

Fact Sheet

New Jersey Women in Technology During COVID-19

August 2022



TECHNOLOGY, one of New Jersey's key [industry](#) sectors, did not go through the pandemic unscathed, as the ensuing recession and uncertainty led some companies to be more frugal with their budgets by letting go of some of their workers. School and daycare closures also contributed to employment declines. Yet given that the characteristics of many jobs in the tech sector were amenable to telework, other people working in tech were able to keep their jobs and continue to work from home. The net impact of the pandemic on men and women in the technology sector is thus ambiguous. Using American Community Surveys (ACS) data, we analyze how the pandemic altered the economic experiences of New Jersey women working in technology.¹

In this factsheet, the technology industry includes the following sub-industries available in the American Community Surveys according to North American Industry Classification System (NAICS) designation:²

Information:

- Software publishers
- Telecommunications
- Data processing and related services

Professional and technical services:

- Architectural and engineering services
- Computer systems design and related services
- Scientific research and development services

Women make up about 29% of New Jersey's technology workers. The scientific research and development service industry had the highest share of women workers: 51% of the industry's workers were women. Architectural and engineering services had the lowest share at 22%.

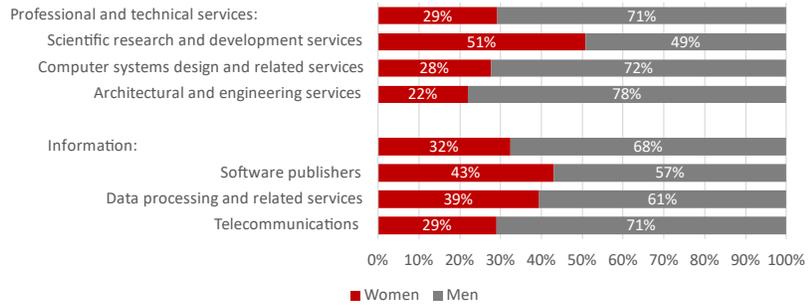
¹Note that 2020 ACS data use [experimental survey weights](#) to account for COVID-related disruptions in survey collection. ACS are household survey data and therefore will not directly match state-level employment statistics.

² We explicitly examine industries, not occupational categories.

Figure 1. Gender breakdown in technology sectors in New Jersey, 2020

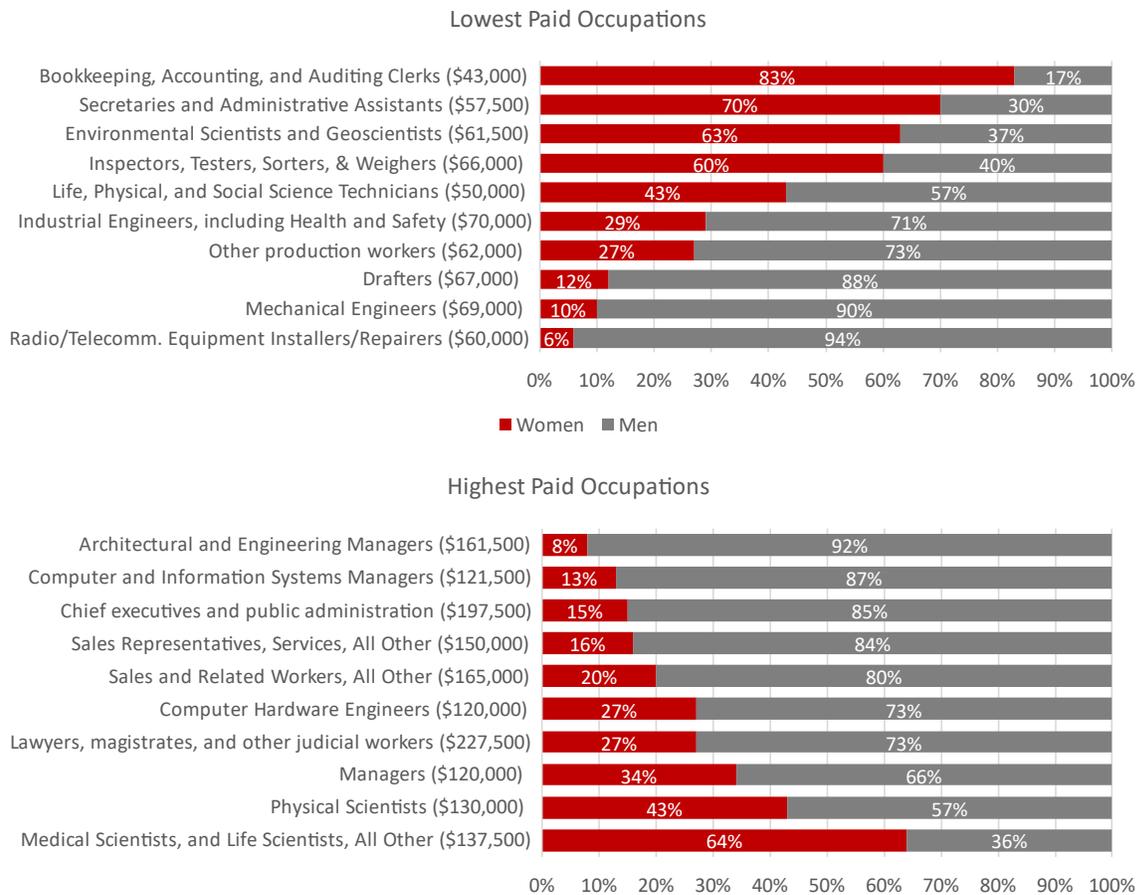
Note: Sample limited to New Jersey respondents working in a technology industry.

