

Experiences of America’s Promise Participants During the “COVID-19 Recession”: Examining Gender Differences in Labor Market and Training Program Outcomes

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May 2022

In contrast to other recessions in the past four decades that have disproportionately affected men, the economic downturn precipitated by the COVID-19 pandemic (hereafter the COVID-19 recession) led to larger decreases in employment and earnings for women (Albanesi and Kim 2021). The large gender differences in labor force measures have led some to call the COVID-19 recession a “shecession” due to its disproportionate impact on women (Alon et al. 2021). Potential causes of this disproportionate impact include greater job losses in female-dominated industries and loss of formal child care and caregiving arrangements, among many others (Albanesi and Kim 2021).

In this brief, we examine whether gender differences in outcomes emerged following the onset of the COVID-19 pandemic among a group of people who recently enrolled in training aimed at preparing workers for careers in “middle- to high-skilled” industries and occupations. These people received training through programs funded by America’s Promise grants, with most programs focusing on advanced manufacturing, health care, or information technology. This population is of particular policy relevance given that it represents economically vulnerable people with a demonstrated interest in improving their economic stability through federally funded training programs.

Study background

Chief Evaluation Office
U.S. DEPARTMENT OF LABOR 

This issue brief is part of a study funded by the Chief Evaluation Office within the U.S. Department of Labor (DOL) that explores the implementation and impact of the America’s Promise Job Driven Training grants, which 23 organizations received in 2016. These four-year grants, funded by DOL’s Employment and Training Administration (ETA), support creating and expanding regional partnerships that include workforce development agencies, institutions of higher education, economic development agencies, employers, and community-based organizations and are aimed at preparing workers for careers in “middle- to high-skilled” industries and occupations (U.S. Department of Labor 2016).▲

We analyze the outcomes of America’s Promise participants by gender before and after the onset of the COVID-19 pandemic. Specifically, we examine the following questions:

1. For people who completed training before the onset of the COVID-19 pandemic in the United States, how did gender differences in labor market outcomes evolve with the onset of the pandemic?
 - a. How did employment and earnings outcomes change for women compared to men after the onset of the COVID-19 pandemic
 - b. Did any gender differences in employment and earnings that emerged after the onset of the COVID-19 pandemic vary by race, age, or training industry?
2. For people who enrolled in America’s Promise before the onset of the COVID-19 pandemic in the United States, did we observe differences in training completion by gender for participants who received all services before the onset of the COVID-19 pandemic compared to participants who enrolled in America’s Promise before the pandemic but received services during the pandemic?

- a. How did training completion rates change for women compared to men after the onset of the COVID-19 pandemic?
 - b. Did any gender differences in training completion that emerged after the onset of the COVID-19 pandemic vary by race, age, or training industry?
 - c. Was there a gender difference in average time to training completion?
3. Did we observe differences between in the gender of participants who enrolled in training after the onset of the COVID-19 pandemic and the characteristics of participants who enrolled before the pandemic?

Background

As a result of the onset of COVID-19 pandemic, U.S. employment rates dropped by ten percentage points in March 2020, followed by a gradual recovery that is still ongoing more than a year and a half later (Bureau of Labor Statistics 2021). This employment drop disproportionately affected women, who by April 2020 had experienced a 16 percent drop in employment compared to a 13 percent drop for men. The employment losses have continued to be larger for women than men in each month following the onset of the COVID-19 recession (Stevenson 2021). This sharply contrasts with previous recessions in which the employment losses have been substantially larger for men than women (Albanesi and Kim 2021).

One primary reason that women's experience in the COVID-19 recession differed from previous recessions is that the supply of jobs available for women dropped relative to those available for men. In contrast to previous recessions, the service industry, which employs far more women than men, was among the hardest hit during the COVID-19 recession (Albanesi and Kim 2021). More broadly, women are less likely to work in occupations that are conducive to remote work or are considered to be "critical" (Alon et al. 2020). Consistent with this theory, one-third of the gender differences in employment loss can be explained by accounting for occupation (Albanesi et al. 2021).

Another hypothesis which may explain the larger employment loss among women in the COVID-19 recession is that women may have been more likely to leave the labor force or reduce their working hours. Women are often the primary caregiver for children and elderly relatives and therefore were more likely to feel the impact of school closures and loss of other professional caregiving support (Alon et al. 2020; Lee and Tang 2015). The evidence on the importance of these factors is mixed. Survey evidence, such as a recent Pew survey, shows that mothers are more likely than fathers to report that increased child care responsibilities have interfered with their ability to work (Igielnik 2021). In contrast, comparing job loss for women with and without young children, Furman et al. (2021) estimate that the presence of young children only explains a negligible share of the reduction in women's employment. Similarly, Albanesi et al. (2021) find that women experienced larger employment losses than men regardless of whether they were married or had children, suggesting this is not the primary driver of the gender gap.

