Women in the Workforce: The Gender Pay Gap Is Greater for Certain Racial and Ethnic Groups and Varies by Education Level

Prior research has shown that women in the U.S. workforce earn less than men and face challenges in advancing their careers. Our March 2022 report found that in 2019, women were underrepresented in management positions.

You asked us to assess disparities for women in the U.S. workforce, including the gender pay gap, in recent years. This is an interim report, and we plan to issue a more detailed report in spring 2023. This interim report examines (1) the representation of women, and the difference in pay between women and men, in the overall workforce; and (2) how pay differences between women and men in the overall workforce vary based on race and ethnicity and level of education.

To assess women’s workforce representation and pay, we reviewed published summary-level data from the U.S. Census Bureau’s (Census Bureau) American Community Survey (ACS) from 2018, 2019, and 2021. Specifically, we reviewed ACS 1-year estimates for each of these three years. We reviewed summary-level ACS data because record-level data were not available in time to use in our analysis. For our spring 2023 report, we plan to analyze record-level ACS data for 2018, 2019, and 2021. Due to data collection disruptions early in the COVID-19 pandemic, the Census Bureau determined that the estimates produced in the 2020 ACS did not meet statistical quality standards. We did not include the 2020 ACS data in this report.
published data and recalculating margins of error.\(^5\) Because we reviewed summary-level ACS data, the results in this report are not comparable to the results in our prior reports, for which we analyzed record-level ACS data.\(^6\) However, to put the results in context, we have noted our relevant prior work throughout this report. Because the ACS is a sample survey, all results in this report are estimates, and we express our confidence in the estimates with a 95 percent confidence interval.\(^7\) We assessed the reliability of the ACS data by reviewing documentation on the general design and methods of the ACS and on the specific data elements that we included in this report. Based on these efforts, we determined that the published ACS data for 2018, 2019, and 2021 were sufficiently reliable for our purposes.\(^8\) This report is descriptive, and it neither confirms nor refutes the presence of discriminatory practices.

We conducted this performance audit from May 2022 to December 2022 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

**Women Make Up More than 40 Percent of the Overall Workforce and Earn an Estimated 82 Cents for Every Dollar Earned by Men**

In recent years, women made up more than 40 percent of the overall workforce, and their representation varied by sector, according to the Census Bureau’s published ACS data on full-time workers.\(^9\) The percentage of women in the overall workforce remained consistent from 2018 to 2021, at an estimated 43.2 percent to 43.7 percent of the workforce, even though

---

\(^5\)The estimates in the published summary-level ACS data include margins of error calculated at the 90 percent confidence level. We recalculated those margins of error at the 95 percent confidence level.

\(^6\)Specifically, the results in this report are not comparable to the results in our March 2022 report (GAO-22-105796) or our 2010 report on women in management (GAO-10-892R).

\(^7\)The sample is only one of a large number of samples that might have been drawn. Since each sample could have provided different estimates, we express our confidence in the precision of the particular sample’s results as a 95 percent confidence interval (e.g., a margin of error of plus or minus 7 percentage points). This is the interval that would contain the actual population value for 95 percent of the samples that could have been drawn. All percentage estimates have margins of error at the 95 percent confidence level within plus or minus 0.6 percentage points. All other numerical estimates have margins of error within plus or minus 8 percent of the estimate itself, unless otherwise noted. All of the differences that we discuss in this report are significant at the 95 percent confidence level, unless otherwise noted.

\(^8\)Census Bureau officials told us they thoroughly reviewed the 2021 ACS data and released it as a standard product because the data met statistical quality standards. Officials said that because the ACS data collection methodology returned to normal in 2021 and they received a sufficient number of interviews, they were able to use their standard nonresponse adjustment methodology. Officials also said they reviewed the 2021 data against the quality standard that the 2020 data did not meet and concluded that the 2021 data passed that standard and other standards.

\(^9\)The ACS asks survey respondents to identify their sex (male or female). In this report, we use the term “gender” to refer to these data, and we use the terms “men” and “women” to refer to individuals who identified their sex as male or female, respectively. The ACS does not ask about respondents’ gender identity. In some cases, a respondent’s gender identity may not align with the sex they identified in the ACS.
millions of workers left the workforce during the pandemic. Additionally, women’s representation in the workforce varied by sector. In 2018, 2019, and 2021, women made up more than half of the state and local government and private non-profit workforces. In contrast, women made up less than half of the federal government, private for-profit, and self-employed workforces.

