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## Article

August 2025

## Recent trends in employment, earnings, and time use among college-educated married mothers

*We use data from the Current Population Survey and the American Time Use Survey to analyze trends in employment, real hourly earnings, and time use among married women with children in the United States. We find that college-educated married mothers were an anomaly in that both their employment–population ratios and their hours worked increased between 2000 and 2019. These increases contrast with declining employment–population ratios and hours worked for high school-educated married mothers, married women without children in all education groups, and for most groups of men during the same period. In addition, we document that real hourly earnings of college-educated mothers steadily increased between 2000 and 2019, unlike other demographic groups, who experienced smaller increases or stagnation in real hourly earnings. Lastly, increases in time doing paid work among college-educated married mothers coincided with declines in time spent on childcare and unpaid domestic work and increases in time spent on childcare among college-educated married fathers.*

Starting in the late 1950s and peaking in the early 2000s, women’s employment–population ratios (hereafter E–P ratios) markedly increased in the United States. At the same time, men’s E–P ratios steadily fell.<sup>1</sup> In this article, we decompose labor supply from 1975 to 2019 by sex, marital status, education, and the presence and ages of children.<sup>2</sup> We use the March supplement of the Current Population Survey (CPS) data from 1975 to 2019 and American Time Use Survey (ATUS) data from 2003 to 2019. We consider recent trends in labor supply at both the extensive and intensive margins.<sup>3</sup> We use the E–P ratio as our measure of the extensive margin of labor supply and calculate the number of employed people (those who have worked at least 500 hours in the prior year) as a percentage of the civilian noninstitutional population. For the intensive margin of labor supply, we report average annual hours worked for those who are employed.

We focus on the 2000–19 period and document several new findings, all of which are statistically significant.<sup>4</sup> First, the E–P ratio did not decrease for married women in that time, but it did for most other comparable groups (notably, men of all education groups, high school-educated women, and nonmarried women). More importantly, labor supply increased among college-educated married mothers during this period at both the extensive and intensive margins. This increase was especially pronounced for college-educated married mothers with young children (those whose youngest child is below the age of 5), compared with those with older children (those whose youngest child is between the ages of 5 and 14 years old). For most other groups, we did not see increases in labor supply during this period.

We are among the first to document a divergence in E–P ratios and hours worked among subgroups of married women beginning in the year 2000.<sup>5</sup> Education levels, the presence of children, and the ages of those children all affect E–P ratios and hours worked: high school-educated married women had a decrease in E–P ratios during this period, and the decreases were larger for mothers than nonmothers (married women without children in the home). In addition, hours worked for high school-educated married mothers have been constant since 2007, while E–P ratios and hours worked for college-educated married mothers have been increasing since the mid-1970s.

We also compare real hourly earnings for various groups of married women.<sup>6</sup> Our analysis suggests that, from 2000 to 2019, the real hourly earnings of college-educated women have increased at a faster rate than those of other cohorts.<sup>7</sup> This pattern is more pronounced among college-educated married mothers (especially those with young children) than nonmothers. As a result, the real earnings gap between college-educated nonmothers and mothers with young children closed in 2004. Since then, real hourly earnings among married college-educated mothers with young children have surpassed those of their childless counterparts.

Lastly, we turn to the ATUS to document important trends in time allocation between married men and women from 2003 (when the ATUS was first available) to 2019, focusing on the time spent on childcare and unpaid domestic work. Between 2004 and 2018 (as measured using 3-year moving averages), college-educated married men have increased their time on childcare, whereas college-educated married women have reduced their childcare time; all of these changes are statistically significant. We also document decreases in time spent on unpaid domestic work among college-educated men and women.

### Data sources

For our analysis, we draw on two nationally representative data sources—the CPS and the ATUS. The samples of each dataset are described in detail below.

## CPS data

We use hours and earnings data from the March supplement of the CPS from 1975 to 2019.<sup>8</sup> The CPS data also contain detailed information about sex, age, marital status, years of education, and number and ages of children in the household. Marital status is categorized as either married or nonmarried.<sup>9</sup> We classify workers as college-educated if they have more than 12 years of formal education and high school-educated if they have 12 years or fewer of education. We compare workers with and without children, and with children of different ages. We classify those with children as anyone with at least one child under the age of 15 in the household (i.e., one or more children). Those with young children are those whose youngest child is under the age of 5 (when formal primary schooling usually starts for children). We also consider households with older children, in which the youngest child is between the ages of 5 and 14. Women and men with no children include those who never had children and those whose youngest child is 15 or older.<sup>10</sup>

We restrict the CPS sample to people between the ages of 25 and 64. For each year, the E–P ratio represents the number of employed people (those who have worked at least 500 hours in the prior year) in a demographic category as a percentage of the civilian noninstitutional population in the same demographic group.<sup>11</sup> For an estimate of hours worked, we calculate average annual hours worked for those who are employed. To calculate this value, we multiply usual hours worked per week over all jobs in the prior year by the actual number of weeks worked last year.

We use CPS data to generate average real hourly earnings for different demographic groups each year. We take total annual earnings from all jobs and divide it by the number of annual hours worked to derive a measure of hourly earnings.<sup>12</sup> Earnings are reported in 2012 dollars, using the Personal Consumption Expenditures (PCE) price index. We use March CPS sample weights for all of our estimates.

## American Time Use Survey data

The American Time Use Survey (ATUS) is produced by the U.S. Bureau of Labor Statistics (BLS) and measures the time that people spend doing paid work, childcare, and other nonmarket activities, such as unpaid domestic work and leisure. The ATUS is a federal survey in which people are randomly selected from a subset of households that have completed their eighth month of interviews for the CPS. Survey respondents are interviewed once about how they spent their time during the previous day. Our sample includes those who report zero and nonzero work hours, but we restrict our sample to people between the ages of 25 and 64. We use the definition of unpaid domestic work from the American Heritage Time Use Survey (AHTUS); it includes a broad range of household activities.<sup>13</sup> We report average minutes per day spent on different activities, averaged over all days of each week. We decompose the results for various demographic groups, again using sample weights.

## Results

In this section, we present key findings on trends in employment, real hourly earnings, and time use patterns.

### Employment

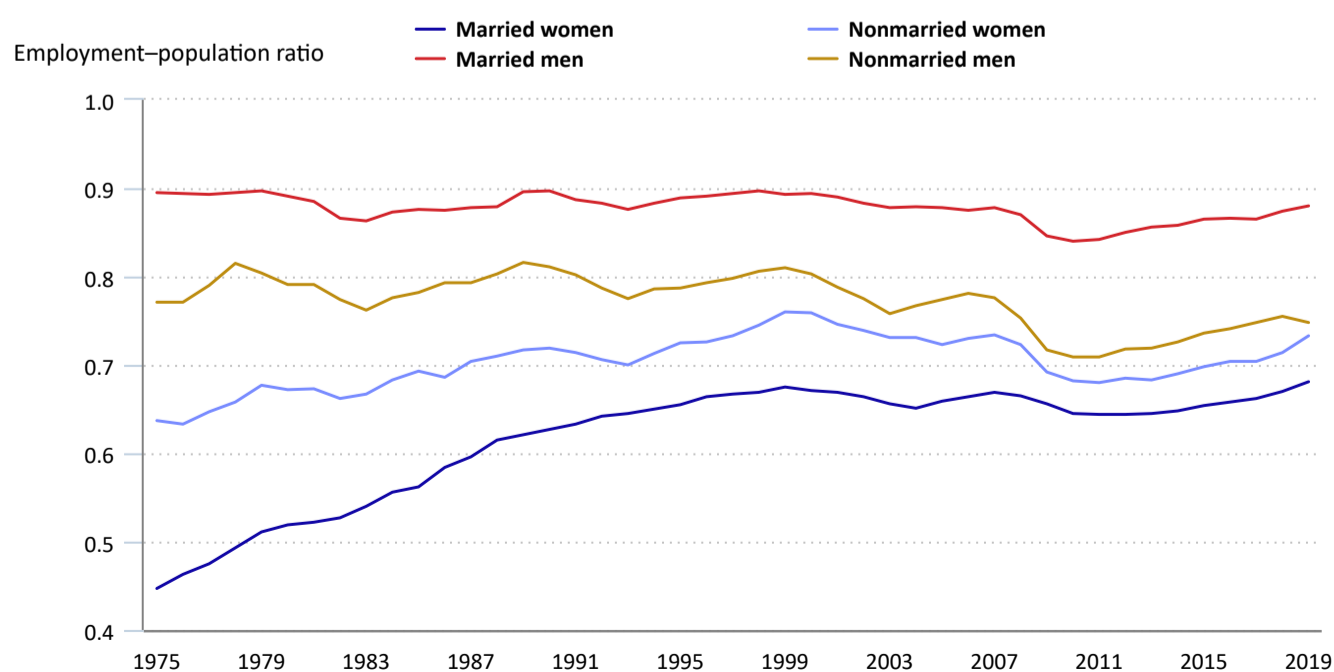
We begin by examining employment trends at both the extensive and intensive margins.

#### Employment–population ratios (extensive margin)

We first highlight a few important trends in E–P ratios, with a particular focus on the 2000–19 period. In chart 1, we plot E–P ratios for women and men by marital status. As is well recognized in the literature on labor market fluctuations, employment is strongly procyclical: E–P ratios went down during the recessions in the mid-1970s, the early 1980s, the early 1990s, the early 2000s, and the Great Recession of the late 2000s. These cyclical movements of E–P ratios often make it more complicated to distill long-term upward or downward trends. Following the Great Recession, for example, E–P ratios took nearly a decade to recover to their pre-2007 levels for all subgroups.

Nevertheless, even without using a sophisticated filtering method, chart 1 shows that men’s E–P ratios have no clear trend until around 2000, when they started to decline. For both married and nonmarried men, E–P ratios were lower in 2006 than they were in 2000, several years after the recession of the early 2000s. Also, the E–P ratio of nonmarried men in 2019 (a decade after the end of the Great Recession) was still lower than its prerecession level. As for women, E–P ratios steadily increased until 2000 for both married and nonmarried groups and, since then, have declined for nonmarried women but have stagnated for married women. In the 2000–2019 period, fitted linear regression lines reveal a flat trend for married women but negative slope coefficients for the other three groups.<sup>14</sup> Nonmarried men experienced a particularly large 5.5-percentage point reduction in the E–P ratio, from 0.803 in 2000 to 0.748 in 2019.<sup>15</sup> Meanwhile, married women showed distinct labor supply behavior from 2000 to 2019.