There is reason to speculate that the experiences of America's Promise participants in the COVID-19 recession may be different from those of the full population. First, America's Promise participants train for employment in specific industries, such as advanced manufacturing and health care. Second, America's Promise participants, who tend to have below-average incomes, might face differences in caregiving responsibilities. Loss of child care might have affected economically vulnerable workers less because they are more likely to rely on parents or relatives for child care instead of paying for care (Laughlin 2010). Informal child care arrangements may have been less interrupted by COVID-19. Thus, as policymakers and service providers continue to adapt occupational training policies and operations to

meet the needs of economically vulnerable workers seeking career advancement, it is valuable to examine how America’s Promise participants fared during the first year and a half after the onset of the COVID-19 pandemic. This can help policy makers to identify where to target additional supports both now and for future programs.

Data and sample

The America’s Promise grant program was active from January 1, 2017 through December 31, 2021. The analyses in this brief cover all participants who enrolled in any of the 23 America’s Promise programs from July 1, 2017 through March 31, 2021. Since 2017, America’s Promise grants have supported training programs in “middle- to high-skilled” occupations and industries across 28 states.

Our analyses are based on data from two administrative sources describing the characteristics, service receipt, and labor market outcomes of America’s Promise participants. We matched data on participant characteristics and service receipt from the Workforce Integrated Performance System (WIPS) to quarterly employment and earnings data from the National Directory of New Hires (NDNH) (see the technical appendix for more information on the WIPS and NDNH data). Analyses of service receipt are based solely on WIPS data and cover 25,056 America’s Promise participants enrolled during between July 1, 2017 and June 30, 2021 across all 23 grantees. To focus on participants who had completed training before March 2020, analyses of employment and earnings data rely only on a sample of 14,373 participants who enrolled in America’s Promise between July 1, 2017 and June 30, 2019. We were able to match 97 percent of America’s Promise participants in this period to NDNH data by Social Security Number. This allows us to observe all income reported to UI agencies during the study period, and therefore does not include all wages, for example some self-employment earnings and unreported wages. Due to incomplete reporting of data at the time of data collection for this study, participants working in Colorado, Indiana, Montana and North Carolina were excluded from the analysis of employment and earnings outcomes. The accompanying technical appendix document describes the data sources and methods in more detail, including additional details on the limitations of these data sources.

The America’s Promise program participants in our sample are diverse in terms of their demographic backgrounds and employment and training needs (Exhibit 1). Half of the participants included in this study identified as female. Participants are also relatively young, with about 30 percent of participants ages 18 to 24, 33 percent ages 25 to 34, 18 percent ages 35 to 44, and 20 percent age 45 or older. Fifteen percent of participants are Hispanic; 48 percent of participants are White, non-Hispanic; 28 percent are Black, non-Hispanic; and 9 percent are of another racial or ethnic background. America’s Promise training programs were designed to focus on a select set of in-demand industries with defined career pathways. Consistent with this, 36 percent of America’s Promise participants trained for occupations in advanced manufacturing, 32 percent trained for health care occupations, and 21 percent trained for occupations in information technology.

Exhibit 1. Characteristics of America’s Promise participants

Characteristic	Share of sample	Percent female
Program year		
2017 (July 2017 – June 2018)	22%	46%
2018 (July 2018 – June 2019)	36%	50%
2019 (July 2019 – June 2020)	33%	53%

Characteristic	Share of sample	Percent female
2020 (July 2020 – June 2021)	8%	47%
Sex		
Male	50%	0%
Female	50%	100%
Age at program entry		
24 or younger	30%	52%
25–34	33%	52%
35–44	18%	49%
45 or older	20%	46%
Race and ethnicity		
Hispanic	15%	50%
White, non-Hispanic	48%	49%
Black, non-Hispanic	28%	53%
Other or multiracial	9%	54%
Training industry		
Advanced manufacturing	36%	19%
Health care	32%	88%
Information technology	21%	35%
Other	11%	52%
Sample size	25,056	

Note: Due to rounding error, the total sample share for some categories do not sum to 100%.