Compared to their representation in the overall workforce, women were underrepresented in management positions in recent years, according to published ACS data on full-time workers. In 2021, for example, women comprised an estimated 41 percent of managers, which was less than the percentage of women in the overall workforce (an estimated 43.7 percent). However, the percentage of female managers increased by about two percentage points between 2018 and 2021, from an estimated 39.2 percent in 2018 to an estimated 41 percent in 2021. See figure 1.

Figure 1: Women’s and Men’s Estimated Representation in Management Occupations and in the Overall Workforce, for Full-Time Workers, 2018, 2019, and 2021

<table>
<thead>
<tr>
<th>Year</th>
<th>Management Occupations</th>
<th>Overall Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>Women: 41.0</td>
<td>Men: 59.0</td>
</tr>
<tr>
<td></td>
<td>Overall: 43.7</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>Women: 40.1</td>
<td>Men: 59.9</td>
</tr>
<tr>
<td></td>
<td>Overall: 43.5</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>Women: 39.2</td>
<td>Men: 60.8</td>
</tr>
<tr>
<td></td>
<td>Overall: 43.2</td>
<td></td>
</tr>
</tbody>
</table>

Note: We reviewed ACS data for the full-time, year-round civilian workforce age 16 and over. All estimates in this figure have a margin of error within plus or minus 0.3 percentage points at the 95 percent confidence level. For example, the estimated percentage of women in the overall workforce in 2021 (43.7 percent) has a margin of error of 0.1 percentage points and a 95 percent confidence interval of 43.6 to 43.8 percent.

We reviewed ACS data for the full-time, year-round civilian workforce age 16 and older, except where otherwise noted. According to ACS data from 2019 and 2021, the estimated size of this workforce decreased by about 4.4 million workers, from about 113.9 million workers in 2019 to about 109.5 million workers in 2021. Of the workers who left the workforce, about 1.7 million (or about 39 percent) were women. This calculated estimate of 1.7 million has a relative margin of error of 8.9 percent.

In the ACS, the Census Bureau categorizes employees according to the type of ownership of the employing organization using a variable called “class of worker.” This includes private sector employees working for for-profit and non-profit organizations, government employees working for local, state, and federal governments (including active-duty service members), and self-employed people working for their own businesses or working without pay in a family business or farm. We use the term “sector” to describe these employment categories.
According to published ACS data on full-time workers, women continued to earn less than men in recent years. For example, in 2021, women earned an estimated 82 cents for every dollar that men earned (an overall pay gap of 18 cents on the dollar). Specifically, annual median pay for women was an estimated $11,243 less than for men (an estimated $49,532 for women and $60,775 for men). The overall gender pay gap in 2018 and 2019 was similar to the overall pay gap in 2021. See figure 2.

Figure 2: Women’s Estimated Median Pay for Every Dollar Earned by Men, for Full-Time Workers in Management Occupations and in the Overall Workforce, 2018, 2019, and 2021

Note: We reviewed ACS data on annual median earnings for the full-time, year-round workforce age 16 and over. All estimates in this figure have a margin of error within plus or minus $0.01 at the 95 percent confidence level. For example, female managers’ estimated median pay for every dollar earned by male managers in 2021 ($0.77) has a margin of error of $0.01 and a 95 percent confidence interval of $0.76 to $0.78. When confidence intervals for estimates overlapped, we ran statistical tests to determine whether observed differences were statistically significant at the 95 percent confidence level. In this figure, the differences between the following estimates were not statistically significant: (1) median pay for women in management occupations in 2018 and 2019; (2) median pay for women in management occupations in 2019 and 2021; (3) median pay for women in the overall workforce in 2018 and 2019; and (4) median pay for women in the overall workforce in 2019 and 2021.

As shown in figure 2, the pay gap for female managers was greater than the overall pay gap in recent years, according to published ACS data. For example, in 2021, full-time female managers earned an estimated 77 cents for every dollar earned by full-time male managers (a pay gap of 23 cents on the dollar). This gender pay gap for full-time managers was greater than the overall pay gap of 18 cents on the dollar. Specifically, annual median pay for female managers in 2021 was estimated at $49,532, while annual median pay for male managers was estimated at $60,775, resulting in a gender pay gap of 23 cents on the dollar.

12In the ACS, the Census Bureau categorizes workers as full time if they usually work 35 or more hours per week. Studies show that women in the U.S. workforce have consistently earned less than men over time. See, for example, Francine D. Blau and Lawrence M. Kahn, “The Gender Wage Gap: Extent, Trends, and Explanations,” Journal of Economic Literature, 55(3) (2017): 789-865.