**Chart 1. Employment ratios, women and men, age 25–64, by marital status, 1975–2019**



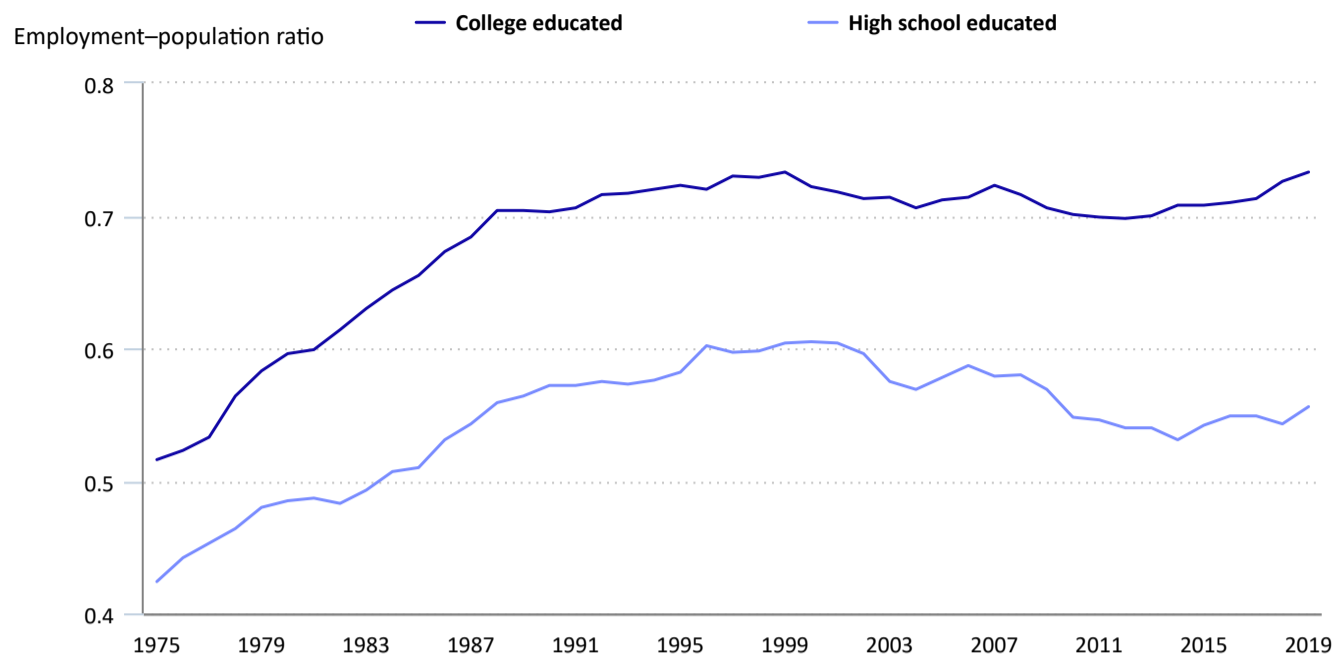
Click legend items to change data display. Hover over chart to view data.  
Source: U.S. Bureau of Labor Statistics.

[View Chart Data](#)



In chart 2, we decompose E–P ratios for groups of married women across education levels. The employment gap between college- and high school-educated married women has widened, particularly since 2000. From 2000 to 2019, while high school-educated women experienced a sizeable reduction in the E–P ratio of 4.9 percentage points (from 0.605 in 2000 to 0.556 in 2019), the ratio slightly increased for college-educated women, by 1.1 percentage points (from 0.721 in 2000 to 0.733 in 2019).<sup>16</sup>

**Chart 2. Employment ratios, married women, age 25–64, by education, 1975–2019**



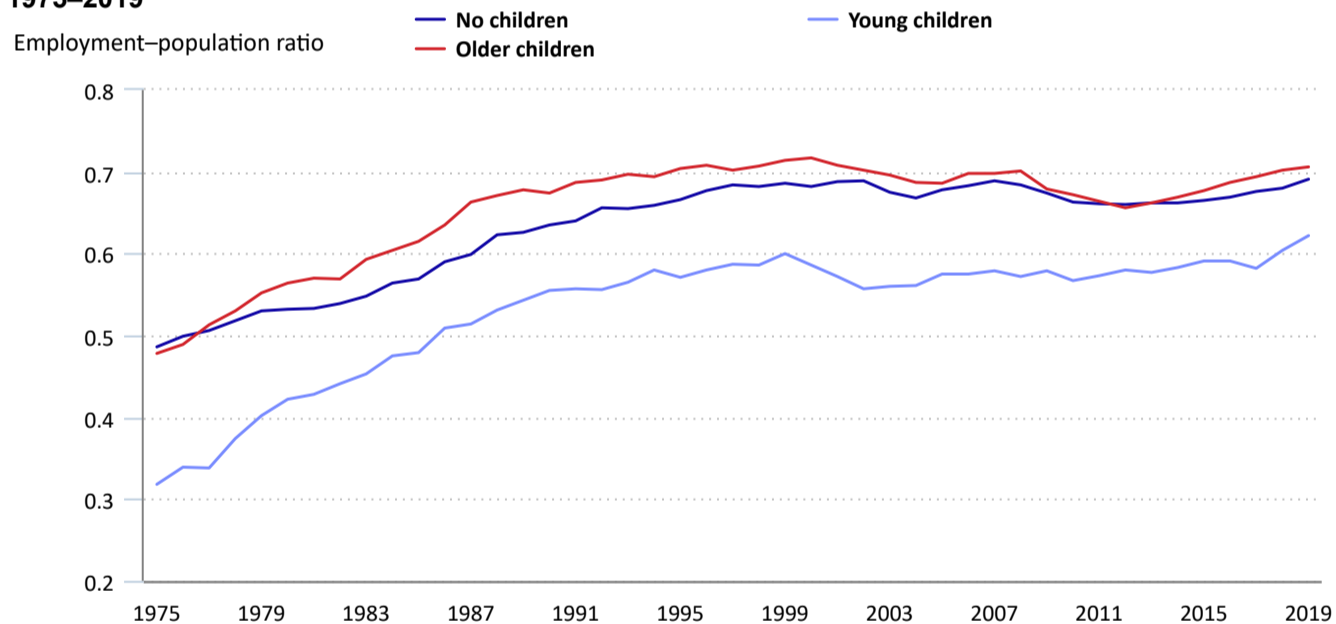
Click legend items to change data display. Hover over chart to view data.  
Source: U.S. Bureau of Labor Statistics.



[View Chart Data](#)

We next decompose E–P ratios of married women by the presence and age of children (in chart 3). In the recent period (2000–2019), we observe increased E–P ratios among married women with young children (a 3.6-percentage point increase from 0.586 to 0.622).<sup>17</sup> For the same period, we observe very few changes in E–P ratios for married women with no children or those with older children.

**Chart 3. Employment ratios, married women, age 25–64, by presence and age of youngest child, 1975–2019**



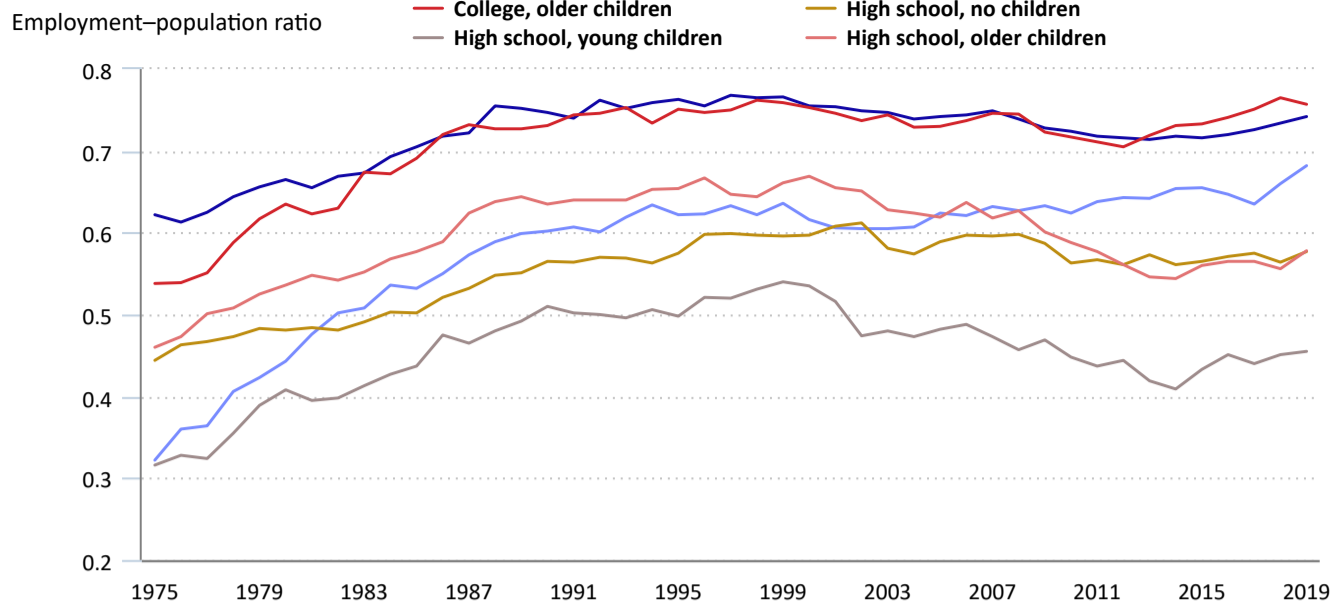
Click legend items to change data display. Hover over chart to view data.  
Note: Women with young children consist of the youngest child being under the age of 5 while those with older children consist of the youngest child between the ages of 5 and 14.  
Source: U.S. Bureau of Labor Statistics.



[View Chart Data](#)

In chart 4, we further decompose E–P ratios among married women by education and the presence and ages of children from 2000 to 2019. Among college-educated married women, mothers with young children had an increase in the E–P ratio of 6.6 percentage points during this period, whereas nonmothers and those with older children had small changes (under 2 percentage points). On the contrary, among those with a high school education, E–P ratios decreased for all subgroups since 2000 but more rapidly for mothers compared with nonmothers (approximately 8 percentage points for mothers compared with 2 percentage points for nonmothers).

**Chart 4. Employment ratios, married women, age 25–64, by education and presence and age of youngest child, 1975–2019**



Thus, the divergence of nonmothers, employment. The rapid increase in E-P gain—a 6.6-percentage college-educated mother the employment gap by percentage points in 2000 and ages of children. It is somewhat unique in that

Because our focus is on and nonmarried men as

Click legend items to change data display. Hover over chart to view data.  
 Note: Women with young children consist of the youngest child being under the age of 5 while those with older children consist of the youngest child between the ages of 5 and 14.  
 Source: U.S. Bureau of Labor Statistics.