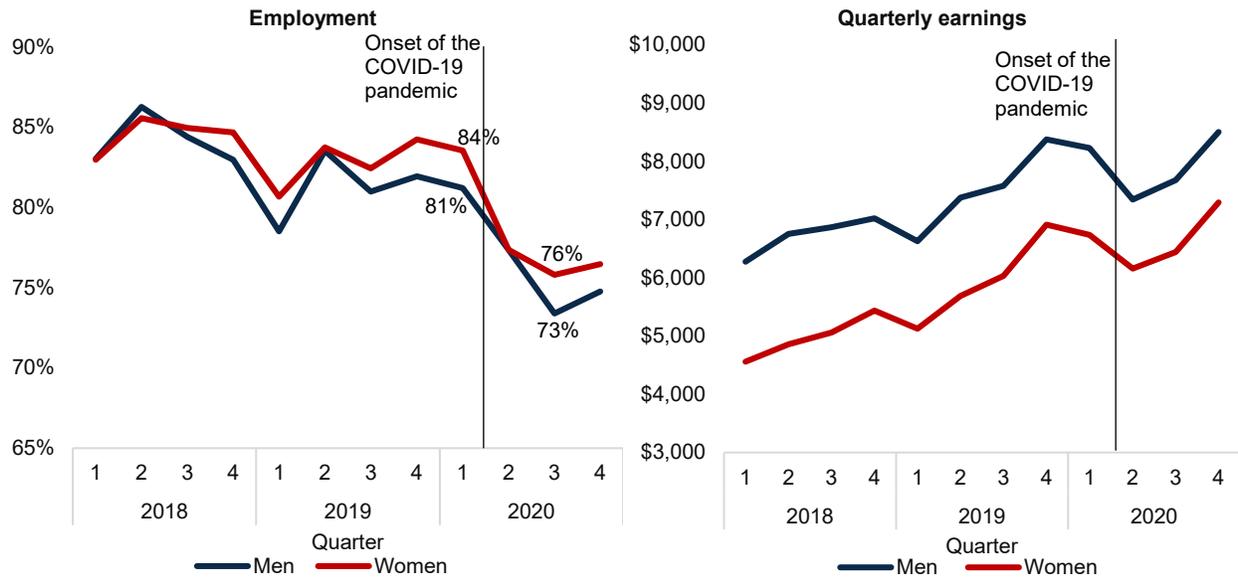
Source: Workforce Integrated Performance System data.

Exhibit 1 also shows the share of female participants by participant characteristic and training industry. Women represent approximately half of participants, but women enroll in different training programs from men. More men than women have received training in two of the three largest industries—advanced manufacturing (81 percent men) and information technology (65 percent men). In contrast, 88 percent of participants training in health care occupations are women. The gendered allocation of trainees is consistent with evidence from other evaluations of DOL-sponsored programs that show overrepresentation of women in training related to health care and clerical work and heavy underrepresentation in training in skilled manufacturing (Inanc et al. 2017).

Employment and earnings

Like the full U.S. population, America’s Promise participants experienced a drop in employment and earnings after the onset of the COVID-19 pandemic. By the third quarter of 2020, employment among America’s Promise participants was 8 percentage points lower than it was in the first quarter of 2020. However, unlike the full population, this drop was not larger for women than it was for men. Before COVID-19, employment rates were similar for male and female America’s Promise participants, and both genders experienced similar employment drops after the onset of the pandemic. Men experienced a 7.8 percent drop in employment from the first through third quarters of 2020 relative to a 7.7 percent drop for women participants in this period (Exhibit 2). Although men earned an average of approximately \$1,600 more per quarter than women before the onset of the COVID-19 pandemic, this gap decreased to approximately \$1,200 during the COVID-19 recession.

Exhibit 2. Average employment and earnings of America’s Promise participants by gender

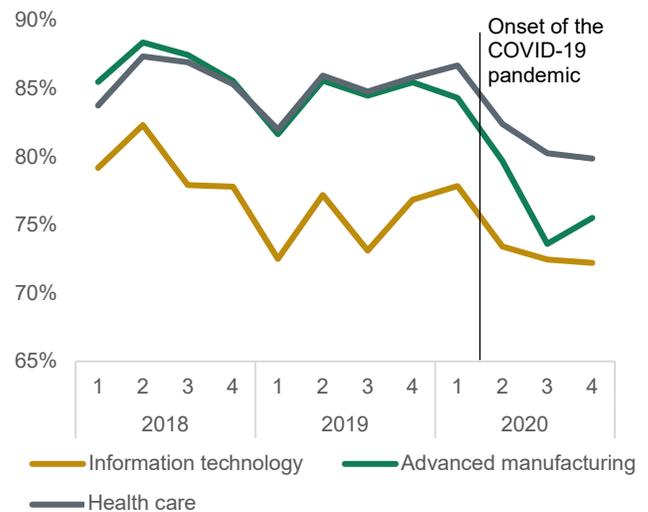


Source: Workforce Integrated Performance System data matched to National Directory of New Hires data. N = 14,373.

Note: Analysis sample includes America’s Promise participants who enrolled in America’s Promise between July 1, 2017 and June 30, 2019 with a valid match to the NDNH data.

The employment and earnings patterns of America’s Promise participants during the COVID-19 recession for men and women reflect the gender differences in both occupational and personal challenges posed by COVID-19. Among America’s Promise participants, the most common training industry for women is health care occupations whereas men most commonly train in advanced manufacturing. During the COVID-19 recession, trainees in advanced manufacturing experienced the largest employment drop. The employment drop from the first through third quarters of 2020 for advanced manufacturing trainees was 11 percentage points, relative to 6 percentage points for health care trainees and 5 percentage points for information

