The Intersection of Workplace Flexibility and Exercise by Gender, Race, and Ethnicity

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ABOUT THIS REPORT

Exercise is good for mental and physical health, yet finding time can be challenging, particularly when workers have difficulty controlling their schedules on the job. This report is based on an analysis of data from the American Time Use Survey Leave Module 2017–2018 and assesses the relationship between workplace flexibility and workers' likelihood of exercising. It examines exercise rates of employees who have greater control over when and where they work and compares them to the rates of workers whose employers have greater control over schedules and explores differences in the likelihood of exercising and workers' access to remote working and schedule flexibility by workers' gender and race/ethnicity. The research provides a baseline for assessing changes in gender and racial/ethnic equity in access to flexible working practices since the COVID-19 pandemic.

ABOUT IWPR

The Institute for Women's Policy Research strives to win economic equity for all women and eliminate barriers to their full participation in society. As a leading national think tank, IWPR builds evidence to shape policies that grow women's power and influence, close inequality gaps, and improve the economic well-being of families.

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Contents

Figures and Tables

The Intersection of Workplace Flexibility and Exercise by Gender, Race, and Ethnicity

Executive Summary

Exercising is good for mental and physical health, yet finding time to exercise can be challenging, particularly when workers have difficulty controlling their schedules on the job. Prior research points to inequality in both access to workplace flexibility and workers' rates of exercise, as well as highlights the potential for more physically active lifestyles to lead to better health outcomes and counteract health inequities.

The Institute for Women's Policy Research (IWPR) analyzed the American Time Use Survey Leave Module 2017–2018 to assess the relationship between workplace flexibility and workers' likelihood of exercising. The analysis examines exercise rates when *employees* have greater control over when and where they work and compares those rates to workplaces where *employers* have greater control.

The study explores differences in the likelihood of exercising by workers' gender and race/ethnicity. Employee-centered flexibility, which gives workers greater control over their schedules, is measured in this report by workers' access to remote work and flextime, meaning their ability to change starting and finishing times. Employer-centered flexibility, which affords workers less ability to control their schedules, is gauged here by nonstandard hours (variable schedules or regularly working outside of the standard workday or workweek). The research provides a baseline for assessing changes in gender and racial/ethnic equity in access to flexible working practices since the COVID-19 pandemic.

Key Findings

Access to employee- and employer-centered flexibility is unequal.

- **The majority of women, regardless of race or ethnicity, had flextime**. While access varies by race/ethnicity, over half of women in each of the largest racial and ethnic groups—57.1 percent of White, 53.1 percent of Latina,[1] 52.2 percent of Asian, and 51.9 percent of Black women—reported being able to adjust their starting and finishing times.

- **Access to remote work was less equitable than flextime, and Black and Latina women were less likely to have access to remote work even when they worked in management and professional positions.** Before the COVID-19 pandemic, only a fifth of Black (18.8 percent) and Latina (18.1 percent) women could work from home, compared with almost a third of White (32.8 percent) and Asian (30.8 percent) women. Access to remote work is higher for professional and managerial workers, yet Black (33.3 percent) and Latina (35.3 percent) managerial and professional women workers were less likely to have access to remote work than Asian (42.7 percent) and White (43.7 percent) women, and even less likely than men in these jobs (57.7 percent).

- **Nonstandard schedules were particularly common for the lowest earners.** Women in the lowest third of full-time earners were twice as likely as women workers in the highest third to have nonstandard schedules (37.4 and 18.3 percent, respectively). Latina (41.4 percent) and Black (39.2 percent) women were significantly more likely than Asian (35.2 percent) and White (32.2 percent) women to work nonstandard schedules.

- **Men caregivers were more likely than women caregivers to have access to flextime and remote work.** Men who spent time caring for children or adults were more likely than women caregivers to have access to flextime (59.3 and 55.9 percent, respectively) and remote work (36.6 and 31.0 percent, respectively). Differences in access to employee-centered flexibility were particularly marked for remote work. Men caregivers were 1.8 times as likely as Latina, 1.6 times as likely as Black, and 1.4 times as likely as Asian women caregivers to be able to work remotely. White women caregivers' access to remote work was almost as high as men's, at 35.4 percent.