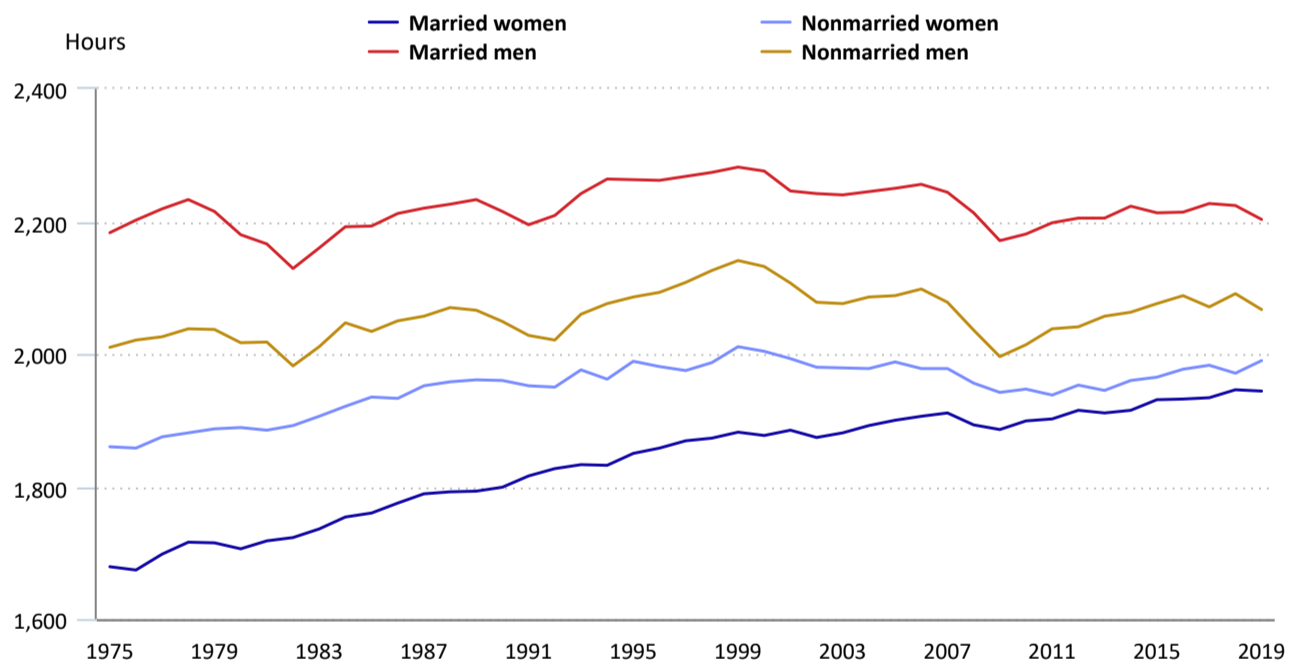
E-P ratios have generally decreased for all six subgroups in the recent period.<sup>19</sup>

**Hours worked (intensive margin)**

We now shift our focus to the intensive margin of labor supply among married women.<sup>20</sup> We report hours worked, for those with positive hours, in charts 5 through 8.

Chart 5 displays average annual hours worked by sex and by marital status. Throughout the entire period from 1975 to 2019, married men have consistently worked the longest hours, followed by nonmarried men as the next highest group. Nonmarried women, however, have supplied more labor hours than married women. Aside from procyclical adjustments in hours worked, all groups generally increased annual work hours between the mid-1970s and 1999. However, since then, while annual hours worked have decreased for both married and nonmarried men (by approximately 3.0 percentage points) and remained relatively constant for nonmarried women, they continue to rise for married women (with a 3.6-percentage point increase from 2000 to 2019).<sup>21</sup>

**Chart 5. Hours worked for women and men, age 25–64, by marital status, 1975–2019**



Click legend items to change data display. Hover over chart to view data.  
 Note: Data only include people who worked a positive number of hours.  
 Source: U.S. Bureau of Labor Statistics.

[View Chart Data](#)

Charts 6 through 8 decompose the upward trend in annual hours among groups of married women. As before, we classify married women by education levels and the presence and age of children. We find that the group heterogeneity observed in E-P ratios are qualitatively preserved in hours worked since 2000. In chart 6, for example, although annual hours worked increased for both college and high school groups, the gap between the two groups slightly widened between 2000 and 2019.

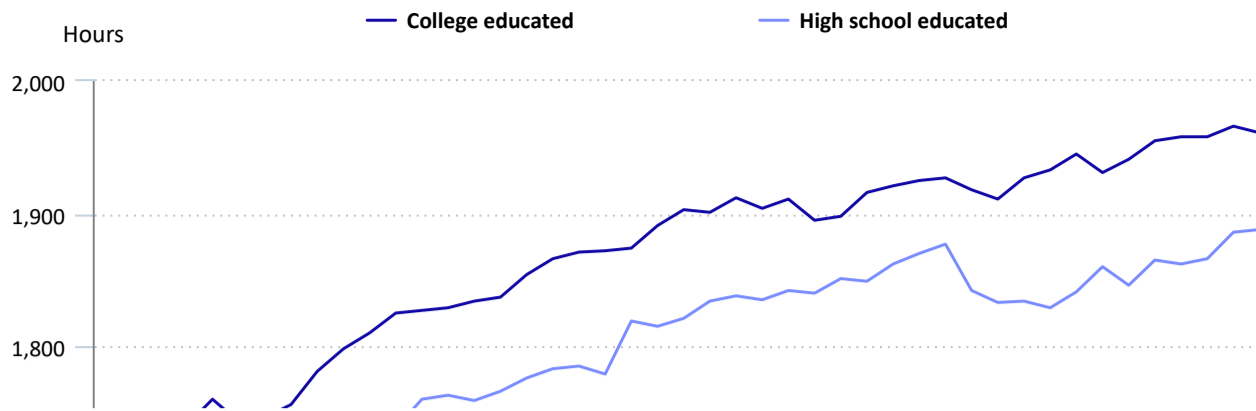
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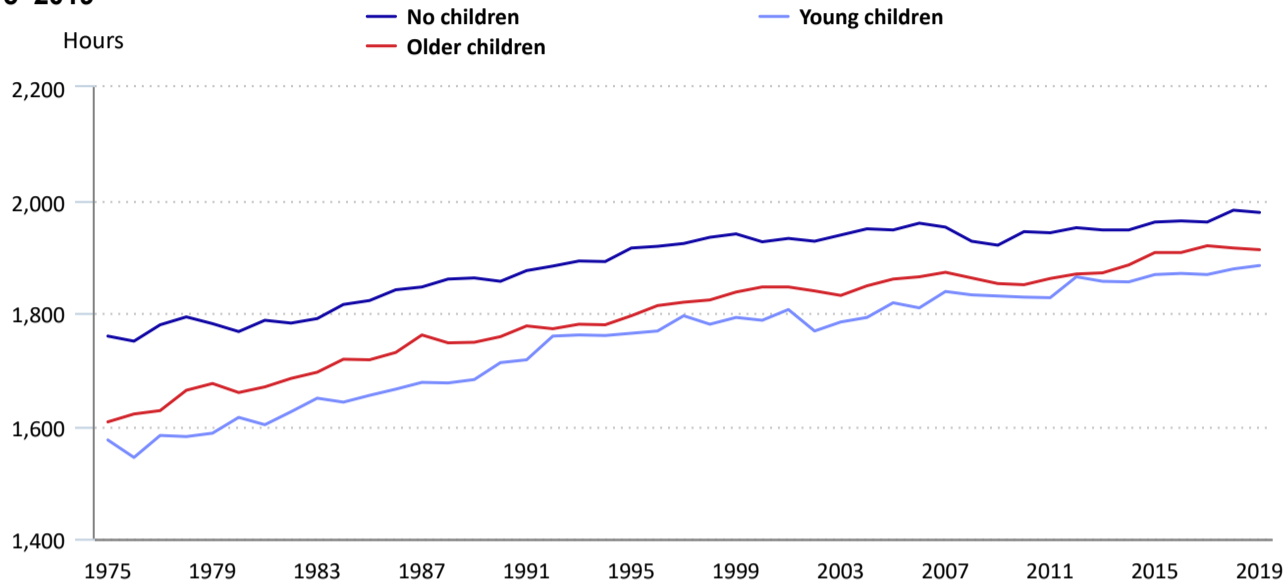
**Chart 6. Hours worked for married women, age 25–64, by education, 1975–2019**



In chart 7, hours worked for married women with young children (3.5 percentag

mothers, there was a with those with older

**Chart 7. Hours worked for married women, age 25–64, by presence and age of youngest child, 1975–2019**



Click legend items to change data display. Hover over chart to view data.

Note: Women with young children consist of the youngest child being under the age of 5 while those with older children consist of the youngest child between the ages of 5 and 14. Data only include people who worked a positive number of hours.

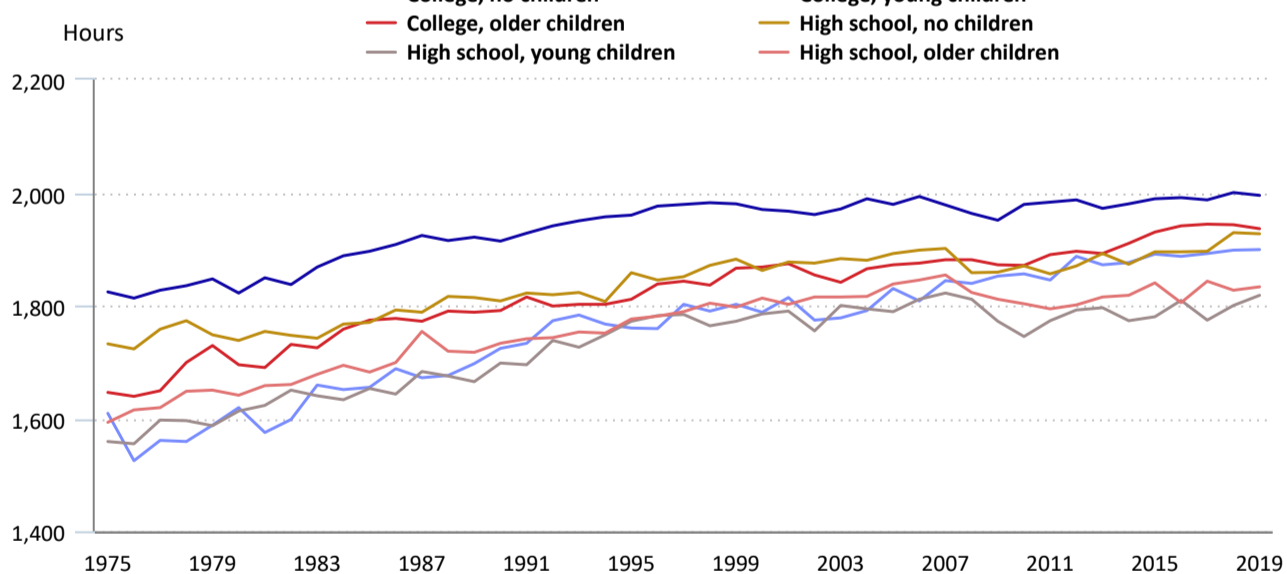
Source: U.S. Bureau of Labor Statistics.