Source: Rutgers University’s Center for Women & Work analysis of survey-weighted 1-year ACS data.



Women are overrepresented in some of the lowest-wage occupations in technology, including bookkeeping/accounting, secretaries and administrative assistants, and environmental scientists. **Women are largely underrepresented in the industry’s highest-wage occupations**, except among medical and life scientists.

Figure 2. Highest & lowest paid technology occupations in New Jersey by gender breakdown, 2020



Note: Top/bottom ten paid occupations in technology calculated by median 2020 income of full-time and year-round New Jersey workers. Sample limited to New Jersey respondents working in a technology industry.

Source: Rutgers University’s Center for Women & Work analysis of survey-weighted 1-year ACS data.

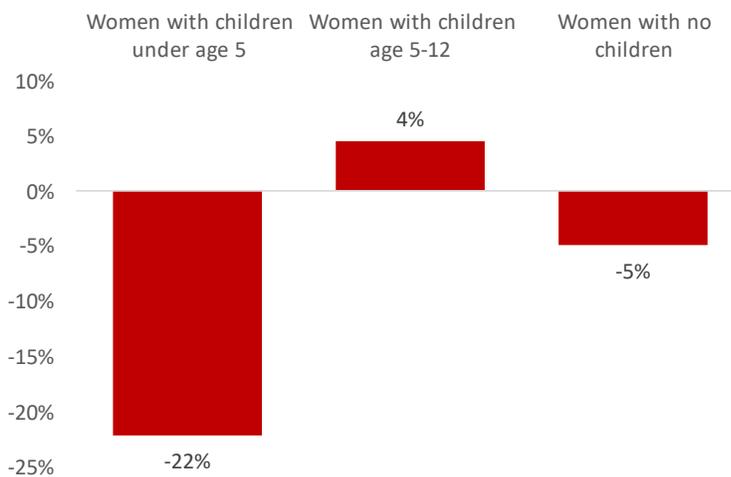
The [detailed industry analysis](#) from the state’s Department of Labor and Workforce Development indicates that employment in New Jersey’s technology industry remained relatively constant.

However, **there was a decrease (3%) in the number of women working in technology between 2019 and 2020 in New Jersey** while the number of men employed in the technology industry increased at a rate of about 3%. Among all technology industries, data processing and software publishers saw among the largest decreases in both men’s and women’s employment between 2019 and 2020: women’s employment decreased by 54% in data processing and by 30% in software publishing, while men’s decreased by 22% and 47% respectively. The only technology industries with an increase in the number of women workers between 2019 and 2020 were computer systems design (5%) and scientific research and development services (7%).