Exhibit 3. Employment of America’s Promise participants by industry

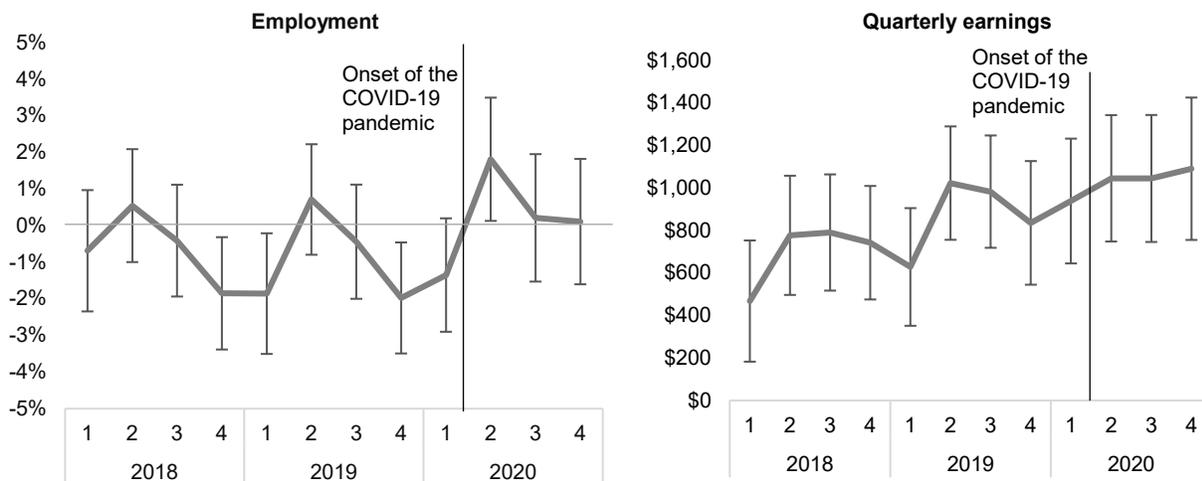


Source: Workforce Integrated Performance System data matched to National Directory of New Hires data. N = 14,373.

technology trainees (Exhibit 3)¹. This suggests that if men and women experienced the other effects of the pandemic similarly, we would expect the employment drop to be larger for men.

Exhibit 4 shows the difference in employment rates and earnings between male and female America’s Promise participants after controlling for employment trends in each industry and individual characteristics using a regression analysis. Overall, after adjusting for these controls, in the three quarters following the onset of the COVID-19 pandemic, men were an average of 0.7 percentage points *more* likely to be employed than women, despite being an average of 0.8 percentage points *less* likely to be employed in the nine quarters before the pandemic. This difference is statistically significant and suggests that the pandemic may have affected women’s employment more so than men’s, although the difference is relatively small. After adjusting for training industry, program, and individual characteristics, male participants earned more than female participants, and the earnings gap between men and women increased from an average of \$806 in the nine quarters before COVID-19 to \$1,060 in the three quarters following the onset of COVID-19. Although the patterns in Exhibit 4 do not appear consistent with a sharp increase at the onset of the COVID-19 pandemic, these results show that the earnings gap between men and women grew over this period of 2018-2020.

Exhibit 4. Differences between the employment and earnings of male and female America’s Promise participants (adjusted for training industry, program- and individual characteristics)



Source: Workforce Integrated Performance System data matched to National Directory of New Hires data. N = 14,373.

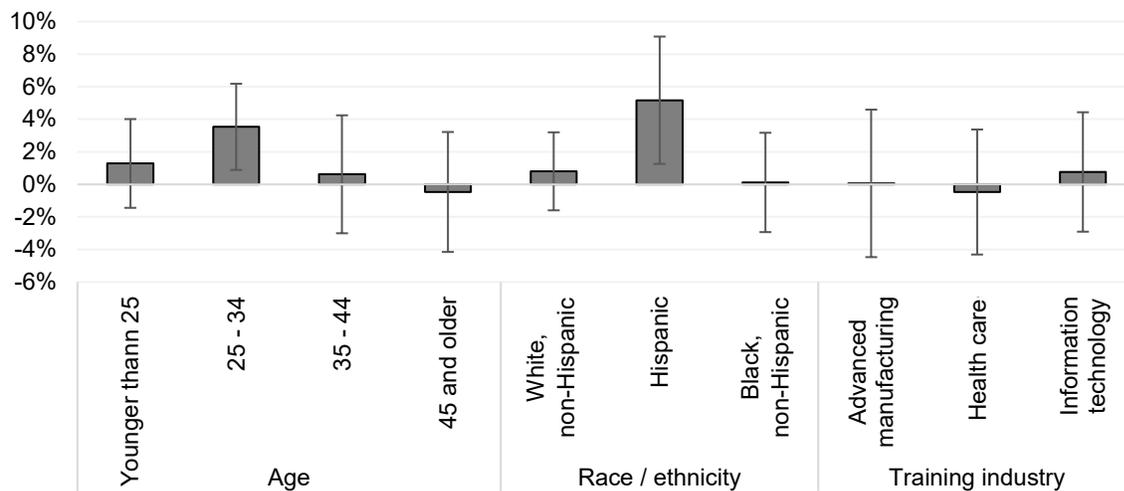
Note: Y-axis shows the regression-adjusted difference in employment or earnings between male and female participants, with higher numbers representing male participants having higher rates of employment or earning more in comparison and negative numbers representing female participants having higher rates of earnings or employment than males. Estimates adjust for race, age category, training industry, grantee, and program year. Error bars show the 95 percent confidence intervals for each estimate.