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When education and children are considered in chart 8, the divergent behavior for hours worked between college and high school groups appears more evident among mothers than nonmothers. Although annual hours continued to increase from 2000 to 2019 for college-educated mothers, they started to fall and stagnate for high school-educated mothers in 2007. Because of the rapid increase in hours worked among college-educated mothers (especially those with young children), the gap in annual hours between college-educated nonmothers and mothers with younger children fell by almost half, from 182 hours in 2000 to 96 hours in 2019. For those with older children, the reduction was similar, from 102 to 60 hours over the same period.

**Chart 8. Hours worked for married women, age 25–64, by education and presence and age of children**



Click legend items to change data display. Hover over chart to view data.

Note: Women with young children consist of the youngest child being under the age of 5 while those with older children consist of the youngest child between the ages of 5 and 14. Data only include people who worked a positive number of hours.

Source: U.S. Bureau of Labor Statistics.

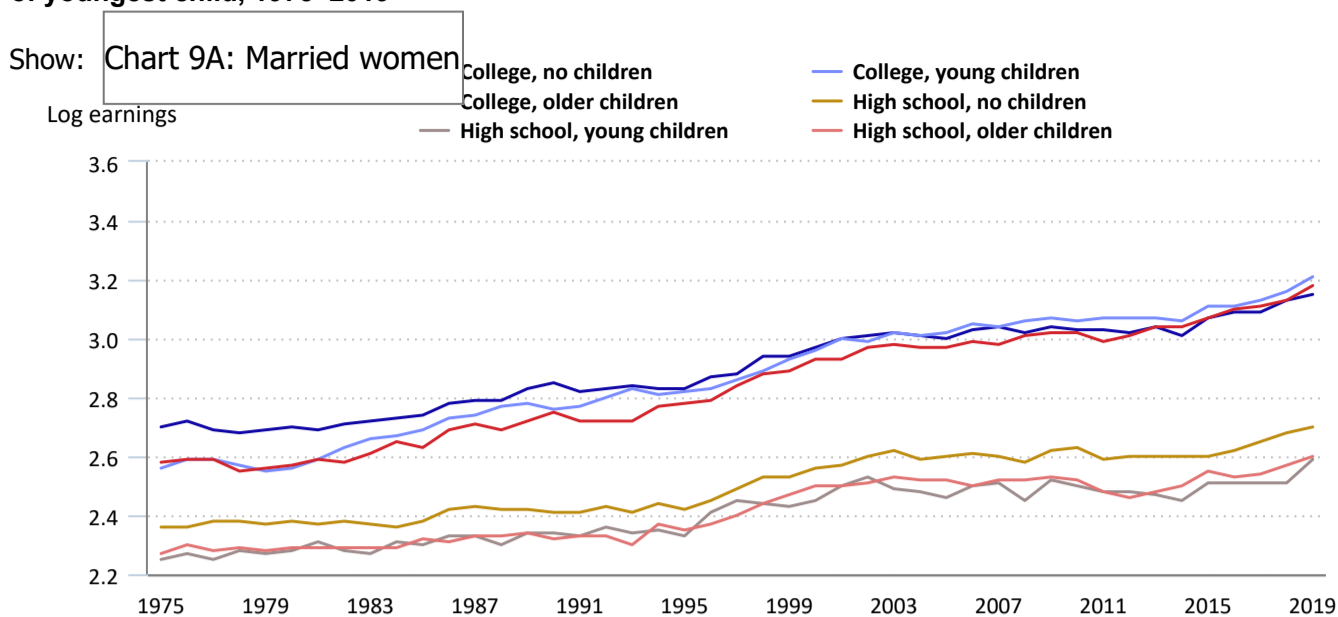


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### Real hourly earnings

In this section, we compare trends in real hourly earnings across different demographic groups. Chart 9 plots real hourly earnings (reported in log 2012 dollars) during the 1975–2019 period for married women and married men by education and by children. For married women, chart 9 corroborates the well-known rise in women’s real earnings, which is particularly pronounced among college-educated women. Over the period as a whole, real hourly earnings of college-educated married women rose at a rate of 0.13 per decade (in log dollars); the change is both economically and statistically significant. This strong upward trend in real hourly earnings makes it complicated to tease out trend movements from cyclical adjustments because real earnings are procyclical and the impacts of economic downturns on nominal earnings are heterogeneous.<sup>22</sup>

**Chart 9. Real earnings (logarithm of 2012 dollars), age 25–64, by education and presence and age of youngest child, 1975–2019**



Click legend items to change data display. Hover over chart to view data.  
 Note: Women with young children consist of the youngest child being under the age of 5 while those with older children consist of the youngest child between the ages of 5 and 14.  
 Source: U.S. Bureau of Labor Statistics.



[View Chart Data](#)

Some interesting patterns emerge regarding group heterogeneity in trend movements in married women's real hourly earnings. First, focusing on the period from 2000 to 2019, except for the period of the Great Recession and its aftermath (2007–13), real hourly earnings consistently increased for all subgroups of college-educated married women.<sup>23</sup> However, for high school-educated women, real hourly earnings stagnated in 2002 (several years before the Great Recession) until 2013, after which they began to show an upward trend. As a result, earning gaps between college- and high school-educated married women have further widened. Second, among college-educated married women, real hourly earnings have grown faster for mothers (at a rate of 0.25 from 2000 to 2019) than nonmothers (at a rate of 0.18).<sup>24</sup> Because of this faster earnings growth, the real earnings gap between nonmothers and mothers with young children closed entirely in 2004 and has reversed since then. A similar crossover occurred between nonmothers and mothers with older children starting in 2013. Although not reported here, the real earnings gap between college-educated fathers and college-educated mothers narrowed at a faster rate compared with the earnings gap between college-educated nonfathers and college-educated nonmothers. Third, for high school-educated married mothers, there was no earning catch-up or crossover observed during the sample period. This lack of catch-up suggests that real earning trends among married women differ with the presence and age of children and with education level.

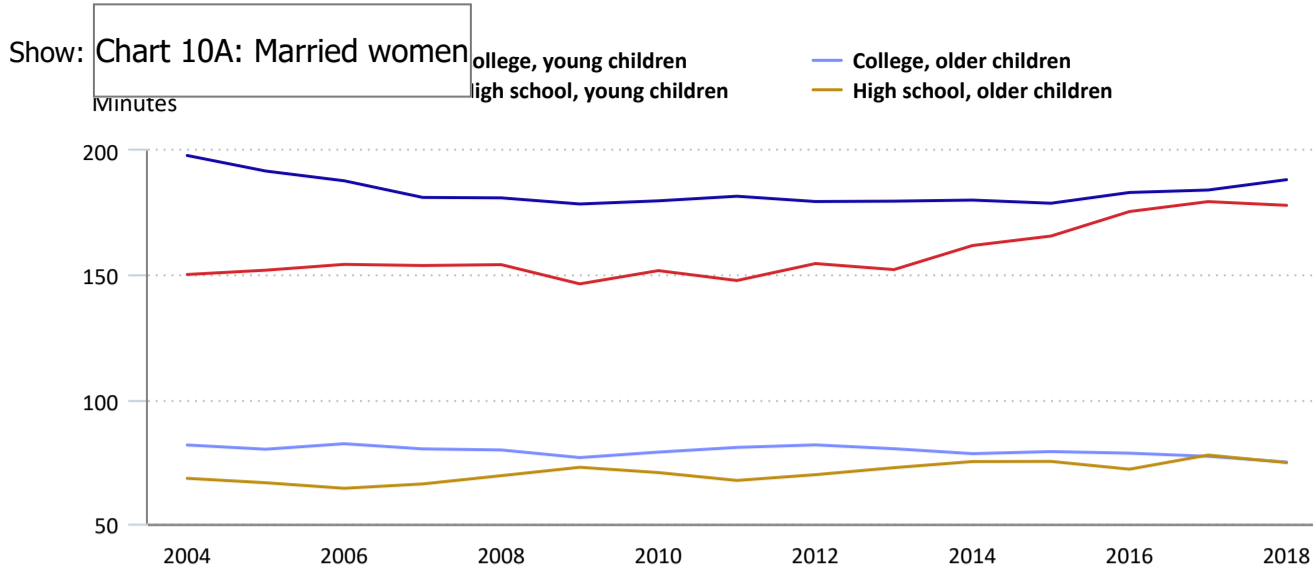
As for married men, real hourly earnings appear to have generally stagnated from 1975 to 2013. Similar to women's hourly earnings, men's real hourly earnings have also increased for both high school- and college-educated men since 2013, albeit at a faster rate among college-educated men. In contrast to college-educated married women, trend movements in real hourly earnings were similar between college-educated fathers and nonfathers.

### Time use

Among the demographic groups studied in this article, college-educated married mothers had the greatest gains in E–P ratios, hours worked, and real hourly earnings in recent decades, compared with various groups of married men who experienced declines in E–P ratios and hours worked, along with stagnant earnings. Since participation and hours decisions are jointly made within a household, we turn to the ATUS data to explore how many minutes people spent on childcare and unpaid domestic work per day (averaged over all days of the week).<sup>25</sup> To maintain consistency with our previous analysis, we compare married men and women by education and by the presence and age(s) of children.

Chart 10 shows the trends in time spent on childcare per day. Married women dedicated more time to childcare than married men. Regardless of sex, those with young children allocated the highest amount of time to childcare.

**Chart 10. Minutes per day spent on childcare, by education and age of children, 2004–18 (3-year moving averages)**



Click legend items to change data display. Hover over chart to view data.  
 Note: Women with young children consist of the youngest child being under the age of 5 while those with older children consist of the youngest child between the ages of 5 and 14. The 3-year moving average is constructed from American Time Use Survey data from 2003 to 2019.  
 Source: U.S. Bureau of Labor Statistics.

