among the studies included in our review, the most common sector programs trained for was health care, followed by manufacturing and information technology. The

“other” category includes more specialized industries such as refrigeration, the shale oil and gas industry, and the electrical industry.

Exhibit 1. Training Sectors, Program Components, and Wraparound Services of Included Sectoral Programs



When examining the type of program components offered to participants, we see that most programs included in this review offered job search and job placement assistance as key components. Just under half of the programs offered on-the-job training. These components are critical to sectoral training programs that aim to help participants transition into new careers, recognizing that training alone is

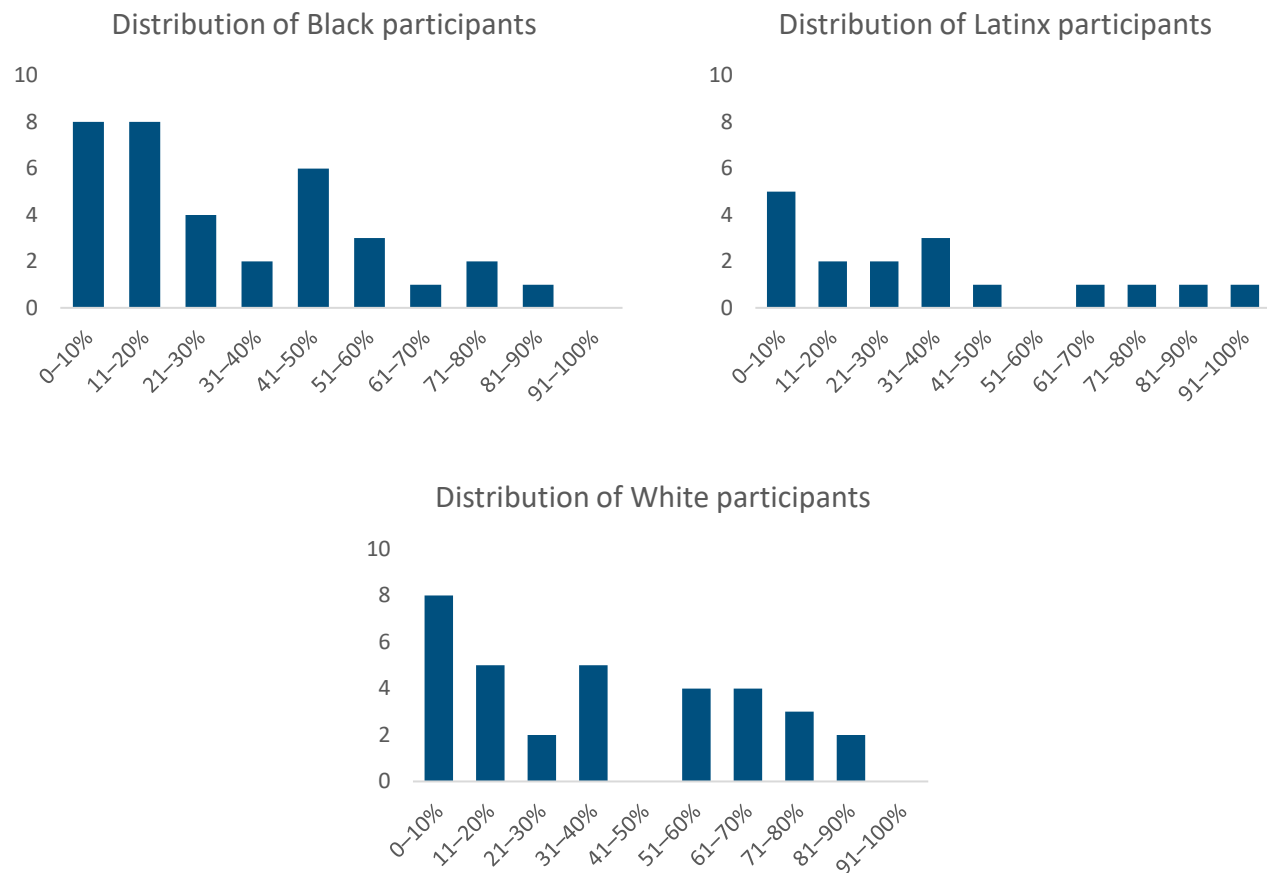
inadequate to ensure participant success. Among the sectoral training programs included in this review, around half offered participants the opportunity to earn college credits. This may be related to the fact that 78% of these programs partnered with community colleges in some way. Less common program components included remediation, work attire assistance, mentorship, and alumni services—all of which are key components for less than 20% of the programs included in our review.