Workers with employee-centered flexibility were substantially more likely to exercise.

- **The likelihood of worker exercise varied by gender, race/ethnicity, and socioeconomic status.** On any given day, Latinas (19.0 percent) and White women (17.9 percent) were most likely to exercise, compared with 15.4 percent of Asian and just 12.4 percent of Black women. Women in the top third of all earners were 1.7 times more likely to exercise than women in the lowest third (22.8 and 13.5 percent, respectively).

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[1] In this report, we use the term Latina to refer to Hispanic or Latina women.

- **Women with access to remote work or flextime, particularly Asian and Black women, were significantly more likely to exercise**. Women with access to remote work were 41.4 percent more likely to exercise on any given day than women who lacked such access. Asian women with remote work access were 165.9 percent more likely to exercise than other Asian women, and Black women with remote work access were 91.7 percent more likely than their counterparts without such access. Access to flextime also increased rates of exercise, especially for Asian and Black women.

- **Those on nonstandard schedules, particularly Black women, were significantly less likely to exercise**. Women on nonstandard schedules were 11.2 percent less likely to exercise than others. This negative correlation is particularly strong for Black women with nonstandard schedules, who were 54.2 percent less likely to exercise than other Black women. Latinas on nonstandard schedules, however, were 14.4 percent more, not less, likely to exercise; this unexpected result requires further research.

Previous studies have shown that employee-centered flexibility allows for more healthy lifestyles. This pre-COVID-19 research highlights the clear positive association between exercise and access to employee-centered flexibility, particularly for Black women. At the same time, it points to high levels of inequality in access to control over work schedules. Given the crisis of health inequity in the United States and the greatly expanded potential for employee-centered flexibility demonstrated during and after the COVID-19 pandemic, the report concludes that providing enhanced access to employee-centered workplace flexibility and schedule control should be components of policies targeting greater health equity.

The Intersection of Workplace Flexibility and Exercise by Gender, Race, and Ethnicity

Introduction

Exercising improves individuals' mental and physical health. But making time to exercise can be difficult, particularly when schedules at work are hard to control. Workplace flexibility—variations in where, when, and how many hours employees work—is a crucial part of the employment relationship for employees and employers alike. For workers, access to greater choice and control over hours, location, and schedules can enable better management of work and nonwork responsibilities, providing them more autonomy over their personal, professional, and family lives. Such workplace flexibility has been shown to increase people's own sense of well-being and happiness (Okulicz-Kozaryn and Golden 2018), decrease work-family conflict (Shockley and Allen 2007), and encourage healthier lifestyles (Shifrin and Michel 2022). Employee-centered workplace flexibility can also improve individuals' health by providing more time to exercise, sleep, or prepare meals (Grzywacz, Casey, and Jones 2007; Moen, Fan, and Kelly 2013).

By contrast, employer-centered flexibility, including working outside the 'standard' working day or having schedules that change at short notice, is commonly associated with reduced well-being and poorer health. Such nonstandard schedules have become increasingly common with the growing dominance of the service sector and a shift to a 24/7 economy (Kalleberg 2011; Presser 2003). Negative impacts are particularly marked for workers who work evenings or nights and/or have frequently changing schedules. Workers on such nonstandard schedules have diminished sleep quality, poorer diets, lower levels of physical activity, and higher stress levels (Allen and Armstrong 2006; Bara and Arber 2009; Fenwick and Tausig 2001, 2004; Mailey et al. 2014; Schneider et al. 2019). Nonstandard schedules are also associated with worse subjective physical and mental well-being

(Cho 2017; Costa 2013; Knutsson 2003; Presser 2003; Rajaratnam and Arendt 2001). Women, particularly women of color, are especially likely to work in the service sector and, thus, are more likely to be affected by the negative consequences of nonstandard schedules (Presser 2003).