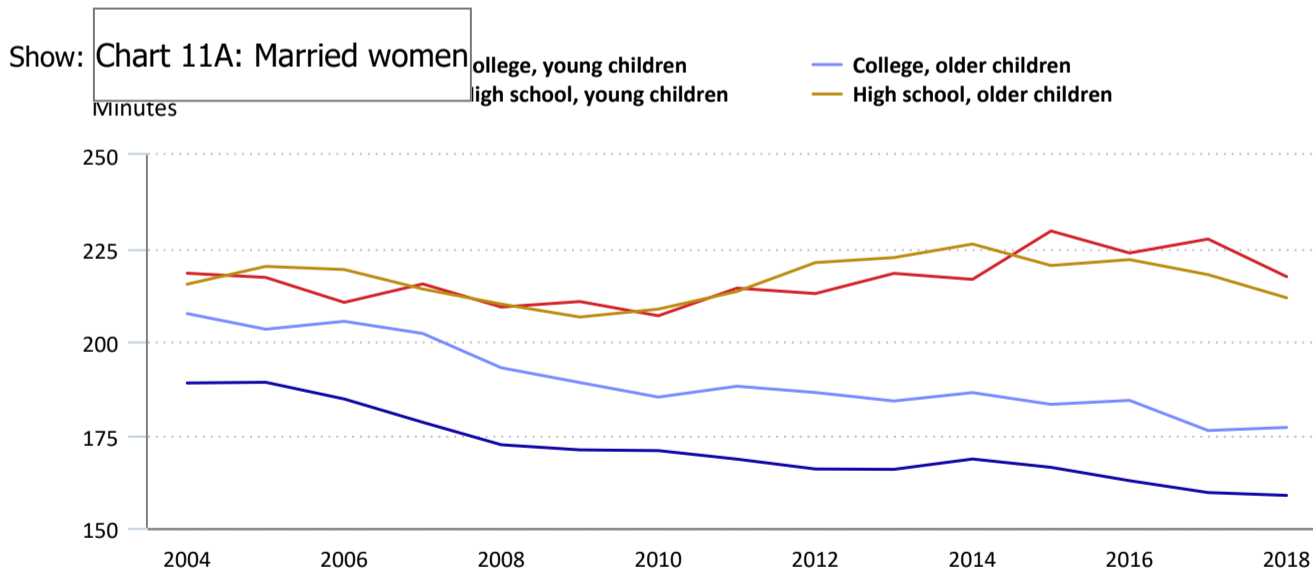


[View Chart Data](#)

College-educated mothers with young children reduced their childcare time by 5 percent, from 198 minutes per day in 2004 to 188 in 2018. At the same time, college-educated mothers with older children reduced their childcare time by 8 percent, from 82 to 75 minutes.<sup>26</sup> This pattern suggests that, to some extent, the increased time spent working for this group was associated with a modest reduction in hours devoted to childcare. On the other hand, college-educated fathers with young children increased their childcare time by about 10 percent, from 94 minutes per day in 2004 to 104 in 2018. College-educated fathers with older children did not have a statistically significant change. This trend is more pronounced for college-educated fathers than high school-educated fathers. Thus, there has been some substitution of childcare from college-educated mothers to college-educated fathers, although college-educated mothers still spend nearly twice as much time on childcare (an average of 188 minutes per day compared with 104 minutes per day for college-educated fathers in 2018).

In chart 11, we plot the time spent on unpaid domestic work for married women and men with different ages of children. Among college-educated married mothers, regardless of the ages of children, there was a steady decline in the number of minutes spent per day on domestic work from 2004 to 2018, resulting in a 15-percent reduction.<sup>27</sup> College-educated women with older children spent more time on domestic work than those with young children (approximately 20 more minutes per day). As with childcare, women spent nearly twice as much time per day on domestic work than men. Similar to college-educated married mothers, college-educated married fathers with young children reduced their time in unpaid domestic work by approximately 12 percent from 2004 to 2018.<sup>28</sup> To summarize, college-educated married mothers are now working more and are spending slightly less time on childcare and unpaid domestic work than they did in 2004.<sup>29</sup>

**Chart 11. Minutes per day spent on unpaid domestic work, by education and age of children, 2004–18 (3-year moving averages)**



Click legend items to change data display. Hover over chart to view data.  
 Note: Women with young children consist of the youngest child being under the age of 5 while those with older children consist of the youngest child between the ages of 5 and 14. The 3-year moving average is constructed from American Time Use Survey data from 2003 to 2019.  
 Source: U.S. Bureau of Labor Statistics.



[View Chart Data](#)

## Summary

We document that married women’s labor supply has remained fairly steady since 2000 while men and nonmarried women have reduced their labor supply. Using data from the Current Population Survey and the American Time Use Survey, we examine recent trends in employment–population ratios, annual hours worked, real hourly earnings, and time allocation among married men and women. We disaggregate groups of married women and men based on education levels and the presence and ages of children.

Our most important finding is that only college-educated mothers (especially those with young children) have increased their employment since 2000, while all other groups—college-educated nonmothers, high school-educated married women (mothers and nonmothers), and all subgroups of men—reduced their

employment. Among high school-educated married women, mothers have reduced their employment more rapidly compared with nonmothers. These observations are qualitatively similar when analyzing data on hours worked: college-educated married mothers have increased their annual hours worked since 2000, while all other groups of married women experience either small increases or stagnation in annual hours.

In addition, college-educated married mothers, especially those with young children, have experienced the most rapid hourly earnings growth over the entire sample period (1975–2019). As a result, the gap in real hourly earnings between college-educated nonmothers and mothers with young children completely closed in 2004. Since then, college-educated mothers with young children have enjoyed the highest hourly earnings among all groups of married women.

By examining the time use of married men and women, we find that college-educated women spent more time on paid work and less time on childcare and housework in the late 2010s compared with the early 2000s. Concurrently, college-educated men with young children spent more time on childcare in the late 2010s compared with the early 2000s, suggesting some substitution of childcare from college-educated mothers to college-educated fathers.

#### Appendix: Standard errors associated with the data

For the sake of completeness, this appendix provides the standard errors associated with the measurements used in the article.

Table A-1. Standard errors for chart 1

Period	Married women	Nonmarried women	Married men	Nonmarried men
1975	0.0032	0.0055	0.0020	0.0062
1976	0.0030	0.0050	0.0018	0.0055
1977	0.0030	0.0049	0.0019	0.0052
1978	0.0030	0.0048	0.0018	0.0049
1979	0.0028	0.0043	0.0017	0.0045
1980	0.0028	0.0043	0.0017	0.0044
1981	0.0030	0.0044	0.0019	0.0045
1982	0.0029	0.0044	0.0020	0.0046
1983	0.0030	0.0044	0.0020	0.0046
1984	0.0029	0.0042	0.0020	0.0045
1985	0.0030	0.0042	0.0020	0.0043
1986	0.0030	0.0042	0.0020	0.0043
1987	0.0029	0.0041	0.0020	0.0041
1988	0.0030	0.0042	0.0020	0.0042
1989	0.0029	0.0040	0.0018	0.0038
1990	0.0029	0.0039	0.0018	0.0038
1991	0.0029	0.0039	0.0019	0.0039
1992	0.0029	0.0040	0.0020	0.0040
1993	0.0029	0.0040	0.0020	0.0041
1994	0.0029	0.0040	0.0020	0.0040
1995	0.0032	0.0042	0.0021	0.0043
1996	0.0031	0.0041	0.0021	0.0041
1997	0.0031	0.0041	0.0020	0.0041
1998	0.0031	0.0040	0.0020	0.0040
1999	0.0031	0.0039	0.0020	0.0039
2000	0.0024	0.0031	0.0016	0.0033
2001	0.0024	0.0032	0.0016	0.0033
2002	0.0024	0.0032	0.0017	0.0034
2003	0.0025	0.0032	0.0017	0.0035
2004	0.0025	0.0032	0.0017	0.0035
2005	0.0025	0.0033	0.0017	0.0034
2006	0.0025	0.0032	0.0017	0.0034
2007	0.0025	0.0032	0.0017	0.0034
2008	0.0025	0.0032	0.0018	0.0034
2009	0.0025	0.0033	0.0019	0.0035
2010	0.0026	0.0033	0.0020	0.0035
2011	0.0026	0.0033	0.0020	0.0035
2012	0.0026	0.0033	0.0020	0.0034
2013	0.0026	0.0033	0.0020	0.0035
2014	0.0026	0.0033	0.0020	0.0034
2015	0.0027	0.0033	0.0020	0.0035
2016	0.0027	0.0033	0.0020	0.0035
2017	0.0027	0.0034	0.0020	0.0035
2018	0.0027	0.0034	0.0020	0.0035
2019	0.0029	0.0035	0.0021	0.0037

Source: U.S. Bureau of Labor Statistics.

Table A-2. Standard errors for chart 2

Period	College educated	High school educated
1975	0.0065	0.0037
1976	0.0058	0.0034
1977	0.0058	0.0035
1978	0.0056	0.0036
1979	0.0050	0.0033
1980	0.0050	0.0034
1981	0.0052	0.0036
1982	0.0050	0.0036
1983	0.0049	0.0036
1984	0.0048	0.0037
1985	0.0048	0.0037
1986	0.0046	0.0038
1987	0.0045	0.0038
1988	0.0046	0.0039
1989	0.0043	0.0038
1990	0.0043	0.0039
1991	0.0041	0.0040
1992	0.0040	0.0041
1993	0.0040	0.0043
1994	0.0039	0.0043
1995	0.0042	0.0046
1996	0.0041	0.0046
1997	0.0041	0.0047
1998	0.0040	0.0047
1999	0.0039	0.0047
2000	0.0030	0.0039
2001	0.0030	0.0039
2002	0.0030	0.0039
2003	0.0030	0.0040
2004	0.0031	0.0041
2005	0.0030	0.0042
2006	0.0030	0.0042
2007	0.0030	0.0043
2008	0.0030	0.0043
2009	0.0030	0.0043
2010	0.0030	0.0045
2011	0.0031	0.0046
2012	0.0030	0.0046
2013	0.0031	0.0047
2014	0.0031	0.0047
2015	0.0032	0.0050
2016	0.0031	0.0050
2017	0.0032	0.0052
2018	0.0031	0.0052
2019	0.0033	0.0057

Source: U.S. Bureau of Labor Statistics.

Table A-3. Standard errors for chart 3

Period	No children	Young children	Older children
1975	0.0048	0.0064	0.0057
1976	0.0044	0.0061	0.0052
1977	0.0044	0.0063	0.0053
1978	0.0044	0.0064	0.0054
1979	0.0041	0.0060	0.0050
1980	0.0040	0.0060	0.0051
1981	0.0042	0.0063	0.0054
1982	0.0042	0.0062	0.0054
1983	0.0042	0.0062	0.0055
1984	0.0042	0.0062	0.0055
1985	0.0042	0.0063	0.0055
1986	0.0042	0.0063	0.0056
1987	0.0041	0.0063	0.0055
1988	0.0042	0.0066	0.0056
1989	0.0041	0.0062	0.0054
1990	0.0041	0.0061	0.0054
1991	0.0041	0.0062	0.0054
1992	0.0041	0.0062	0.0054
1993	0.0042	0.0063	0.0054
1994	0.0042	0.0063	0.0054
1995	0.0044	0.0069	0.0058
1996	0.0044	0.0068	0.0057
1997	0.0043	0.0068	0.0057
1998	0.0043	0.0069	0.0057
1999	0.0043	0.0069	0.0056
2000	0.0037	0.0050	0.0040
2001	0.0036	0.0051	0.0041
2002	0.0036	0.0052	0.0041
2003	0.0036	0.0052	0.0042
2004	0.0037	0.0053	0.0043
2005	0.0037	0.0053	0.0044
2006	0.0036	0.0053	0.0044
2007	0.0036	0.0054	0.0044
2008	0.0036	0.0053	0.0044
2009	0.0037	0.0053	0.0045
2010	0.0037	0.0054	0.0047
2011	0.0037	0.0055	0.0048
2012	0.0037	0.0055	0.0047
2013	0.0037	0.0056	0.0048
2014	0.0038	0.0057	0.0048
2015	0.0039	0.0059	0.0049
2016	0.0039	0.0058	0.0049
2017	0.0039	0.0060	0.0050
2018	0.0039	0.0060	0.0050
2019	0.0041	0.0063	0.0053

Source: U.S. Bureau of Labor Statistics.