Sectoral training programs also often offer an array of wraparound services, which support participants' persistence within the program and ultimate success. Almost all sectoral training programs included in this review (92%) offered some type of wraparound service. The most common services that programs offer were career and academic advising (51% and 47%, respectively) to further support the main goals of training and obtaining a job that will ultimately lead to a career. Just under half of the programs offered transportation and tuition, both of which could affect participants' likelihood of persisting in the programs. The least common wraparound services were social services and financial advising, both provided by less than 20% of the sectoral training programs included in this review.

Finding 2: Program offerings did not vary by sample racial composition.

Next, we explored the relationship between participants' racial demographics and program components and services. Exhibit 2 shows the study-level distribution of participant race. For example, as shown in the first bar graph, there were 8 studies that had between 0-10% participants that were Black. We report the distributions of Black, Latinx, and White participants, as those were the most reported racial categories among studies included in the review. Overall, we did not observe clear patterns between participant racial demographics and program offerings. For instance, programs with mostly White participants offered similar program components and services to programs with mostly non-White participants. Though the samples in our investigation vary in racial composition, the variation does not correspond to a difference in program offerings.

Exhibit 2. Study-level Distribution of Participants Race

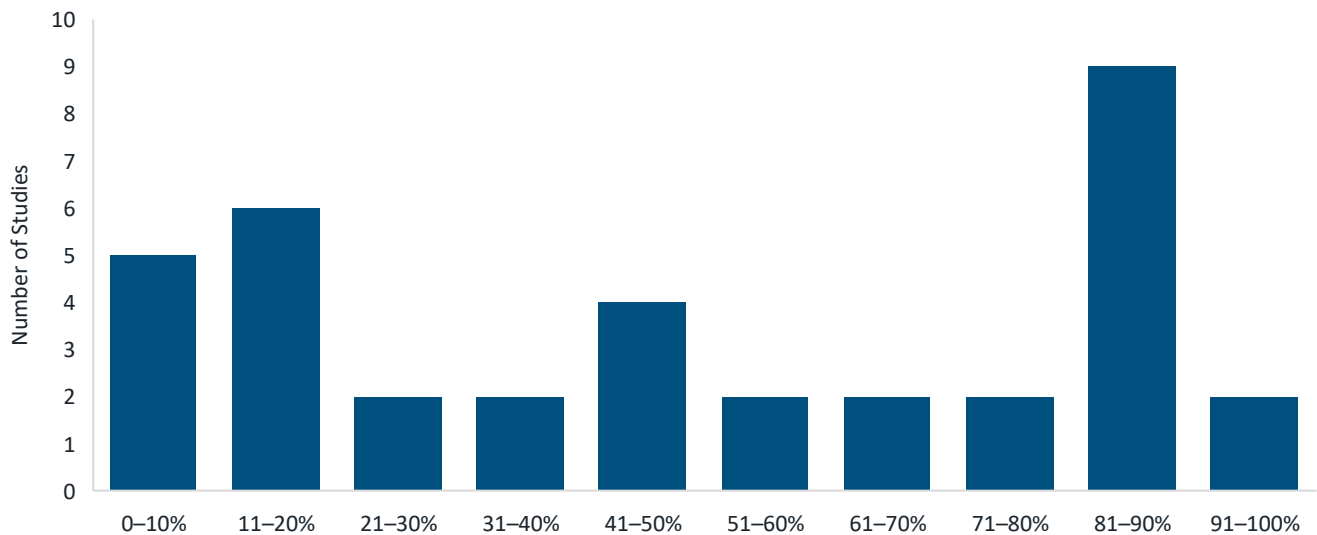


Note. Studies reported racial demographics of participants at different rates: 35 studies reported the percentage of Black participants, 17 reported the percentage of Latinx participants, and 33 reported the percentage of White participants.