13For the purposes of this report, we use the term “annual median pay” to refer to median earnings over the last 12 months.
managers was an estimated $21,742 less than for male managers (an estimated $73,091 for female managers, compared to an estimated $94,833 for male managers). The gender pay gap for full-time managers in 2018 and 2019 was similar to the pay gap in 2021.

In addition, the gender pay gap was greater for women (both managers and non-managers) in certain sectors in recent years, according to published ACS data on full-time workers. Specifically, in 2021, the pay gap was greater for women who were self-employed or worked in private, for-profit companies than it was for women who worked in government agencies or non-profit organizations. For example, women who were self-employed in an incorporated business earned an estimated 69 cents for every dollar earned by men (a pay gap of 31 cents on the dollar). Women who worked in private, for-profit companies earned an estimated 78 cents for every dollar earned by men (a pay gap of 22 cents on the dollar). In contrast, women who worked in federal government agencies or non-profit organizations earned an estimated 85 cents for every dollar earned by men (a pay gap of 15 cents on the dollar).\(^{14}\) See figure 3.

![Figure 3: Women's Estimated Median Pay and Representation by Sector, for Full-Time Workers, 2021](image)

Note: We reviewed ACS data on annual median earnings for the full-time, year-round workforce age 16 and over. We use the term “sector” to describe the Census Bureau’s published data on “class of worker,” which categorizes workers according to the type of ownership of the employing organization. The federal government category includes active duty service members.

\(^{9}\)All pay estimates in this figure have a margin of error within plus or minus $0.04 at the 95 percent confidence level. For example, the estimate of $0.69 for women who were self-employed in their own incorporated business has a margin of error of $0.03 and a 95 percent confidence interval of $0.66 to $0.72. When confidence intervals for estimates overlapped, we ran statistical tests to determine whether observed differences were statistically significant at the 95 percent confidence level. In this figure, the differences between the following estimates were not statistically significant: (1) estimated pay for women working in local and federal government, (2) estimated pay for women working in local government and private non-profit organizations, and (3) estimated pay for women working in federal government and private non-profit organizations.

\(^{14}\)We reviewed ACS data on annual median earnings.
All estimates for the percentage of female workers in a sector have a margin of error within plus or minus 0.6 percentage points at the 95 percent confidence level.

As shown in figure 3, the pay gap was generally greater in sectors with smaller percentages of women than in sectors with larger percentages of women. For example, in 2021, in the private, for-profit sector, the pay gap was 22 cents on the dollar and women made up less than half of the workforce, while in the non-profit sector, the pay gap was 15 cents on the dollar and women made up more than half of the workforce. In our 2020 report on the federal workforce, we found a similar relationship between the percentage of women in the workforce and the size of the pay gap across federal agencies.

The Pay Gap Is Considerably Greater for Women in Certain Racial and Ethnic Groups, and Varies by Level of Education

In recent years, the pay gap was considerably greater for women in most historically underserved racial and ethnic groups than for White women, according to the Census Bureau’s published ACS data on full-time workers. We compared annual median pay for women in different racial and ethnic groups to annual median pay for White men. For example, as shown in figure 4, for every dollar earned by White men in 2021:

- Hispanic or Latina women earned an estimated 58 cents (a pay gap of 42 cents on the dollar);
- Black or African American women earned an estimated 63 cents (a pay gap of 37 cents on the dollar);
- White women earned an estimated 79 cents (a pay gap of 21 cents on the dollar); and
- Asian women earned an estimated 97 cents (a pay gap of 3 cents on the dollar).

We did not establish a causal relationship between the size of the pay gap in a sector and the percentage of women in that sector.

GAO, Gender Pay Differences: The Pay Gap for Federal Workers Has Continued to Narrow, but Better Data on Promotions Are Needed, GAO-21-67 (Washington, D.C.: Dec. 3, 2020). However, the results in this report are not directly comparable to the results in GAO-21-67, which focused on federal workers and analyzed a different dataset.

For the purposes of this report, we are defining historically underserved racial and ethnic groups as those who have historically faced barriers in accessing resources due to location, exclusionary policies or practices, or other factors. Specifically, we use this term to refer collectively to the following racial and ethnic groups: Asian, American Indian or Alaska Native, Black or African American, Hispanic or Latino (of any race), and Native Hawaiian or Other Pacific Islander.

We used ACS data to calculate women’s median earnings by race and ethnicity as a percentage of White men’s median earnings in 2018, 2019, and 2021. These data are for full-time, year-round workers with earnings who were age 16 and over, including both managers and non-managers in all industries.