Table A-4. Standard errors for chart 4

Period	College, no children	College, young children	College, older children	High school, no children	High school, young children	High school, older children
1975	0.0097	0.0117	0.0119	0.0054	0.0076	0.0065
1976	0.0087	0.0106	0.0106	0.0050	0.0074	0.0059
1977	0.0086	0.0107	0.0105	0.0051	0.0077	0.0061
1978	0.0082	0.0107	0.0102	0.0051	0.0079	0.0063
1979	0.0074	0.0096	0.0092	0.0048	0.0076	0.0059
1980	0.0073	0.0096	0.0093	0.0048	0.0076	0.0060
1981	0.0075	0.0102	0.0098	0.0050	0.0080	0.0065
1982	0.0072	0.0099	0.0095	0.0051	0.0080	0.0065
1983	0.0071	0.0097	0.0092	0.0051	0.0080	0.0068
1984	0.0069	0.0094	0.0091	0.0051	0.0082	0.0068
1985	0.0067	0.0094	0.0091	0.0052	0.0084	0.0069
1986	0.0065	0.0093	0.0088	0.0052	0.0085	0.0071
1987	0.0064	0.0092	0.0086	0.0052	0.0085	0.0071
1988	0.0063	0.0095	0.0088	0.0054	0.0090	0.0073
1989	0.0060	0.0089	0.0081	0.0053	0.0085	0.0071
1990	0.0060	0.0087	0.0081	0.0053	0.0085	0.0072
1991	0.0057	0.0086	0.0076	0.0056	0.0090	0.0076
1992	0.0055	0.0084	0.0074	0.0057	0.0092	0.0076
1993	0.0056	0.0083	0.0073	0.0059	0.0094	0.0080
1994	0.0054	0.0082	0.0073	0.0060	0.0097	0.0080
1995	0.0058	0.0090	0.0077	0.0065	0.0104	0.0085
1996	0.0057	0.0090	0.0077	0.0065	0.0103	0.0085
1997	0.0056	0.0088	0.0075	0.0064	0.0106	0.0087
1998	0.0055	0.0089	0.0073	0.0065	0.0109	0.0087
1999	0.0054	0.0088	0.0073	0.0065	0.0109	0.0087
2000	0.0046	0.0062	0.0050	0.0057	0.0085	0.0065
2001	0.0045	0.0064	0.0051	0.0057	0.0086	0.0066
2002	0.0045	0.0063	0.0052	0.0057	0.0087	0.0068
2003	0.0045	0.0064	0.0052	0.0058	0.0089	0.0070
2004	0.0046	0.0064	0.0053	0.0059	0.0092	0.0072
2005	0.0045	0.0063	0.0053	0.0060	0.0093	0.0074
2006	0.0044	0.0064	0.0053	0.0060	0.0092	0.0075
2007	0.0043	0.0064	0.0052	0.0060	0.0096	0.0077
2008	0.0043	0.0063	0.0052	0.0060	0.0095	0.0077
2009	0.0044	0.0063	0.0054	0.0062	0.0094	0.0080
2010	0.0044	0.0063	0.0055	0.0063	0.0096	0.0083
2011	0.0045	0.0064	0.0056	0.0063	0.0099	0.0086
2012	0.0044	0.0065	0.0056	0.0065	0.0101	0.0086
2013	0.0045	0.0065	0.0055	0.0065	0.0104	0.0088
2014	0.0045	0.0065	0.0055	0.0066	0.0105	0.0088
2015	0.0046	0.0067	0.0056	0.0069	0.0112	0.0092
2016	0.0046	0.0067	0.0055	0.0068	0.0112	0.0095
2017	0.0046	0.0069	0.0056	0.0071	0.0117	0.0097
2018	0.0045	0.0067	0.0055	0.0071	0.0120	0.0098
2019	0.0047	0.0070	0.0059	0.0077	0.0129	0.0109

Source: U.S. Bureau of Labor Statistics.

Table A-5. Standard errors for chart 5

Period	Married women	Nonmarried women	Married men	Nonmarried men
1975	5.8499	7.9903	4.0569	11.3103
1976	5.3036	7.0702	3.6567	9.6661
1977	5.3959	7.1088	3.7839	8.9650
1978	5.2537	6.8293	3.6776	8.8203
1979	4.7137	5.9801	3.2586	7.7291
1980	4.5977	5.8871	3.3842	7.4909
1981	4.8354	6.1354	3.6169	7.7782
1982	4.8069	6.1134	3.7331	7.7347
1983	4.6895	6.0777	3.7187	7.6257
1984	4.6715	5.8389	3.6222	7.3262
1985	4.7399	5.9955	3.6881	7.0376
1986	4.6881	6.0077	3.7841	7.1692
1987	4.5836	5.8477	3.7081	7.0141
1988	4.6537	6.0366	3.8254	7.0408
1989	4.3751	5.7423	3.5842	6.6177
1990	4.4252	5.6201	3.6221	6.4443
1991	4.3985	5.7821	3.7750	6.6233
1992	4.4447	5.7908	3.8442	6.7930
1993	4.6274	5.9603	4.0581	6.8869
1994	4.5579	5.8820	3.9739	6.7268
1995	4.8361	6.2650	4.1965	7.1588
1996	4.8449	6.0490	4.1060	6.6860
1997	4.7293	5.9540	4.0571	6.7996
1998	4.6580	5.8823	3.9544	6.2928
1999	4.6389	5.7612	3.9758	6.3808
2000	3.5461	4.4208	3.0116	5.3131
2001	3.5449	4.4656	3.0048	5.1982
2002	3.5122	4.5799	3.1119	5.3824
2003	3.5887	4.6146	3.0857	5.5107
2004	3.5903	4.6422	3.1214	5.3029
2005	3.6373	4.7526	3.1314	5.2349
2006	3.6218	4.4832	3.1162	5.3066
2007	3.6113	4.5243	3.1592	5.2463
2008	3.5816	4.6234	3.2216	5.3700
2009	3.6338	4.6339	3.3806	5.4027
2010	3.6829	4.7000	3.4350	5.4805
2011	3.7927	4.5941	3.4912	5.4390
2012	3.7519	4.7591	3.3622	5.3668
2013	3.7281	4.6582	3.3030	5.1275
2014	3.7908	4.5337	3.3193	5.2090
2015	3.8385	4.7316	3.3156	5.2726
2016	3.8163	4.7850	3.2905	5.1377
2017	3.8623	4.7145	3.3086	5.0302
2018	3.8487	4.5348	3.2657	5.1779
2019	3.9500	4.8376	3.3468	5.3110

Source: U.S. Bureau of Labor Statistics.

Table A-6. Standard errors for chart 6

Period	College educated	High school educated
1975	10.9404	6.9079
1976	9.6586	6.3410
1977	9.6635	6.5004
1978	9.2272	6.3865
1979	8.2212	5.7350
1980	7.8703	5.6538
1981	8.0071	6.0601
1982	7.8904	6.0487
1983	7.5708	5.9498
1984	7.4928	5.9478
1985	7.4656	6.1027
1986	7.1642	6.1722
1987	7.0191	6.0341
1988	7.0764	6.1582
1989	6.6384	5.7839
1990	6.6230	5.9198
1991	6.1814	6.2314
1992	6.0597	6.5045
1993	6.2912	6.7882
1994	6.1796	6.6827
1995	6.4925	7.2269
1996	6.5138	7.2102
1997	6.3614	7.0106
1998	6.1769	7.0565
1999	6.1398	7.0216
2000	4.6277	5.4719
2001	4.5526	5.6181
2002	4.4789	5.6381
2003	4.5910	5.7142
2004	4.5305	5.8440
2005	4.5149	6.1170
2006	4.4681	6.1659
2007	4.4426	6.1738
2008	4.3869	6.1588
2009	4.4615	6.2049
2010	4.4521	6.4837
2011	4.6066	6.5653
2012	4.4584	6.8581
2013	4.4465	6.7852
2014	4.4760	7.0508
2015	4.5259	7.1639
2016	4.4824	7.1885
2017	4.4671	7.6029
2018	4.4720	7.4826
2019	4.5039	8.1580

Source: U.S. Bureau of Labor Statistics.

Table A-7. Standard errors for chart 7

Period	No children	Young children	Older children
1975	7.8509	15.7141	10.1465
1976	7.1955	14.1346	9.1193
1977	7.4939	14.3333	9.0088
1978	7.2038	13.2860	9.1123
1979	6.3907	11.9192	8.3473
1980	6.1862	11.5621	8.2854
1981	6.6355	11.9448	8.5174
1982	6.6852	11.3461	8.5671
1983	6.5040	11.1455	8.3741
1984	6.4631	10.9197	8.4101
1985	6.5288	10.9045	8.6942
1986	6.4127	10.6291	8.7628
1987	6.2919	10.6328	8.4072
1988	6.2764	10.8452	8.7280
1989	5.9982	10.1662	7.9682
1990	6.0012	10.3066	8.2522
1991	6.0013	10.1501	8.1752
1992	6.1957	9.9449	8.1770
1993	6.3198	10.5046	8.7048
1994	6.4460	10.2733	8.1137
1995	6.7076	10.9051	8.8815
1996	6.7608	11.0655	8.7488
1997	6.5851	10.6921	8.6589
1998	6.3899	10.9100	8.5096
1999	6.3811	10.5318	8.6294
2000	5.3428	7.7600	5.9269
2001	5.2255	8.0120	6.0054
2002	5.0619	8.0295	6.0816
2003	5.1817	8.2333	6.1562
2004	5.1099	8.2051	6.3374
2005	5.2394	8.1521	6.3986
2006	5.1062	8.1597	6.5612
2007	5.1318	8.2371	6.4258
2008	5.1432	8.0214	6.3374
2009	5.2397	7.8303	6.5561
2010	5.1684	8.0922	6.8667
2011	5.2683	8.4994	7.1175
2012	5.2983	8.1741	6.9662
2013	5.2111	8.2322	6.9944
2014	5.3781	8.4079	6.9011
2015	5.4804	8.5368	6.9034
2016	5.4087	8.3354	7.0330
2017	5.4813	8.7435	6.9093
2018	5.3652	8.6065	7.1781
2019	5.4845	8.8121	7.4360

Source: U.S. Bureau of Labor Statistics.