During the COVID-19 pandemic, opportunities for employee-centered flexibility, such as home-based work, expanded greatly for many women, including women with caregiving responsibilities. The explosion of home-based work during the pandemic arose out of necessity and—particularly for women with children—could result in substantial stress (see, for example, Graham et al. 2021), but it demonstrated that remote work was feasible in many more jobs than had previously not been considered for the practice. At the same time, the pandemic highlighted the concentration of Black and Latina women in 'essential' services jobs with very limited options for employee-centered flexibility, such as remote work or schedule control (Asfaw 2022).

This report examines the association between workers' access to workplace flexibility and their likelihood of exercising by race/ethnicity and social status. Much flexible work research is focused on caregivers and on the need for policies that reduce the potential conflict between the time demands of paid and family work (e.g., Moen and Kelly 2007). While in recent years, research into the negative consequences of lack of schedule control on women of color and their families has grown substantially (see, for example, Scheider and Harknett 2019), too often, research on employee-centered flexibility focuses primarily on White women in professional roles, omitting the experiences of women of color (Frevert, Culbertson, and Huffman 2015). IWPR's research seeks to help fill this gap by providing data by race and ethnicity on access to workplace flexibility and its association with exercise.

The research draws on the American Time Use Survey (ATUS) and the American Time Use Survey Leave and Job Flexibilities Module 2017–2018. The ATUS is an annual national survey based on detailed 24-hour diaries asking how much time respondents spent working, socializing, or caring for others or themselves on a reference day; the survey is provided to a sub-sample of respondents to the Current Population Survey. More specific topic modules are administered at less regular intervals. The 2017–2018 Leave and Job Flexibilities Module (ATUS Leave Module), which was sponsored by the US Department of Labor's Women's Bureau, included questions about workers' access to and use of paid and unpaid leave as well as questions about work schedules and access to workplace flexibility (US Bureau of Labor Statistics 2019). Using the ATUS Leave Module, we identified two indicators

of employee-centered workplace flexibility: flextime (the ability to change start and end times) and access to remote work (the ability to work from home as part of one's job). We also identified one indicator of employer-centered flexibility: nonstandard schedule (working evenings, nights, or weekends or having frequently changing schedules). Using the main ATUS, we examined whether a respondent spent any time engaging in specified physical activities on the reference day.[2]

The report begins with a brief review of prior research on associations between flexible working practices, health and well-being, and exercise. It then examines the data on employee- and employer-centered flexibility by gender, race/ethnicity, education, occupation, earnings, and caregiving status. Thereafter, we analyze differences in the likelihood of exercise by workers by gender, race/ethnicity, and the association between employee- and employer-centered flexibility and exercise. All analyses are descriptive; however, we conduct statistical significance tests whenever appropriate to enhance our findings and show direct comparisons by race/ethnicity, earnings, and occupation. The research provides a baseline for understanding pre-COVID-19 patterns.

The research finds that access to employee-centered flexibility is unequal across socioeconomic status and is lowest for Black women and Latinas. It finds that those who had access to flextime or remote work were more likely to exercise, while those on nonstandard schedules were less likely to do so. The positive association between flexible working options and exercise is particularly pronounced for Black and Asian women, regardless of occupation, income, and caregiving status. The report concludes with recommendations for future research and argues that given this positive association, providing enhanced access to flexible working and schedule control should be a component of policies targeting greater health equity.

[2] For a more detailed discussion of the ATUS and specific survey questions, see Appendix A: Methodology.