Finding 3: Program offerings did vary between programs that enrolled mostly female participants and programs that enrolled mostly male participants.

Sex can be an important determinant of an individual’s labor market outcomes influencing the obstacles they face, job opportunities, and future earnings. We examined the distribution of participant sex across studies and found that 24 of the 37 programs enrolled participants who were mostly male or mostly female, despite the fact that none of the programs in our sample specifically targeted one sex or the other. Exhibit 3 shows the distribution of participant sex in the studies included in our review.

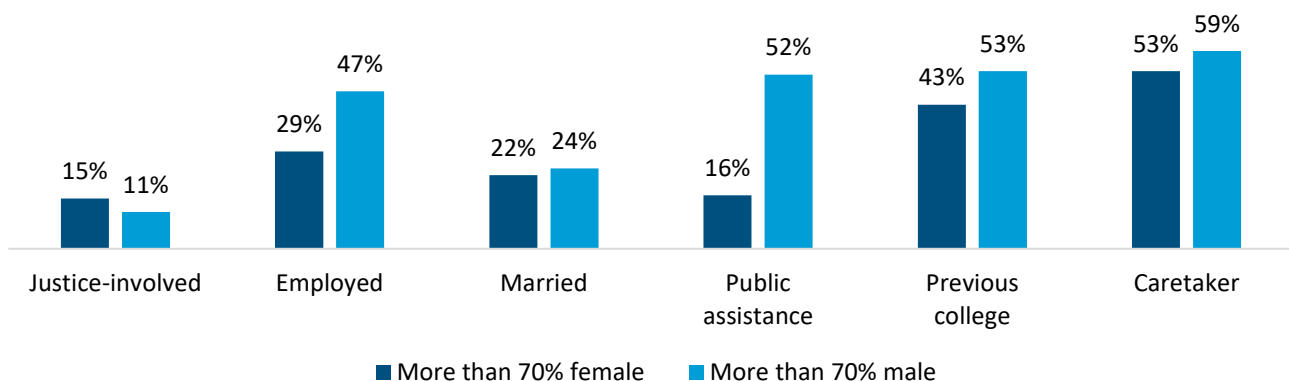
Exhibit 3. Distribution of Percent Female Participants



Next, we explored whether the programs that enrolled mostly male participants differed from the programs that enrolled mostly female participants. We compared programs with samples that were at least 70% male ($k = 10$) with programs with samples that were at least 70% female ($k = 14$).

As shown in Exhibit 4, programs with mostly female participants had more participants, overall, who were employed at baseline, were on public assistance, had some college experience, and were caretakers compared to programs that enrolled mostly males. Programs with mostly male and with mostly female participants had similar proportions of married participants.