Table A-8. Standard errors for chart 8

Period	College, no children	College, young children	College, older children	High school, no children	High school, young children	High school, older children
1975	14.3421	28.6318	19.7334	9.3469	18.7896	11.8199
1976	12.6744	22.8932	17.9240	8.6957	17.9520	10.5897
1977	13.0944	22.9158	17.2852	9.1089	18.3642	10.5542
1978	12.1404	21.4608	17.3661	8.9191	16.8888	10.6705
1979	11.0838	19.0926	15.0805	7.7821	15.2362	9.9893
1980	10.4760	17.8496	15.0924	7.6357	15.1804	9.8892
1981	10.8391	18.1392	14.5816	8.3383	15.8531	10.4814
1982	10.9104	16.9126	14.7823	8.4197	15.2579	10.4884
1983	10.4523	16.5331	14.0454	8.2323	15.0749	10.4054
1984	10.3331	16.0205	14.0565	8.2133	14.8679	10.4619
1985	10.3622	15.5430	14.2068	8.3195	15.3067	10.9436
1986	9.8642	15.3754	13.5452	8.3700	14.6844	11.4377
1987	9.7309	14.8644	13.0362	8.1494	15.2179	10.9933
1988	9.3748	15.2165	14.2079	8.3918	15.4606	11.0019
1989	9.1874	14.2253	12.3851	7.8430	14.5192	10.3664
1990	9.0174	14.5034	12.5905	7.9733	14.6298	10.8944
1991	8.4158	13.5239	11.8013	8.4830	15.3493	11.2859
1992	8.3948	13.1798	11.3256	9.0615	15.1118	11.7880
1993	8.5475	13.9089	11.9247	9.2664	15.8260	12.7158
1994	8.6462	13.3755	11.3143	9.5002	15.8960	11.5817
1995	8.9654	14.1607	12.0764	10.0233	16.9697	13.0988
1996	8.9824	14.6130	11.8761	10.1273	16.8071	12.9068
1997	8.8168	13.7988	11.9230	9.7672	16.7990	12.4890
1998	8.4906	13.9555	11.3331	9.5991	17.4263	12.8665
1999	8.4580	13.3122	11.6826	9.6149	17.1798	12.6879
2000	7.0822	9.7446	7.6862	8.0111	12.7475	9.2787
2001	6.8006	9.9716	7.6825	8.0935	13.4214	9.5825
2002	6.4707	9.9322	7.8225	8.0659	13.5265	9.6478
2003	6.6699	10.0401	7.9791	8.1440	14.3472	9.6105
2004	6.5349	9.9063	7.9639	8.0768	14.5686	10.4398
2005	6.6238	9.6448	7.9336	8.4947	15.2338	10.8131
2006	6.3314	9.7209	8.1390	8.5489	15.0157	11.0815
2007	6.4295	9.6013	7.9217	8.4434	16.0262	10.9633
2008	6.3870	9.3161	7.8522	8.5679	15.7667	10.6710
2009	6.5772	9.2004	7.9969	8.5456	14.7983	11.3945
2010	6.3581	9.3555	8.3060	8.7413	15.9053	12.1273
2011	6.5043	9.8574	8.6534	8.7762	16.6429	12.3061
2012	6.4024	9.3584	8.2489	9.2834	16.6125	12.8804
2013	6.4232	9.3249	8.1553	8.7801	17.3883	13.5096
2014	6.5064	9.3660	8.1432	9.4205	18.8159	12.8580
2015	6.6043	9.5357	8.1543	9.6932	18.8368	12.7944
2016	6.5158	9.3595	8.1699	9.5797	18.1687	13.4988
2017	6.5343	9.6485	7.8199	9.9595	20.1250	14.4650
2018	6.4297	9.5515	8.1499	9.5743	19.6009	14.8890
2019	6.3556	9.8274	8.3781	10.7887	19.7085	15.8698

Source: U.S. Bureau of Labor Statistics.

Table A-9. Standard errors for chart 9

Period	Women						Men					
	College, no children	College, young children	College, older children	High school, no children	High school, young children	High school, older children	College, no children	College, young children	College, older children	High school, no children	High school, young children	High school, older children
1975	0.0128	0.0267	0.0188	0.0084	0.0154	0.0101	0.0101	0.0105	0.0108	0.0070	0.0084	0.0072
1976	0.0119	0.0207	0.0165	0.0081	0.0156	0.0092	0.0093	0.0092	0.0095	0.0066	0.0081	0.0066
1977	0.0120	0.0230	0.0156	0.0080	0.0167	0.0095	0.0093	0.0098	0.0099	0.0067	0.0086	0.0071
1978	0.0118	0.0206	0.0156	0.0080	0.0158	0.0097	0.0093	0.0096	0.0097	0.0069	0.0087	0.0072
1979	0.0109	0.0210	0.0159	0.0080	0.0153	0.0095	0.0082	0.0085	0.0085	0.0063	0.0085	0.0070
1980	0.0099	0.0201	0.0138	0.0075	0.0146	0.0093	0.0081	0.0084	0.0088	0.0064	0.0080	0.0072
1981	0.0103	0.0184	0.0141	0.0078	0.0143	0.0095	0.0087	0.0094	0.0100	0.0070	0.0089	0.0078
1982	0.0102	0.0178	0.0145	0.0081	0.0146	0.0103	0.0089	0.0097	0.0104	0.0074	0.0095	0.0084
1983	0.0105	0.0175	0.0147	0.0086	0.0167	0.0102	0.0086	0.0096	0.0101	0.0075	0.0098	0.0088
1984	0.0106	0.0157	0.0142	0.0087	0.0159	0.0109	0.0089	0.0099	0.0097	0.0074	0.0096	0.0086
1985	0.0111	0.0160	0.0159	0.0090	0.0171	0.0111	0.0084	0.0097	0.0100	0.0077	0.0095	0.0089
1986	0.0098	0.0163	0.0134	0.0086	0.0144	0.0110	0.0085	0.0099	0.0100	0.0076	0.0098	0.0092
1987	0.0096	0.0150	0.0136	0.0084	0.0153	0.0107	0.0083	0.0099	0.0100	0.0074	0.0097	0.0091
1988	0.0104	0.0155	0.0144	0.0085	0.0165	0.0112	0.0088	0.0103	0.0105	0.0078	0.0103	0.0095
1989	0.0096	0.0154	0.0130	0.0084	0.0144	0.0101	0.0081	0.0096	0.0096	0.0077	0.0097	0.0091
1990	0.0090	0.0146	0.0127	0.0084	0.0136	0.0109	0.0082	0.0095	0.0097	0.0076	0.0092	0.0090
1991	0.0089	0.0145	0.0120	0.0088	0.0152	0.0110	0.0080	0.0096	0.0095	0.0080	0.0098	0.0095
1992	0.0088	0.0142	0.0121	0.0088	0.0160	0.0114	0.0081	0.0093	0.0095	0.0082	0.0100	0.0098
1993	0.0090	0.0144	0.0128	0.0096	0.0175	0.0125	0.0084	0.0098	0.0097	0.0087	0.0109	0.0102
1994	0.0088	0.0144	0.0123	0.0096	0.0164	0.0119	0.0080	0.0097	0.0092	0.0087	0.0105	0.0103
1995	0.0101	0.0171	0.0135	0.0111	0.0173	0.0141	0.0093	0.0113	0.0115	0.0097	0.0120	0.0110
1996	0.0088	0.0153	0.0123	0.0097	0.0161	0.0119	0.0091	0.0120	0.0108	0.0098	0.0115	0.0114
1997	0.0087	0.0141	0.0126	0.0092	0.0159	0.0121	0.0094	0.0113	0.0111	0.0092	0.0119	0.0107
1998	0.0087	0.0150	0.0121	0.0093	0.0158	0.0122	0.0090	0.0118	0.0110	0.0095	0.0119	0.0106
1999	0.0087	0.0148	0.0123	0.0095	0.0164	0.0121	0.0087	0.0115	0.0110	0.0093	0.0115	0.0108
2000	0.0071	0.0107	0.0082	0.0083	0.0129	0.0093	0.0076	0.0083	0.0079	0.0080	0.0093	0.0082
2001	0.0071	0.0104	0.0082	0.0083	0.0133	0.0094	0.0074	0.0084	0.0079	0.0081	0.0094	0.0081
2002	0.0070	0.0103	0.0082	0.0081	0.0137	0.0093	0.0072	0.0084	0.0079	0.0081	0.0094	0.0083
2003	0.0072	0.0111	0.0087	0.0082	0.0149	0.0102	0.0073	0.0084	0.0078	0.0079	0.0093	0.0084
2004	0.0072	0.0103	0.0086	0.0084	0.0142	0.0101	0.0072	0.0086	0.0081	0.0081	0.0095	0.0084
2005	0.0070	0.0102	0.0086	0.0083	0.0150	0.0104	0.0072	0.0088	0.0085	0.0082	0.0093	0.0085
2006	0.0071	0.0101	0.0089	0.0083	0.0143	0.0104	0.0072	0.0087	0.0083	0.0080	0.0094	0.0089
2007	0.0067	0.0104	0.0085	0.0084	0.0147	0.0110	0.0071	0.0086	0.0078	0.0078	0.0097	0.0090
2008	0.0066	0.0098	0.0084	0.0088	0.0152	0.0108	0.0075	0.0088	0.0088	0.0083	0.0101	0.0090
2009	0.0067	0.0100	0.0088	0.0088	0.0143	0.0110	0.0075	0.0088	0.0086	0.0081	0.0102	0.0091
2010	0.0070	0.0100	0.0089	0.0085	0.0145	0.0116	0.0074	0.0087	0.0084	0.0083	0.0101	0.0094
2011	0.0071	0.0103	0.0090	0.0090	0.0150	0.0120	0.0074	0.0089	0.0086	0.0086	0.0104	0.0100
2012	0.0071	0.0100	0.0092	0.0093	0.0158	0.0124	0.0074	0.0088	0.0084	0.0087	0.0109	0.0100
2013	0.0071	0.0101	0.0090	0.0090	0.0163	0.0122	0.0073	0.0091	0.0086	0.0085	0.0113	0.0098
2014	0.0073	0.0109	0.0091	0.0096	0.0181	0.0128	0.0077	0.0095	0.0091	0.0085	0.0112	0.0100
2015	0.0074	0.0110	0.0094	0.0100	0.0181	0.0136	0.0077	0.0096	0.0090	0.0089	0.0121	0.0107
2016	0.0075	0.0110	0.0091	0.0097	0.0178	0.0137	0.0077	0.0096	0.0090	0.0088	0.0119	0.0104
2017	0.0075	0.0116	0.0097	0.0099	0.0187	0.0140	0.0078	0.0096	0.0091	0.0091	0.0122	0.0113
2018	0.0072	0.0108	0.0094	0.0100	0.0177	0.0138	0.0077	0.0092	0.0091	0.0086	0.0117	0.0106
2019	0.0077	0.0116	0.0104	0.0116	0.0210	0.0166	0.0081	0.0102	0.0098	0.0095	0.0130	0.0125

Source: U.S. Bureau of Labor Statistics.