Despite finding no large differences in the impact of the COVID-19 pandemic on male and female America’s Promise participants, we assess whether gender differences may have still existed within certain subgroups of participants. For example, if gender differences emerged due to different child care responsibilities for the two groups, we would expect to see the strongest impact of the pandemic on the subgroup of women who are most likely to have young children. Consistent with this hypothesis, the

¹ The reported percentage point drops in employment differ from Exhibit 3 due to rounding.

employment gap between men and women increased by 4 percentage points for participants ages 25 to 34,² compared to 1 percentage point or less for all other age groups.³ In addition, the employment gap between men and women increased more by 5 percentage points for Hispanic participants, relative to 1 percentage point both non-Hispanic White and 0 percentage points for Black participants.⁴ This is consistent with other research which has suggested that Hispanic workers faced greater economic and health costs due to COVID-19 relative to white workers, but conflicts with similar findings on black workers (Gould et al. 2020, Gould and Wilson 2020). There were no meaningful differences in the impacts of the pandemic on employment gaps between men and women by industry.

Exhibit 5. Change in the employment gap between male and female America’s Promise participants following the onset of the COVID-19 pandemic (adjusted for training industry, program- and individual characteristics)



Source: Workforce Integrated Performance System data matched to National Directory of New Hires data. N = 14,373.

Note: Y-axis shows the regression-adjusted difference in employment between male and female participants, with a positive number representing male participants having higher employment rates than female participants. Error bars show the 95 percent confidence intervals for each estimate. Analysis sample includes America’s Promise participants who enrolled in America’s Promise between July 1, 2017 and June 30, 2019 with a valid match to the NDNH data. Analysis covers calendar years 2018-2020, with Q2 2020 – Q4 2020 representing the period following the onset of the COVID-19 pandemic.

Training program completion

The onset of COVID-19 affected America’s Promise programs’ ability to operate training programs and their participants’ ability to attend (Bellotti et al. 2021). Many hands-on training programs were paused or discontinued. Other training programs shifted to remote or hybrid training formats of both remote and in-person instruction. Participants faced new challenges such as additional child care responsibilities or

² Authors calculations based on data from the American Community Survey show that this is the age group most likely to have young children in the household.

³ This difference is jointly statistically significant at the .05 level but only individually statistically significant for the comparison with the 45 and older age group.

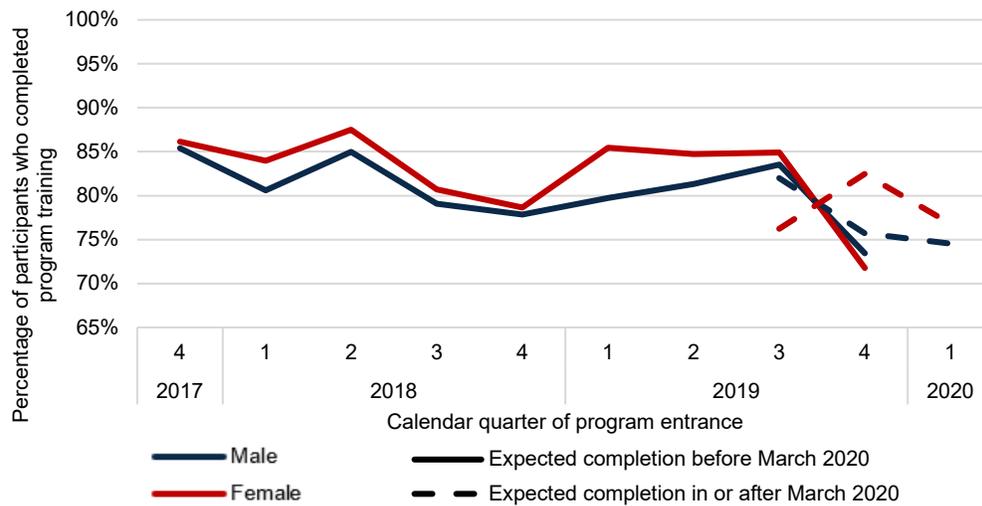
⁴ These differences are statistically significant at the .05 level.

limited access to reliable internet connections (Bellotti et al. 2021). These challenges may have been different for men and women due to the differences in their training industries and the challenges posed by COVID-19. To assess how these differences affected participants’ ability to complete training programs, we analyzed how completion rates and average time to completion changed following the onset of the pandemic among male and female participants who were already enrolled in America’s Promise.

Exhibit 6 shows the share of America’s Promise training participants⁵ who completed a training program, separately by gender and quarter of program entrance for two groups of participants. The first group of participants had expected program completion dates before the onset of the pandemic (defined as before



Exhibit 6. America’s Promise training program completion rates by gender and expected date of program completion



Source: Workforce Integrated Performance System. N =13,252 expected completion before March 2020, 2,305 expected completion in or after March 2020.