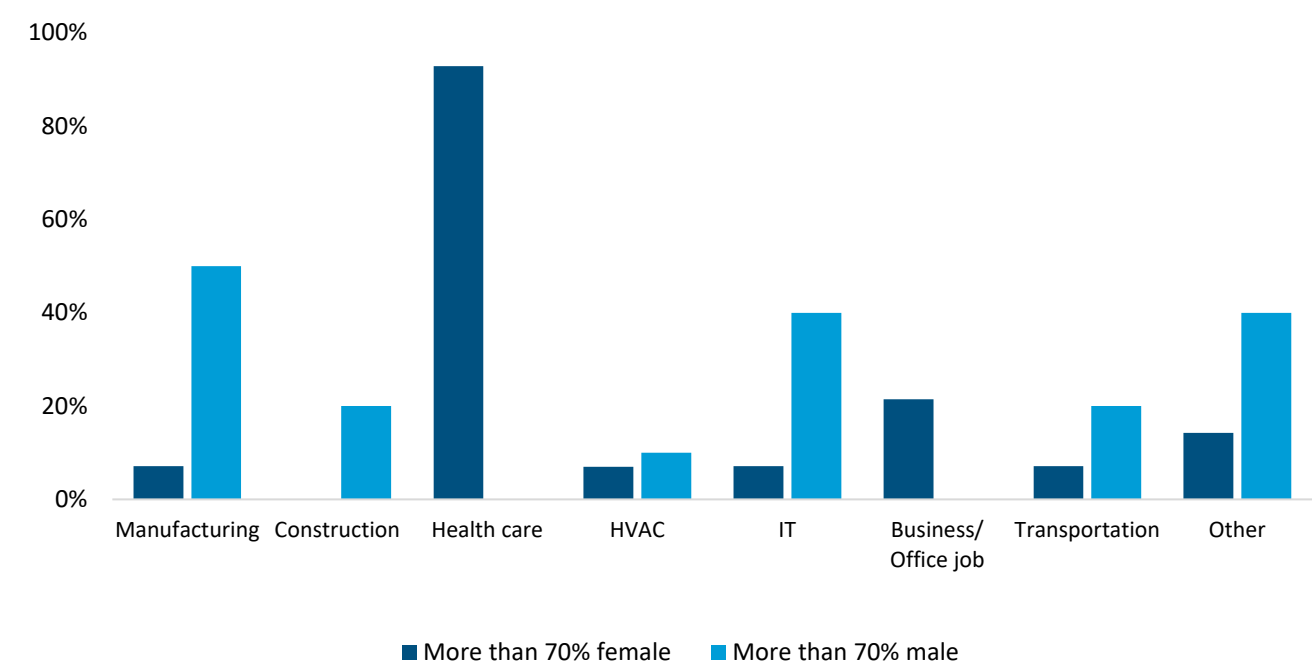
Exhibit 4. Participant Characteristics in Programs that Enrolled Mostly Males or Females



Note. Of the 24 studies included in this figure, 10 studies provided data on justice involvement, 15 on employment at baseline, 7 on marital status, 14 on public assistance, 15 on previous college experience, and 6 on caretaker status.

In our review, we found that the programs that enrolled mostly male participants or mostly female participants reflected gendered trends in the labor market. As shown in Exhibit 5, 13 of the 14 programs with mostly female participants provided training in health care. In contrast, none of the programs with mostly male participants provided training in health care. Programs with mostly male participants more often provided training in manufacturing and information technology.

Exhibit 5. Distribution of Sectors of Training in Programs that Enrolled Mostly Males or Females