Workplace Flexibility and Health: Prior Researach

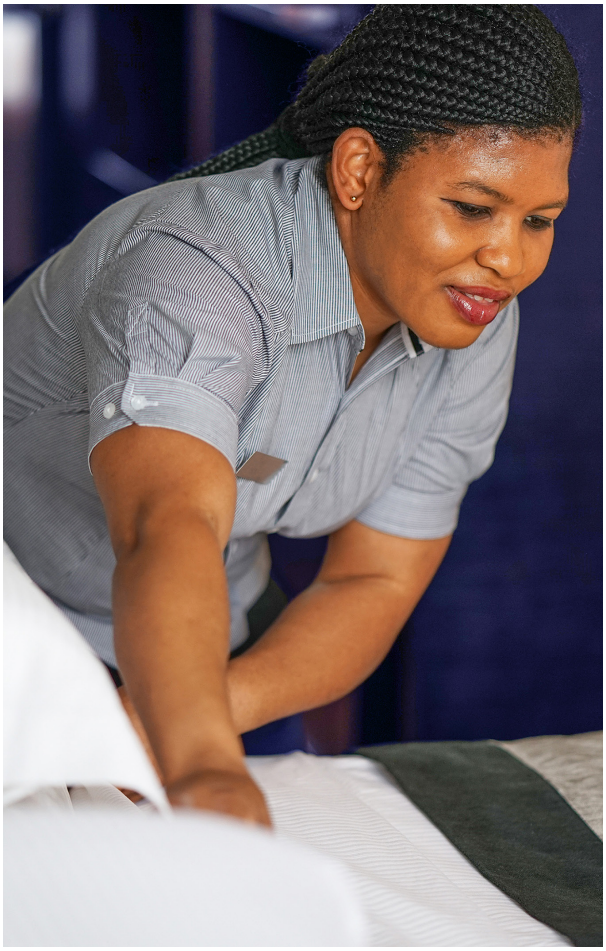
A substantial body of research points to the positive health effects of access to flexible work policies. Time is an important input to improving quality of life and self-reported well-being (Mogilner, Whillans, and Norton 2018; Golden and Kim 2017; Golden, Chung, and Sweet 2017; Ray and Pana-Cryan 2021). Greater control over working hours can provide more time for individuals to exercise, sleep, or prepare meals (Grzywacz, Casey, and Jones 2007; Moen, Fan, and Kelly 2013). Remote work has been linked to better subjective well-being and improved health behavior and outcomes (Shifrin and Michel 2022). Individuals who work remotely can use time otherwise spent commuting on healthy lifestyle activities (Barrero et al. 2021; Davis 2024). By contrast, commuting is associated with small yet significant reductions in exercise, food preparation, and sleep time (Christian 2009). Remote work often also entails greater flextime, with research finding a positive association between flextime and remote work and positive health outcomes (Moen et al. 2011; Moen, Fan, and Kelly 2013; Kelly et al. 2014).

That said, while working from home gives individuals more autonomy over their time, it can also lead to a blurring between work and nonwork domains and the creation of work-family conflicts (Lautsch, Kossek, and Eaton 2009; Shockley and Allen 2007). As Kim et al. (2020) have shown, whether home-based work is associated with an increase in worker well-being depends on the reasons for taking work home; when home-based work is a response to overwork, such effects are less likely. McKeever (2020) found that working from home during the COVID-19 pandemic led to longer hours of work and less time and energy for nonwork activities.

Research also reveals that individuals who lack employee-centered flexibility and/or schedule control report a number of adverse effects. These include poorer subjective physical and mental well-being (Cho 2017; Costa 2003; Knutsson 2003; Presser 2003; Rajaratnam and Arendt 2001); higher levels of stress (Bara and Arber 2009); and poor diet, lack of physical activity, and lower sleep quality (Allen and Armstrong 2006; Fenwick and Tausig 2001, 2004; Mailey et al. 2014). These negative results are particularly strong for workers with a schedule that falls outside of the 'standard' 9–5 workday. Working nights or long hours is associated with poorer mental health, especially for workers in retail, manufacturing, and service industries (Sato, Kuroda, and Owan 2020; Lambert, Fugiel, and Henly 2014). Negative health and well-being outcomes are also found for workers who are subject to frequent last-minute changes or cancelled shifts, fluctuating schedules, or little advance notice of their schedules (Schneider and Harknett 2019). When the number of hours worked varies from week to week, individuals experience stress from uncertainty and

the inability to plan (e.g., how to manage child care or attend college). Workers subject to variable work hours also report stress from the resulting income volatility and financial insecurity (Federal Reserve Survey 2014).