March 2020), and the second group had expected program completion dates in or after March 2020.⁶ Consistent with the increased challenges posed by COVID-19, completion rates were an average of 5 percentage points lower for participants with expected

completion after the COVID-19 onset than before.⁷ This change was not markedly different for men and women, with women experiencing an average 6 percentage point drop in completion rates compared to an average 4 percentage point drop for men. This difference was not statistically significant. Although this analysis is limited to participants who started training, there was also no difference in the relative likelihood of America’s Promise participants dropping out without completing training among all participants following the onset of COVID-19.⁸

The changes to the nature of training provision due to COVID-19 affected training industries differently. Information technology programs could generally transition to remote courses, but the transition was more difficult for advanced manufacturing and health care training programs (Bellotti et al. 2021).

⁵ Approximately 11 percent of America’s Promise program enrollees did not start a training program.

⁶ Expected completion dates are estimated as the median time to program completion for a given training industry and grantee, among participants who complete training at any point in the data.

⁷ This difference is statistically significant at the .05 level.

⁸ We estimate the likelihood of America’s Promise participants dropping out without completing training for each calendar quarter as the share of people exiting the program at any point before completing any training among all participants who enrolled in that calendar quarter.

Consistent with this, completion rates for advanced manufacturing and health care training programs dropped by 3 percentage points and 8 percentage points, respectively, for people expected to complete following the onset of COVID-19. In contrast, completion rates for information technology programs rose by 10 percentage points.⁹ These changes differed for men and women. In advanced manufacturing, completion rates among women following COVID-19 increased by 2 percentage points, whereas completion rates among men dropped by 4 percentage points (Exhibit 7). In health care programs, the drop in completion rate among women was 5 percentage points smaller than for men,

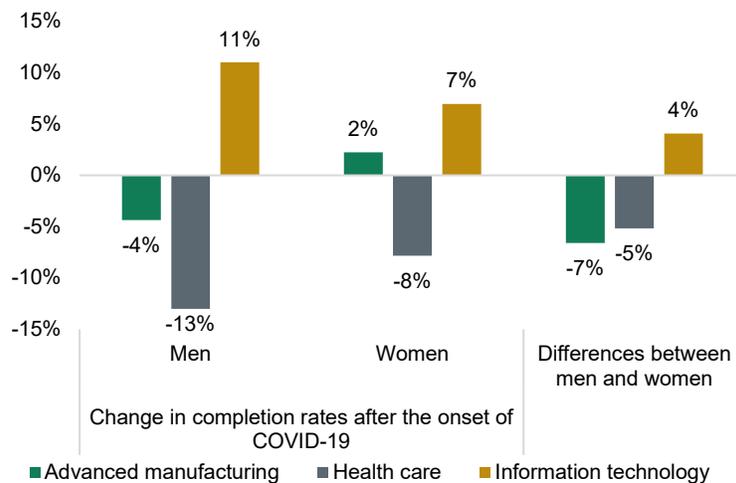
whereas in information technology programs, men were relatively more likely than women to complete training following COVID-19.¹⁰

Although there were no economically meaningful overall differences in the drop in training completion by gender, some key differences emerge when considering other participant characteristics (Exhibit 8).

Among participants ages 25 to 34 and 35 to 44—the groups most likely to have young or school-age children—completion rates fell by only 1 to 3 percentage points for men but by 7 to 8 percentage points for women. In contrast, among participants ages 45 and older, completion rates fell by 14

percentage points for men but only 2 percentage points for women. This difference is largely driven by low completion rates among men ages 45 and older in training sectors other than advanced manufacturing, health care, and information technology after the onset of COVID-19 relative to other industries. Together, these findings may highlight the different challenges women with young children face and suggest that other changes brought on by COVID-19 may have favored some groups of women. Differences also emerge by race and ethnicity, with training program completion rates among Hispanic women dropping by 9 percentage points compared to an increase of 2 percentage points for Hispanic men. In contrast, changes in completion rates among non-Hispanic White women were similar to white men and Black women actually experienced a 4 percentage point smaller change in completion rates following the onset of COVID-19 than black men.

Exhibit 7. Changes in training program completion of America's Promise participants following COVID-19, by industry