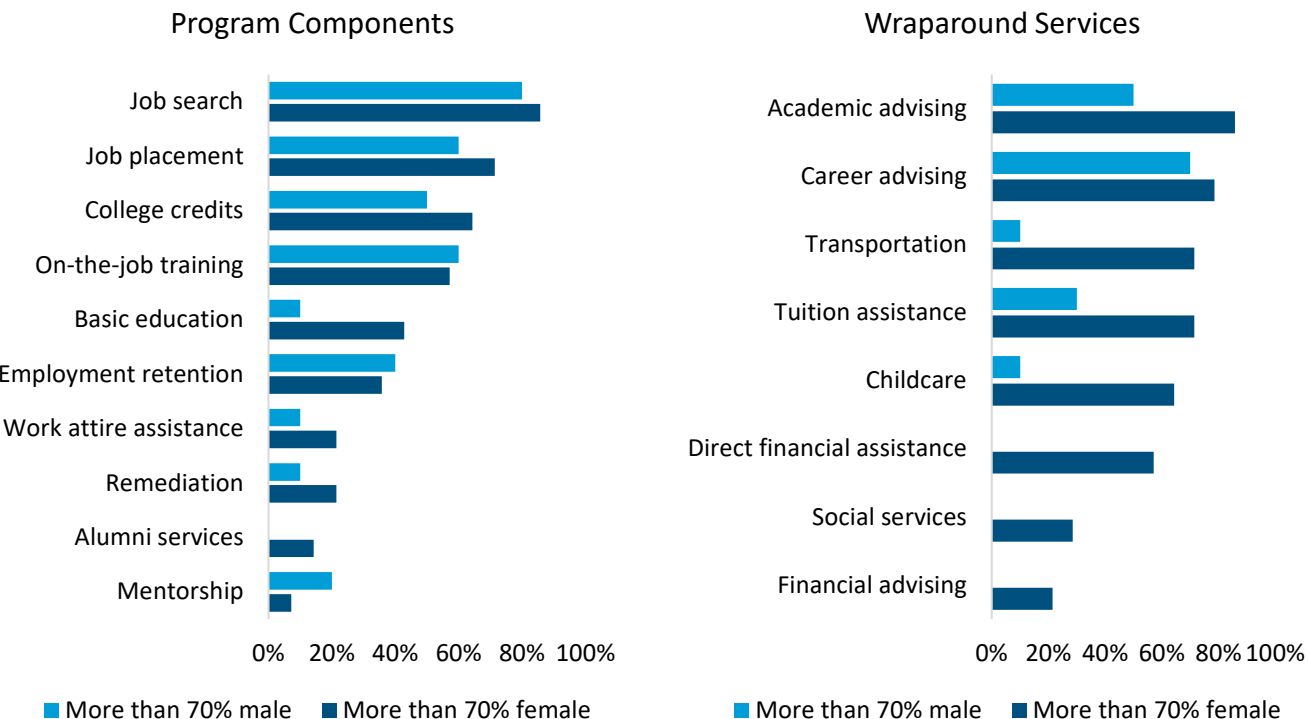


Note. Sectors of training are not mutually exclusive. For example, a program may provide training in both manufacturing and construction. Therefore, percentages will not add up to 100.

Since we saw differences in overall participant characteristics and sectors when comparing programs that enrolled mostly male participants versus mostly female participants, we also explored if program components or the wraparound services that were offered differed as well. Exhibit 6 presents the differences in program components and wraparound services by predominant participant sex.

Programs that enrolled mostly female participants were more likely than programs that enrolled mostly male participants to provide nearly every program component we identified. Only on-the-job training, employment retention, and mentorship were more likely to be offered by the programs that enrolled mostly male participants. The programs that enrolled mostly female participants were also more likely to offer every wraparound service we identified.

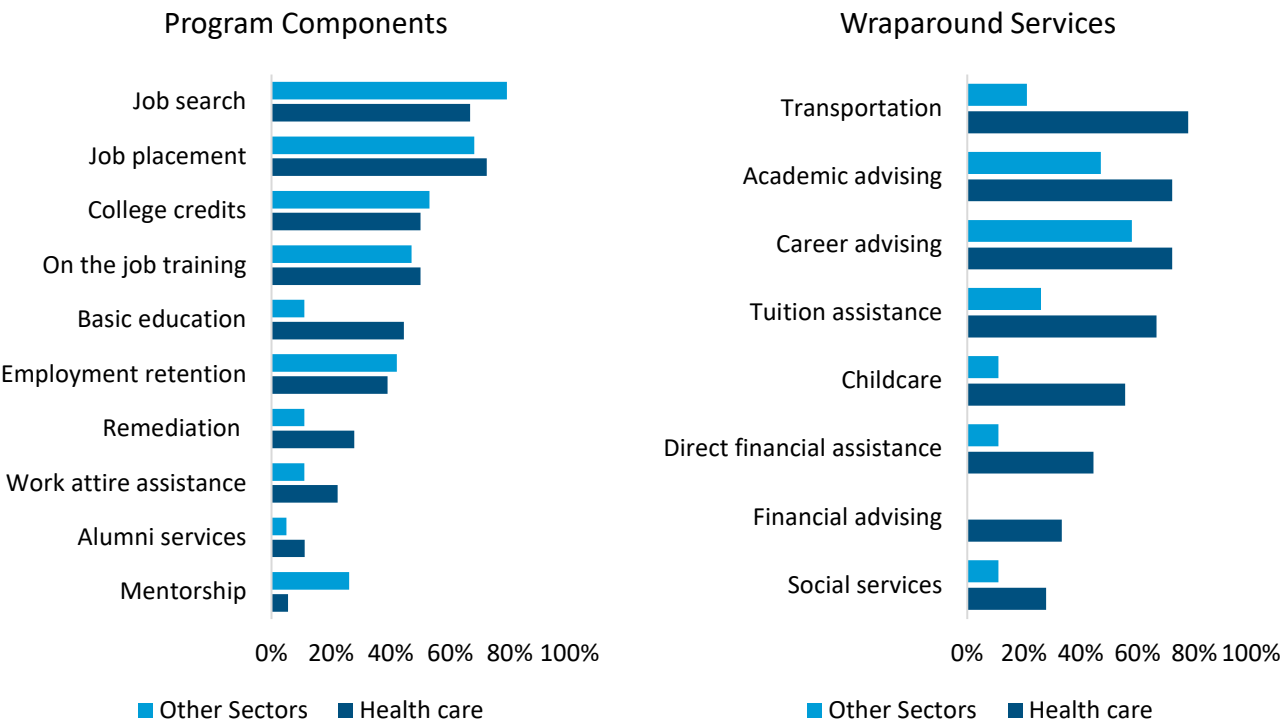
Exhibit 6. Distribution of Program Offerings in Programs that Enrolled Mostly Males or Females