While researchers have found that the pay gap for Asian women as a group is smaller than for White women, as compared to White men, researchers have also found variation in the pay gap among subgroups of Asian people. For example, researchers analyzed data from the Census Bureau’s ACS and Current Population Survey and found that from 2015 to 2019, Taiwanese women earned about $1.21 for every dollar earned by White men, while Vietnamese women earned about 63 cents for every dollar earned by White men. Center for American Progress, The Economic Status of Asian American and Pacific Islander Women (Washington, D.C.: Mar. 4, 2021).
The differences in the pay gap between these groups in 2018 and 2019 were similar to the differences in 2021. In our prior work, we also found that the pay gap was greater for Hispanic/Latina women and Black women than for White women, and was smaller for Asian women than for White women.  

Figure 4: Women’s Estimated Median Pay for Every Dollar Earned by White Men, by Race and Ethnicity, for Full-Time Workers, 2021

Note: We reviewed ACS data on annual median earnings for full-time, year-round workers with earnings who were age 16 and over, and used these data to calculate women’s earnings by race and ethnicity as a percentage of White men’s earnings. The ACS survey asks individuals about their race and ethnicity separately, and the race and ethnicity categories overlap in the published ACS data. For example, individuals who reported that they were Black or African American and Hispanic or Latino would be counted in both of those categories. The pay estimates in this figure—including the denominator of our calculation, pay for White men, which includes Hispanics or Latinos who identify as White—might be different if the race and ethnicity categories were mutually exclusive.

All estimates in this figure have a margin of error within plus or minus $0.01 at the 95 percent confidence level, except the estimate for Native Hawaiian or Other Pacific Islander women, which has a margin of error of $0.03. For example, the estimate of $0.63 for Black and African American women has a margin of error of less than $0.01 and a 95 percent confidence interval of $0.63 to $0.64. When confidence intervals for estimates overlapped, we ran statistical tests to determine whether observed differences were statistically significant at the 95 percent confidence level. In this figure, the differences between the following estimates were not statistically significant: (1) estimated pay for Black or African American women, Native Hawaiian or Other Pacific Islander women, and women of two or more races, and (2) estimated pay for American Indian or Alaska Native women and Hispanic or Latina women.

According to the Census Bureau, “Some other race” includes all other responses not included in the White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander race categories.

According to the Census Bureau, “Two or more races” includes combinations of two or more of the following race categories: White, Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Some other race.

See GAO-22-105796 and GAO-21-67. However, the results in this report are not directly comparable to the results in our prior reports. GAO-22-105796 analyzed record-level ACS data, and GAO-21-67 analyzed the Office of Personnel Management’s Enterprise Human Resources Integration data.
These differences in the gender pay gap by race and ethnicity can also be shown in estimated dollar amounts. For example, according to the Census Bureau’s published ACS data on median pay, in 2021:

- Hispanic or Latina women earned an estimated $38,082 (an estimated $27,699 less than White men);\(^{21}\)
- Black or African American women earned an estimated $41,719 (an estimated $24,062 less than White men);
- Native Hawaiian or Other Pacific Islander women earned an estimated $43,174 (an estimated $22,607 less than White men);\(^{22}\)
- White women earned an estimated $51,777 (an estimated $14,004 less than White men); and
- Asian women earned an estimated $63,761 (an estimated $2,020 less than White men).\(^{23}\)

In recent years, the gender pay gap also varied by level of education, according to the Census Bureau’s published ACS data on full-time and part-time workers.\(^{24}\) For example, in 2021, the gender pay gap was greatest for women with less than a high school diploma or equivalent, and was smallest for women with a bachelor’s degree. Specifically, among workers with less than a high school diploma, women earned an estimated 66 cents for every dollar earned by men (a pay gap of 34 cents on the dollar). Among workers with a bachelor’s degree, women earned an estimated 70 cents for every dollar earned by men (a pay gap of 30 cents on the dollar). See figure 5. The differences in the pay gap by level of education in 2018 and 2019 were similar to the differences in 2021.

---

\(^{21}\)In 2021, White men earned an estimated $65,781.

\(^{22}\)The difference in median pay for Native Hawaiian or Other Pacific Islander women and White men ($22,607) had a relative margin of error of 9.9 percent.

\(^{23}\)The difference in median pay for Asian women and White men ($2,020) had a relative margin of error of 36 percent.