Access to employee-centered flexible work is unequal across gender, race, and ethnicity. Much of the research on workplace flexibility has focused on a particular subset of women: mothers. Facilitating workers' ability to manage family responsibilities is one of the principal areas of association between workplace flexibility and well-being (Kelly and Moen 2007). Flexible options that reduce work-family conflict are associated with better health and well-being (see, for example, Li et al. 2021). However, although women tend to be the primary caregivers, men are more likely to have access to flexible work (Golden 2001; US Bureau of Labor Statistics 2009) and are more likely to succeed when they approach their employer for schedule flexibility (Brescoll, Glass, and Sedlovskaya 2013).



Black women and Latinas are particularly likely to work in service occupations that often combine low earnings with low job quality and lack of schedule control (US Department of Labor 2022). In recent years, research has grown on the impacts of (lack of) control over work schedules, flexibility, and instability on families, including gender and racial differences in access to workplace accommodations (Gerstel and Clawson 2014; Kossek and Lautsch 2018; Lambert, Haley-Lock, and Henly 2012; Lyness, Gornick, Stone, and Grotto 2012; Sweet, Besen, Pitts-Catsouphes, and McNamara 2014). Such research points to the negative outcomes for health and well-being of a lack of control over working hours.

Research on the potential benefits to women of color of greater employee control over working hours, such as provided by flextime or remote work, is less developed. Typically, research on the benefits of workplace flexibility for mothers has focused on White women and women in professional jobs, failing to fully capture the experiences of women of color (Frevert, Culbertson, and Huffman 2015). Black and Latina women's odds of having access to telework during the COVID-19 pandemic were, respectively, 35 and 55 percent lower than White women's, confirming patterns found prior to the pandemic (Asfaw 2022). Asian women had equal, if not greater, access to workplace flexibility than White women (McMenamin 2007; Asfaw 2022). These racial and ethnic disparities are attributable, at least in part, to occupational differences: In occupations that involve high levels of computer use, workers have more access to remote work and flextime, and Black and Latina women are less likely than Asian and White women to work in those occupations (Paek 2023). However, as Gerstel and Clawson (2014) have shown, class and racial inequality influence access to workplace flexibility beyond the technical or structural potential for flexibility of different occupations.

Exercise, Health, and Workplace Flexibility

IWPR's research for this report focuses on exercise due to its strong links to health benefits. Engaging in physical activity helps reduce the risk of medical conditions such as coronary heart disease, stroke, high blood pressure, and type 2 diabetes and increases longevity more generally (Russell, Ibuka, and Abraham 2007; Powell, Paluch, and Blair 2011). Lack of physical activity and exercise, on the other hand, worsens a slew of medical conditions occurring throughout one's lifespan (Russell, Ibuka, and Abraham 2007). Additionally, parenthood is associated with declines in physical activity, and such effects are particularly pronounced for working mothers (Mailey et al. 2014; Pedersen 2014; Pereira et al. 2007).

Exercise also reduces depression (Kratz, Ehde, and Bombardier 2014), anxiety (Schoenfeld, Aragon, and Krieger 2013), and loss of cognitive functions (Powell, Paluch, and Blair 2011). Further, physical activity helps improve individuals' sleep quality (US Health and Human Services 2008). Exercise also has a positive effect on earnings, particularly for women relative to men (Kosteas 2012). As the frequency of exercise increases, women's earnings rise still further, perhaps because beauty and fitness play a bigger role for women in the labor market compared to men (Kosteas 2012).