More generally, we observed that programs that enrolled mostly female participants provided all the wraparound services that we identified and most of the identified program components at higher rates than programs with mostly male participants. These included childcare assistance, transportation assistance, direct financial assistance, and career advising, which are services and supports that male participants would also benefit from in the programs in which they constitute the majority.

Although most health care programs enrolled mostly female participants, not all were. Exhibit 7 shows the frequency of program components and wraparound services for health care programs compared to all other programs in the review. Regarding program components, health care programs and programs in other sectors did not differ widely. However, health care programs tended to provide more comprehensive wraparound services, which was also generally the case for programs that enrolled mostly female participants.

Exhibit 7. Distribution of Program Offerings, by Training Sector



Limitations and Constraints on Generalizability

The goal of this work was to examine equity of access to a set of sectoral training programs. In this and the other two briefs, we attempt to answer questions about equity by descriptively summarizing features of the samples, settings, and programs of the 37 evaluations in our review. As this work is entirely descriptive and largely exploratory, the patterns that emerged should not be generalized to other evaluations, settings, or samples in this field of research. While we do offer some recommendations based on what we observed, we understand that other researchers, program providers, and stakeholders may already have made advances on these fronts. Still, we encourage researchers to consider the questions raised in these briefs when designing and utilizing evaluations of sectoral training programs. Finally, we emphasize that this work does not examine the effectiveness of these programs. To learn more about program effectiveness, see Peck et al. (2021), which quantitatively synthesized many of the programs included in this review.

Summary and Recommendations for Future Work

In this brief, we examined whether the program components and wrap around services offered by sectoral programs included in the review were more frequently offered to certain groups of participants. While we did not see variation by sample racial demographics, we did find that programs that enrolled mostly female participants did offer more wraparound services than those that enrolled mostly male participants. This is likely related to the types of programs that attract gender-imbalanced samples—programs that enrolled mostly female participants were located in the health care sector while programs that enrolled mostly male participants tended to involve manufacturing and information technology. It is unclear whether gender imbalances in these fields are due to participant self-selection or other factors.

Regardless of cause, the sorting of men and women into different fields may have long-term consequences for those individuals and the careers they enter. Not only do women in health care experience lower wage growth than men in health care, but health care occupations tend to experience lower wage growth than occupations overall. By contrast, in the construction industry, workers generally experience higher wage growth than in other occupations (Abt Associates, 2021; Schwartz et al., 2021). Consequently, sectoral training programs could unintentionally be perpetuating gender wage gaps. Understanding how participants choose to enter sectoral training programs would help us to understand why some programs attract more women and some more men. In future research, providing basic information on programs' applicants and participants can help researchers determine if the gender differences in programs by sector result from self-sorting (e.g., from men tending not to apply to health care training programs) or if other factors could be affecting the participant gender makeup.

Our findings show that sectoral training programs reflect the gendered nature of industries in the labor market. If these programs are intended to provide more equitable pathways to high-paying jobs, they will not achieve their goal if people are being sorted into the same fields that contributed to the observed inequity and these programs may be perpetuating existing inequities. Finally, future research could combine findings from our equity review with information on program effectiveness to examine how equity and effectiveness are related in sectoral training programs. This will also allow researchers to examine the link between tailoring programs for specific populations and program effectiveness.

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