The decline in women working in technology was largely driven by women with young children leaving or losing their jobs. Between 2019 and 2020, the number of women with children under age 5 working in technology decreased by 22%.

Figure 4. Percent change in number of women workers employed in technology in New Jersey, 2019 and 2020

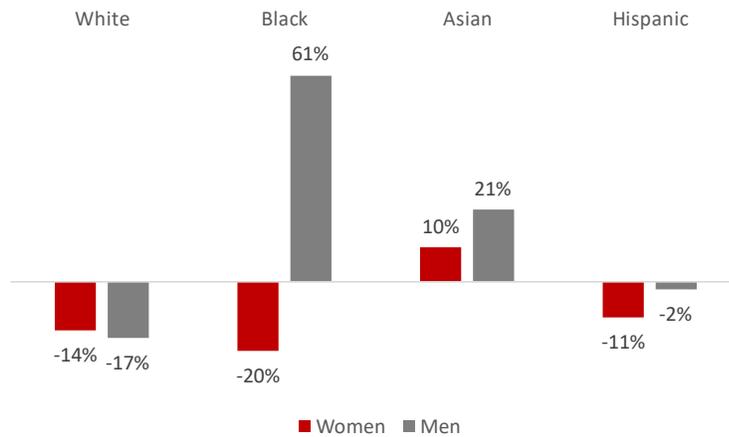
Note: Sample limited to New Jersey respondents working in technology.
Source: Rutgers University’s Center for Women & Work analysis of survey-weighted 1-year ACS data.



Race and ethnicity also played a role. **White and Black women left or lost their technology jobs in large numbers in 2020**: there was a 14% decrease in the number of White women working in technology between 2019 and 2020, and a 20% decrease among Black women. This decline is larger than the withdrawal of Hispanic women (11%). In contrast, there was a **10% increase in Asian women workers in technology between 2019 and 2020**.

Figure 4. Percent change in number of workers employed in technology in New Jersey, 2019 and 2020

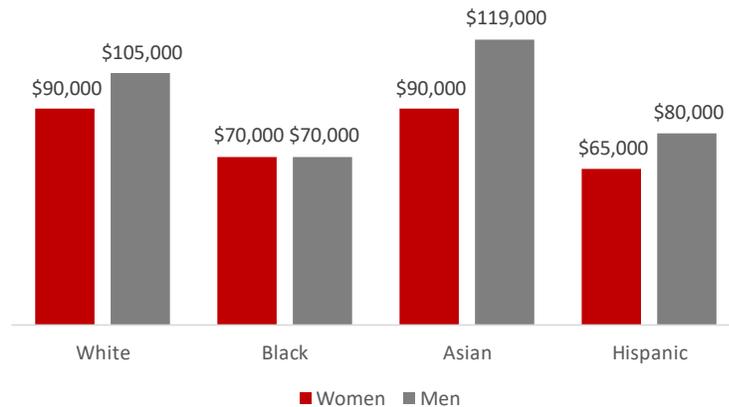
Note: Sample limited to New Jersey respondents working in technology.
Source: Rutgers University’s Center for Women & Work analysis of survey-weighted 1-year ACS data.



Hispanic women earned the lowest wages in technology on average. In fact, in 2020, Hispanic women working full-time in technology earned a median annual income of just \$65,000.

Figure 5. Median wages for full-time technology workers in New Jersey, 2020

Note: Sample limited to New Jersey respondents working in technology.
Source: Rutgers University’s Center for Women & Work analysis of survey-weighted 1-year ACS data.