\(^{24}\)We reviewed ACS data on annual median earnings for all workers with earnings who were age 25 or older, including both full-time and part-time workers. If these data were limited to full-time workers, the results might be different. For example, if women with lower education levels were more likely to work less than full time, the gender pay gap including part-time workers would be larger than the pay gap for full-time workers only. Because the ACS data we reviewed did not include estimates for median earnings by education for full-time workers only, we were unable to determine how much of the pay gap by education can be attributed to differences in part-time or full-time employment.
Figure 5: Women’s Estimated Median Pay for Every Dollar Earned by Men, by Level of Education, for Full-Time and Part-Time Workers, 2021

<table>
<thead>
<tr>
<th>Level of education</th>
<th>Estimated median pay (in dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school diploma or equivalent</td>
<td>$0.66</td>
</tr>
<tr>
<td>High school diploma or equivalent</td>
<td>$0.68</td>
</tr>
<tr>
<td>Some college or associate’s degree</td>
<td>$0.68</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>$0.70</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
<td>$0.69</td>
</tr>
</tbody>
</table>

Note: We reviewed ACS data on annual median earnings for all workers with earnings who were age 25 or older, including both full-time and part-time workers. All estimates in this figure have a margin of error within plus or minus $0.01 at the 95 percent confidence level. For example, the estimate of $0.69 for women with a graduate or professional degree has a margin of error of $0.01 and a 95 percent confidence interval of $0.68 to $0.70. When confidence intervals for estimates overlapped, we ran statistical tests to determine whether observed differences were statistically significant at the 95 percent confidence level. In this figure, the differences between the following estimates were not statistically significant: (1) estimated pay for women with less than a high school diploma and women with some college or an associate’s degree, and (2) estimated pay for women with some college or an associate’s degree and women with a graduate or professional degree.

These differences in the gender pay gap by level of education can also be shown in estimated dollar amounts. According to the Census Bureau’s published ACS data on median pay, in 2021, compared to men with the same level of education:

- women with less than a high school diploma earned an estimated $21,337 (an estimated $10,910 less than men, who earned an estimated $32,247);
- women with a high school diploma earned an estimated $27,912 (an estimated $12,977 less than men, who earned an estimated $40,889);
- women with some college or an associate’s degree earned an estimated $34,340 (an estimated $15,834 less than men, who earned an estimated $50,174);
- women with a bachelor’s degree earned an estimated $51,266 (an estimated $22,326 less than men, who earned an estimated $73,592); and
- women with a graduate or professional degree earned an estimated $68,626 (an estimated $30,953 less than men, who earned an estimated $99,579).

Agency Comments

We provided a draft of this report to the Department of Commerce, which includes the Census Bureau, for review and technical comment. The Census Bureau provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees. In addition, the report is available at no charge on the GAO website at https://www.gao.gov.
If you or your staff have any questions about this report, please contact me at (202) 512-4769 or costat@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report were Rebecca Woiwode (Assistant Director), Caitlin Croake (Analyst in Charge), Abigail Loxton, and Miranda Richard. Other contributors to this report were Benjamin Bolitzer, Denise Cook, Alissa Czyz, Cliff Douglas, Nisha Hazra, Kay Kuhlman, Anjalique Lawrence, Zina Merritt, James Rebbe, Monica Savoy, Joy Solmonson, Alexandra Squitieri, Curtia Taylor, Sonya Vartivarian, and Adam Wendel.

Thomas M. Costa, Director
Education, Workforce, and Income Security
Related GAO Products


Women and Low-Skilled Workers: Efforts in Other Countries to Help These Workers Enter and Remain in the Workforce. GAO-07-989T. Washington, D.C.: June 14, 2007.


GAO’s Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO’s commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through our website. Each weekday afternoon, GAO posts on its website newly released reports, testimony, and correspondence. You can also subscribe to GAO’s email updates to receive notification of newly posted products.

Order by Phone

The price of each GAO publication reflects GAO’s actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO’s website, https://www.gao.gov/ordering.htm.

Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537.

Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.

Connect with GAO

Connect with GAO on Facebook, Flickr, Twitter, and YouTube.
Subscribe to our RSS Feeds or Email Updates. Listen to our Podcasts.

To Report Fraud, Waste, and Abuse in Federal Programs

Contact FraudNet:
Website: https://www.gao.gov/about/what-gao-does/fraudnet
Automated answering system: (800) 424-5454 or (202) 512-7700

Congressional Relations

A. Nicole Clowers, Managing Director, ClowersA@gao.gov, (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800, U.S. Government Accountability Office, 441 G Street NW, Room 7149, Washington, DC 20548

Strategic Planning and External Liaison

Stephen J. Sanford, Managing Director, spel@gao.gov, (202) 512-4707, U.S. Government Accountability Office, 441 G Street NW, Room 7814, Washington, DC 20548