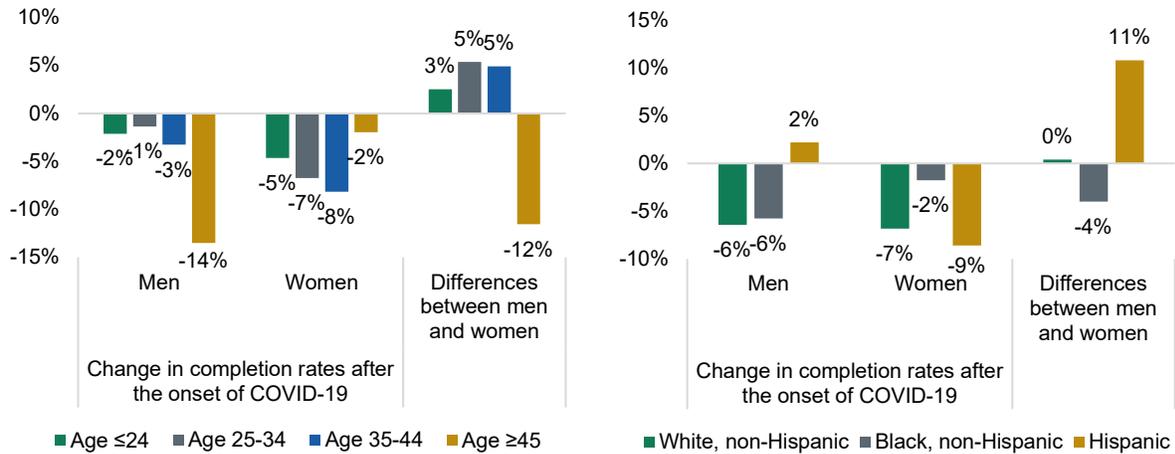
Note: Change in completion rates are estimated as the average completion rate following COVID-19 minus the completion rate prior to COVID-19.

Source: Workforce Integrated Performance System. N =13,252 expected completion before March 2020, 2,305 expected completion in or after March 2020.

⁹ Based on author analysis of WIPS data.

¹⁰ This difference is not statistically significant at the .05 level.

Exhibit 8. Changes in training program completion of America’s Promise participants following COVID-19, by participant characteristics

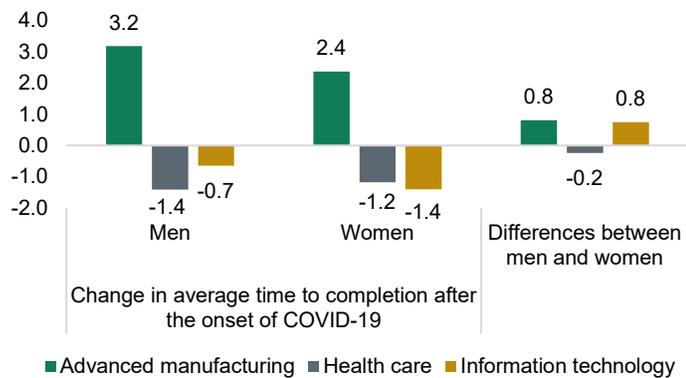


Source: WIPS data

A closer look at those who completed America’s Promise training programs reveals that the average time to completion increased by 0.9 months with the onset of COVID-19.¹¹ This increase was statistically significant ($p < .001$). However, it masks substantial variation by gender. Specifically, average time to completion increased by 1.9 months for men after COVID-19, while it decreased by 0.3 months for women. This substantive difference was consistent across age and race and ethnicity groups, and might result instead from differences in enrollment patterns across training industries. Both men and women took longer to complete advanced manufacturing programs (by 3.2 months and 2.4 months on average, respectively) after the onset of COVID-19 compared to before (Exhibit 9).

However, advanced manufacturing accounts for a far greater share of enrollment among men than among women. On the other hand, women were more concentrated in health care programs and (to a lesser degree) information technology programs, in which time to completion decreased for both genders. Furthermore, in information technology programs, time to completion among women decreased by 0.8 months more than men.

Exhibit 9. Changes in average time (months) to training completion following COVID-19, by industry



Source: WIPS data

The findings on changes in training program completion and time to completion align with strategic program changes made in response to the COVID-19 pandemic (Bellotti et al. 2021). The shift to virtual learning in information technology programs may have supported flexible study arrangements for women

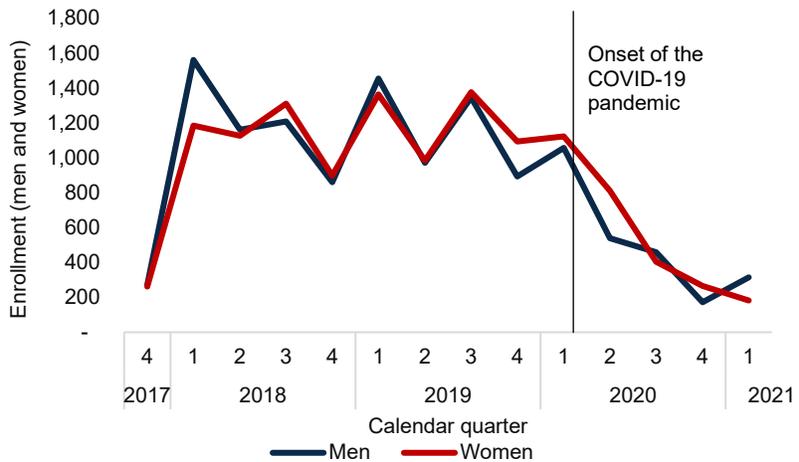
¹¹ Based on author analysis of WIPS data.

with caregiving responsibilities. Furthermore, participants enrolled in health care programs had completed most requirements before COVID-19 shutdowns, with only the certification exam and a few clinical training hours remaining. On the other hand, advanced manufacturing programs, which enrolled predominantly men, were not able to shift as easily to virtual models. Rather, they experienced substantial challenges including shutdowns and reduced capacity in training facilities and manufacturing floors to meet social distancing requirements, resulting in delays and pauses in classes (Bellotti et al. 2021).