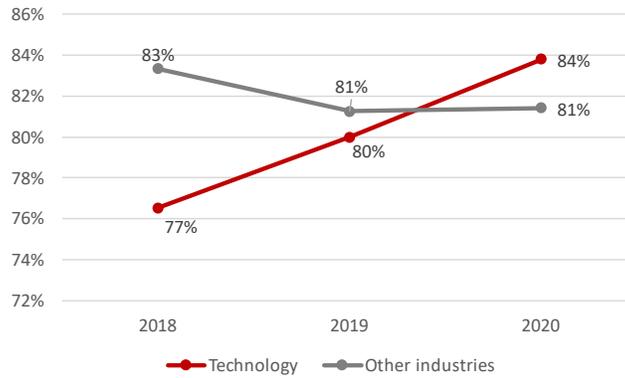
From 2019 to 2020, the median wages of women who managed to continue working full-time and year-round in technology industries increased by 10% (from \$80,000 to \$88,000) while men’s median wages increased by just 5% (from \$100,000 to \$105,000). These trends helped **improve women’s relative earnings in technology: in 2019, women working full-time in technology earned 80% of what men earned, and this ratio rose to 84% in 2020.**³ In other industries in New Jersey, women’s relative earnings remained stagnant, where women earned 81% of men’s earnings in 2019 and in 2020.

³ Gender wage gaps are typically calculated using the wages of workers who were employed full-time and year-round. Using American Community Surveys data, we include respondents in this measurement group if they are over age 16, reported that they usually worked 35 or more hours per week, and worked at least 50 weeks during the previous 12 months. This means that the wages of those working part-time or seasonally are not included in wage gap analyses.

Figure 6. Gender pay ratio in technology and in other industries in New Jersey, 2018 to 2020

Note: Sample limited to New Jersey individuals who have non-zero labor income and are working full-time and year-round. This includes all people 16 years old and over who usually worked 35 hours or more per week and worked for at least 50 weeks in the previous year.

Source: Rutgers University's Center for Women & Work analysis of survey-weighted 1-year ACS data.

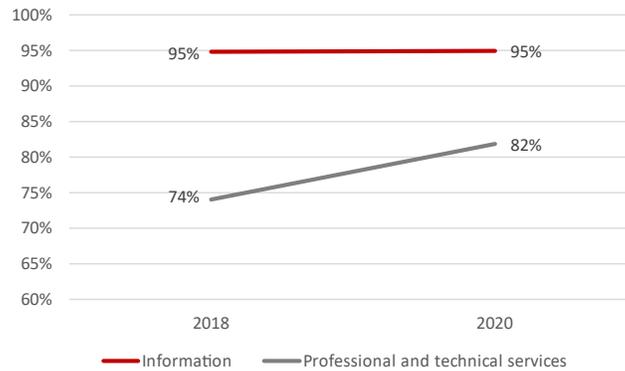


Women's relative earnings have generally been higher in information industries (New Jersey women earned 95% of what men earned in the information industries in 2020), but women's relative earnings did continue to improve in the professional and technical services.

Figure 7. Gender pay ratio in information and professional technical services in New Jersey, 2018 to 2020

Note: Sample limited to New Jersey individuals who have non-zero labor income and are working full-time and year-round. This includes all people 16 years old and over who usually worked 35 hours or more per week and worked for at least 50 weeks in the previous year.

Source: Rutgers University's Center for Women & Work analysis of survey-weighted 1-year ACS data.



Although gender pay gaps are closing in the technology industry, the data suggest that women still experience barriers. Large reductions in the number of New Jersey women with children in the industry suggest that they face particular constraints to full participation in technology industries. In order to improve gender pay equity and representation in the field, family friendly policies will need to be prioritized.

ABOUT THE AUTHORS

This fact sheet was authored by the Rutgers Center for Women and Work with funding support from the [State of Employment and Training Commission's Council on Gender Parity in Labor and Education, State of New Jersey](#).

ABOUT THE CENTER FOR WOMEN AND WORK

[The Center for Women and Work \(CWW\)](#) engages in research, education and programming that promotes economic and social equity for women workers, their families, and communities. CWW's work focuses on addressing women's advancement in the workplace; providing technical assistance and designing programming for educators, industry, and government; and, engaging in issues that directly affect the living standards of working families in New Jersey and around the world.

ABOUT THE COUNCIL ON GENDER PARITY

The Council on Gender Parity in Labor and Education's mission is to recommend policies, strategies and programs that address gender-based barriers and encourage equal participation of students and workers in education, training, and employment. The Council on Gender Parity in Labor and Education is a joint effort of the New Jersey State Employment and Training Commission and the Division on Women funded through the New Jersey State Budget.



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