Table A-10. Standard errors for chart 10

Period	Women				Men			
	College, young children	College, older children	High school, young children	High school, older children	College, young children	College, older children	High school, young children	High school, older children
2004	3.8441	2.1969	3.7436	1.9031	2.9133	1.9645	3.0361	1.9031
2005	3.9840	2.2617	4.0066	2.0143	3.0476	2.1285	3.0133	2.0143
2006	3.8010	2.3627	4.0537	1.9873	3.0452	2.1939	3.0044	1.9873
2007	3.6169	2.3827	4.1420	2.1056	2.9789	2.4175	2.9679	2.1056
2008	3.7414	2.4091	4.0478	2.3682	3.4803	2.4525	3.2516	2.3682
2009	3.5971	2.3223	3.9186	2.4409	3.4810	2.4788	3.3489	2.4409
2010	3.8732	2.4774	3.9767	2.5904	3.6682	2.2277	3.4410	2.5904
2011	3.8965	2.5124	4.2458	2.5684	3.3334	2.1567	3.8610	2.5684
2012	4.1604	2.5340	4.6405	2.8914	3.5112	2.2037	4.1208	2.8914
2013	4.1474	2.4205	4.9169	3.0361	3.2977	2.1721	4.3461	3.0361
2014	4.1809	2.4927	5.3477	3.0879	3.1552	2.4188	4.0408	3.0879
2015	4.1568	2.5487	5.8034	3.1587	2.9976	2.4089	4.0502	3.1587
2016	4.1283	2.5961	6.4515	3.1665	3.2125	2.4432	4.2336	3.1665
2017	4.2898	2.5367	7.0775	3.9102	3.3305	2.2663	4.2639	3.9102
2018	4.4763	2.4604	7.4385	4.0760	3.3814	2.2097	4.3561	4.0760

Source: U.S. Bureau of Labor Statistics.

Table A-11. Standard errors for chart 11

Period	Women				Men			
	College, young children	College, older children	High school, young children	High school, older children	College, young children	College, older children	High school, young children	High school, older children
2004	3.5490	4.0800	4.2961	3.6401	3.8075	3.4712	3.5121	3.6401
2005	3.7860	4.2353	4.4594	3.9223	3.8316	3.7249	3.6975	3.9223
2006	3.6657	4.2833	4.3904	4.0749	3.5209	3.8630	3.7169	4.0749
2007	3.5521	4.2119	4.5700	4.1001	3.5545	3.9052	3.7375	4.1001
2008	3.4101	4.0561	4.6424	4.5382	3.5700	3.9247	3.7819	4.5382
2009	3.4525	3.9086	4.7731	4.5181	3.5019	3.7432	3.8885	4.5181
2010	3.7780	3.7972	4.7244	4.6650	3.5698	3.8621	3.9595	4.6650
2011	3.8955	3.8322	5.2091	4.5779	3.4061	3.8025	4.1558	4.5779
2012	4.0640	3.7419	5.4855	5.0069	3.6198	3.8724	4.1870	5.0069
2013	3.8207	3.7714	6.0052	5.2167	3.6549	3.6994	4.6655	5.2167
2014	3.7601	3.9278	6.0142	5.4467	3.9927	3.8023	4.8864	5.4467
2015	3.8334	4.1302	6.3875	5.6468	3.7784	3.7850	5.4328	5.6468
2016	4.0067	4.2775	6.4441	5.9304	3.6833	3.9559	5.7644	5.9304
2017	4.1356	4.3103	7.1385	6.5409	3.4950	3.9945	5.9117	6.5409
2018	4.2103	4.2891	7.2946	6.7388	3.5567	4.0435	6.2643	6.7388

Source: U.S. Bureau of Labor Statistics.

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**Notes**

<sup>1</sup> See Katharine G. Abraham and Melissa S. Kearney, "Explaining the decline in the U.S. employment-to-population ratio: a review of the evidence," *Journal of Economic Literature* 58, no. 3, September 2020, pp. 585–643, <https://doi.org/10.1257/jel.20191480>.

<sup>2</sup> Our work builds on the work of Diane Macunovich and Saul Hoffman, who studied female labor force participation using CPS data. See Diane J. Macunovich, "Reversals in the patterns of women's labor supply in the United States, 1977–2009," *Monthly Labor Review*, November 2010, pp. 16–36, <https://www.bls.gov/opub/mlr/2010/11/art2full.pdf>; and Saul D. Hoffman, "The changing impact of marriage and children on women's labor force participation," *Monthly Labor Review*, February 2009, pp. 3–14, <https://www.bls.gov/opub/mlr/2009/02/art1full.pdf>.

<sup>3</sup> We use employment–population ratios as the appropriate measure of labor supply at the extensive margin, and hours worked as the measure at the intensive margin. See Seonyoung Park, "A structural explanation of recent changes in life-cycle labor supply and fertility behavior of married women in the United States," *European Economic Review* 102, February 2018, pp. 129–68, <https://doi.org/10.1016/j.eurocorev.2017.11.006>; and Abraham and Kearney, "Explaining the decline in the U.S. employment-to-population ratio."

<sup>4</sup> The labor market data for 2020 and 2021 are noisy because of the pandemic, which had unusual impacts on labor supply decisions within households and across demographic groups. As discussed in the text, real hourly earnings increased during the pandemic whereas in all previous recessions, real earnings declined. The focus of this article is to document recent overall trends so most of our analysis ends in 2019.

<sup>5</sup> Abraham and Kearney (in 2020) and Albanesi and Prado (in 2022) report some of these findings but do not consider ages of children (though the first decomposes effects by ages of workers and the latter focuses on married women). See Stefania Albanesi and María José Prados, "Slowing women's labor force participation: the role of income inequality" (Cambridge, MA: National Bureau of Economic Research, January 2022), <https://doi.org/10.3386/w29675>. For example, Albanesi and Prado document that the labor force participation of married female college graduates stalled between the 1990s and 2008, but slightly increased from 2008 to 2017.

<sup>6</sup> For a discussion of trends in the labor supply of married women from 1980 to 2010 using Panel Study of Income Dynamics (PSID) data, see Francine D. Blau and Lawrence M. Kahn, "Changes in the labor supply behavior of married women: 1980–2000," *Journal of Labor Economics* 25, no. 3, July 2007, pp. 393–438, <https://doi.org/10.1086/513416>; and Francine D. Blau and Lawrence M. Kahn, "The gender wage gap: extent, trends, and explanations," *Journal of Economic Literature* 55, no. 3, September 2017, pp. 789–865, <https://doi.org/10.1257/jel.20160995>.

<sup>7</sup> We compare growth rates for various subgroups by calculating the percentage change in real hourly earnings between the first year in our sample (2000) and the last year (2019).

<sup>8</sup> More precisely, because every March Current Population Survey (CPS) asks individual respondents about their annual hours and earnings for the preceding calendar year, we use March CPS surveys from 1976 to 2020 to generate employment and hourly earnings series for the 1975–2019 period. All the sample periods cited in this article are calendar years instead of survey years.

<sup>9</sup> Nonmarried includes those who are widowed, divorced, separated, etc.

<sup>10</sup> This category also includes mothers and fathers who have older children in the household and adult children outside of the household.

<sup>11</sup> These restrictions are a convention often used in the literature. See Marco Francesconi, "A joint dynamic model of fertility and work of married women," *Journal of Labor Economics* 20, no. 2, April 2002, pp. 336–80, <https://doi.org/10.1086/338220>; and Park, "A structural explanation of recent changes in life-cycle labor supply and fertility behavior of married women in the United States."

<sup>12</sup> For earnings, we include the sum of wages and salaries, nonfarm business income, and farm income.

<sup>13</sup> For more information on the American Heritage Time Use Survey and all it includes in unpaid domestic work, see Kimberly Fisher, Jonathan Gershuny, Sarah M. Flood, Joan Garcia Roman, Sandra L. Hofferth, U.S. Bureau of Labor Statistics, and U.S. Census Bureau, "American Heritage Time Use Study extract builder: version 1.2" (Minneapolis, MN: IPUMS, 2018), <https://doi.org/10.18128/D061.V1.2>.

<sup>14</sup> We do not display these regression lines in chart 1, for brevity.

<sup>15</sup> This change is statistically significant at the 1-percent level.

<sup>16</sup> These changes are statistically significant at the 5-percent level with respective standard errors of 0.0069 and 0.0044.

<sup>17</sup> This measurement has an associated standard error of 0.0055, which is statistically significant at the 1-percent level.

<sup>18</sup> This measurement has an associated standard error of 0.0094.

<sup>19</sup> Results for men are available from the authors upon request.

<sup>20</sup> We focus our analysis on married women. Trends in hours for other subgroups are available from the authors upon request.

<sup>21</sup> These changes are statistically significant at the 1-percent level.

<sup>22</sup> The COVID-19 pandemic-induced recession of 2020 is an exception. Average real earnings rose markedly because workers who had below average earnings were more likely to be laid off.

<sup>23</sup> Real hourly earnings growth appears to have stalled out for most subgroups of workers during this period.

<sup>24</sup> These changes are statistically different at the 1-percent level.

<sup>25</sup> We also analyze the trends in time use for weekdays and among the employed. Overall, the trends are similar to those reported in chart 9. Additional results are available from the authors upon request.

<sup>26</sup> These changes are statistically significant at the 5-percent level with respective standard errors of 5.9 and 3.3. Because the time use data are fairly noisy, we compute 3-year moving averages for the 2003–2005 and 2017–2019 periods to arrive at estimates for the percentage changes in time use in 2004 and 2018. All of the differences are statistically significant at the 5-percent level or better.

<sup>27</sup> This change is statistically significant at the 1-percent level.

<sup>28</sup> This change is statistically significant at the 1-percent level.

<sup>29</sup> We also examined time spent on unpaid domestic work for nonmothers and nonfathers. The results (not reported in the text) show that nonmothers reduced their time spent on unpaid domestic work between 2004 and 2018. Little change was observed for nonfathers over the same period.



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