Program enrollment

Facing the increased challenges to providing training in response to the COVID-19 pandemic, five America’s Promise training programs paused enrollment or others cut program capacity (Bellotti et al. 2021). At the same time, facing additional challenges and risks, potential participants were less likely to register for training. This trend is clearly visible in enrollment in America’s Promise, which dropped by 38 percent in the first and second quarters of 2020 and was down by 80 percent by the fourth quarter of 2020

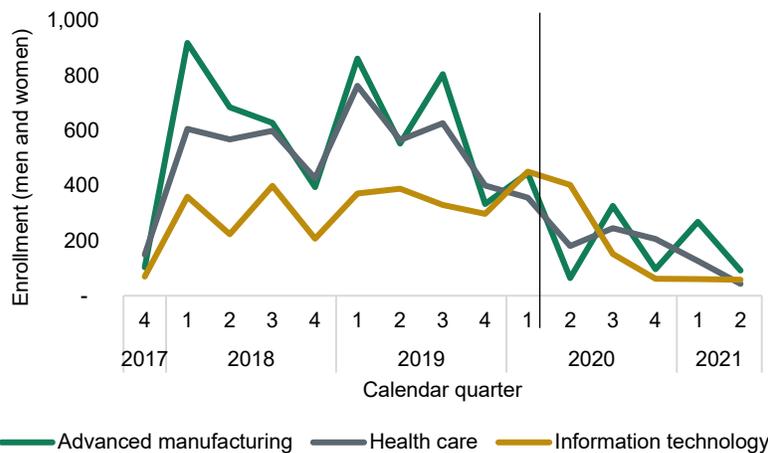
Exhibit 10. Enrollment in America’s Promise by gender



Source: WIPS data

(Exhibit 10). This drop was slightly smaller for women, who comprised 50 percent of America’s Promise participants before the onset of COVID-19 and 53 percent after, a difference that was statistically significant.

Exhibit 11. Enrollment in America’s Promise by industry



Source: WIPS data

Although men and women tend to train in different industries, and the industries were hit differently by the onset of COVID-19, these differences do not explain the slight increase in female enrollees after the pandemic’s onset. Enrollment in advanced manufacturing training, which is heavily male-dominated, and health care training, which is heavily female-dominated, fell by similar amounts (Exhibit 11). Advanced manufacturing experienced an average 70 percent drop in average quarterly enrollment and

healthcare experienced a 68 percent drop. Enrollment in information technology also fell, although by somewhat less. Taken together, changes in the composition of industries which participants enrolled in would only have predicted a 0.5 percentage point increase in the share of female enrollees, suggesting that most of the 3 percentage point change in the share of female enrollees was driven by changes in gender composition within industry.

Conclusion

The results of our analyses show that America's Promise participants experienced a drop in employment and earnings at the onset of the COVID-19 pandemic; however, the differences in this drop between men and women were not meaningful. These results contrast with the employment trends seen in the general population, which show that women were more strongly affected than men.

The lack of gender differences in the employment effects of the COVID-19 pandemic likely masks two competing forces for America's Promise participants. First, in contrast to the general population, women in America's Promise programs trained in industries that were not disproportionately impacted by the pandemic. Among participants in America's Promise training programs, within the most common training industries, advanced manufacturing—a male-dominated industry—experienced the largest employment decreases. When we adjust results to account for differences by industries over time, women did experience a somewhat larger drop in employment than men. This difference is primarily driven by women ages 25 to 34, who are the most likely to have young or school-age children. This provides suggestive evidence that child care responsibilities may have affected some female participants' ability to work.

Following the onset of COVID-19, America's Promise participants experienced a 5 percentage point drop in training program completion, which does not differ by gender. This likely reflects that most America's Promise programs were able to adapt to the new challenges COVID-19 posed, such as by providing training remotely or through a hybrid method and adding supportive services for program participants (Bellotti et al. 2021). Our results suggest that these measures were successful in allowing participants already enrolled in the programs to complete training. However, this overall finding masks greater variation in gender differences by training industry and participant characteristics. In particular, men experienced disproportionate setbacks in advanced manufacturing programs, both in terms of completion rate and time to completion. These programs encountered substantial challenges due to the pandemic and were not able to transition to virtual learning as successfully as other programs. Some other groups that experienced a disproportionate drop in completion rates following COVID-19 were women ages 25 to 44, men age 45 or older, and, Hispanic women. These support the theory that despite the additional supports, child care-related challenges may have had at least some impact on program completion for mothers of young children and that Hispanic women experienced unique challenges that hindered program completion.

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