In turn, those who have access to workplace flexibility policies are more likely to exercise than those who do not (Goguen 2017; Tabak et al. 2016; Grzywacz, Casey, and Jones 2007; Moen, Fan, and Kelly 2013; Moen et al. 2011). Employees reporting fewer working hours per week have higher rates of using exercise programs and facilities provided through the workplace (Tabak et al. 2015).

Multiple studies have used the ATUS to measure health and well-being by documenting how much time individuals spend on health care and health-related activities. Despite the physical and mental health benefits of exercise, most Americans have sedentary lifestyles and do not engage in frequent physical activity (Fried 2016). Only 11.3 percent of US adults in the 2003–2004 ATUS spent time on health-related activities (an average of 108 minutes on the reference day; Russell, Ibuka, and Abraham 2007). Mullahy and Robert (2008) found gender and race/ethnicity-based differences in time spent on exercise during weekend hours, with women reporting ten minutes less than men and non-Hispanic Black respondents reporting seven minutes less than non-Hispanic White respondents. In addition, educational attainment and high earnings are positively associated with exercise time.

In summary, prior research shows substantial positive associations between flextime and remote work and health-related behaviors and outcomes, including exercise and physical activity. By contrast, nonstandard schedules are negatively associated with health-related outcomes. While research on flexible work and health often includes gender analysis, particularly for women with caregiving responsibilities, fewer studies provide insights on access to employee-centered flexibility by race/ethnicity or its relationship to health and well-being or exercise by gender and race/ethnicity. Drawing on the 2017–2018 ATUS Leave Module, the next section examines variations in employee- and employer-centered flexibility by gender, race/ethnicity, earnings, education, occupation, and caregiving responsibilities.

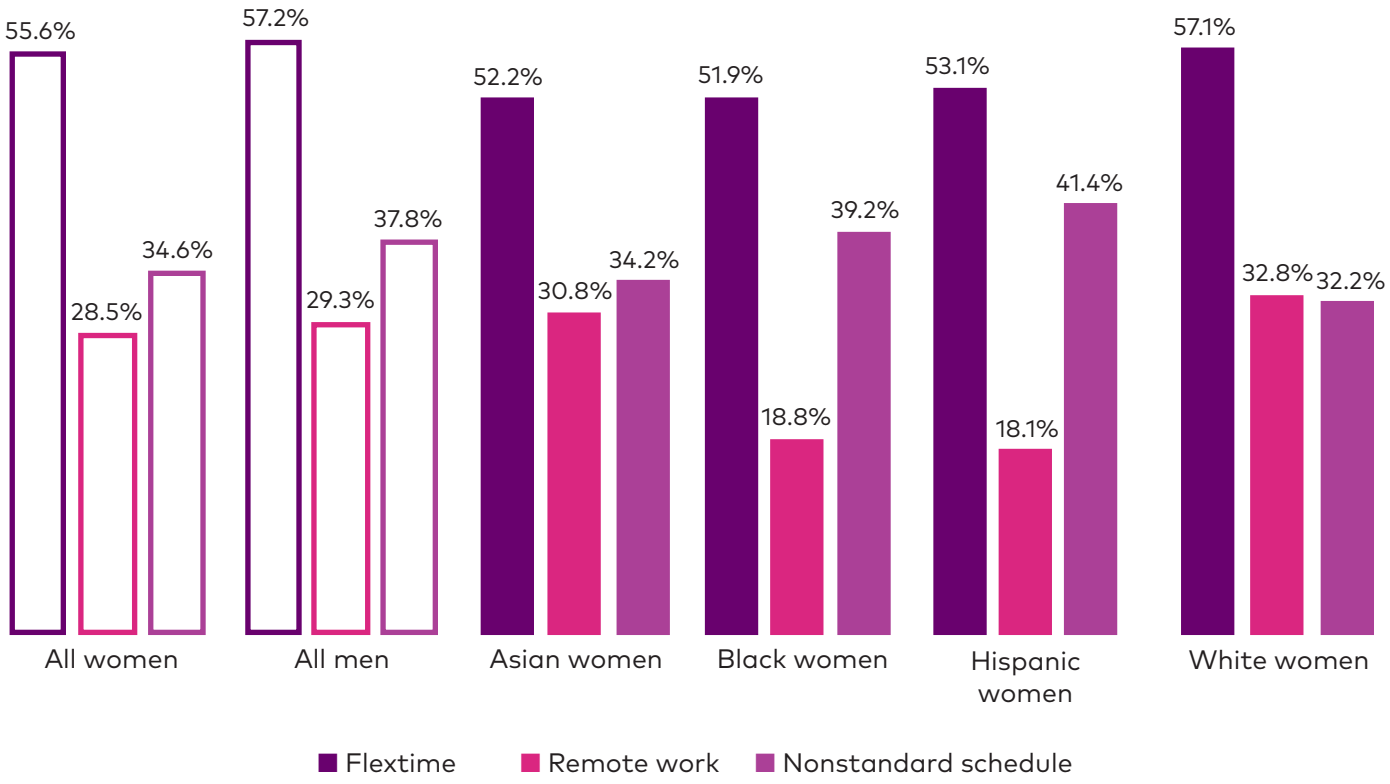
What the Data Show: Flexible Work by Gender, Race, and Ethnicity

In the 2017–2018 ATUS Leave Module, over half of all workers reported access to flextime, meaning they had the ability to change their starting or finishing times. While there are differences in access to flextime, these are not very substantial. Men were statistically significantly more likely to have flextime than women (57.2 percent and 55.6 percent, respectively). White women were more likely to have access to flextime (57.1 percent) than Asian (52.2 percent), Black (51.9 percent), and Latina women (53.1 percent; see Figure 1).[3]

The ability to work from home, however, was less common overall, and the magnitude of differences in access to remote work by race and ethnicity were more substantial. Slightly fewer than three in ten women (28.5 percent) and men (29.3 percent) reported that they were able to work from home prior to the COVID-19 pandemic. While a third (32.8 percent) of White women and more than three in ten (30.8 percent) Asian women had access to home-based work, such access was much lower among Black women (18.8 percent) or Latinas (18.1 percent). While Asian women do not significantly differ from White women (which can be due to the small sample size of Asian women) the differences between Black women and Latinas compared to White women were significant at less than one percent level (Appendix Tables C2–C4).

[3] Differences in access to flextime between White women and Black or Hispanic women are statistically significant, between White and Asian women are not; see Appendix Tables C2-C4.

Figure 1. Share of Workers with Flextime, Remote Work, and Nonstandard Schedules, by Gender and Race/Ethnicity



Source: IWPR analysis of the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definitions of flextime, remote work, and nonstandard schedule, see Appendix A: Methodology; for information on statistical significance, see Appendix Tables C1–C4.

Differences by race and ethnicity were also more marked for working nonstandard schedules. Nonstandard schedules include night work (from 6 p.m. to 6 a.m., Monday to Friday), weekends, or schedules that change. About a third (34.6 percent) of all women and a slightly higher share (37.8 percent) of men were on such schedules (Figure 1). Latina and Black women were significantly more likely to have nonstandard schedules (41.4 and 39.2 percent, respectively) compared with 32.2 percent of White women.[4] Asian women reported nonstandard work schedules at 34.2 percent, which did not differ significantly from White women.

Overall, Black and Latina women had the lowest access to remote work and were most likely to work nonstandard schedules. White women were 1.8 times as likely as Latinas and 1.7 times as likely as Black women to have remote work options. By contrast, Black women and Latinas were about 1.3 times as likely as White women to work nonstandard schedules.[5]

[4] The differences are statistically significant at less than one percent level (Appendix Tables C3 and C4).
[5] IWPR calculations based on data in Figure 1.

Flexible Work and Occupation, Educational Attainment, and Earnings

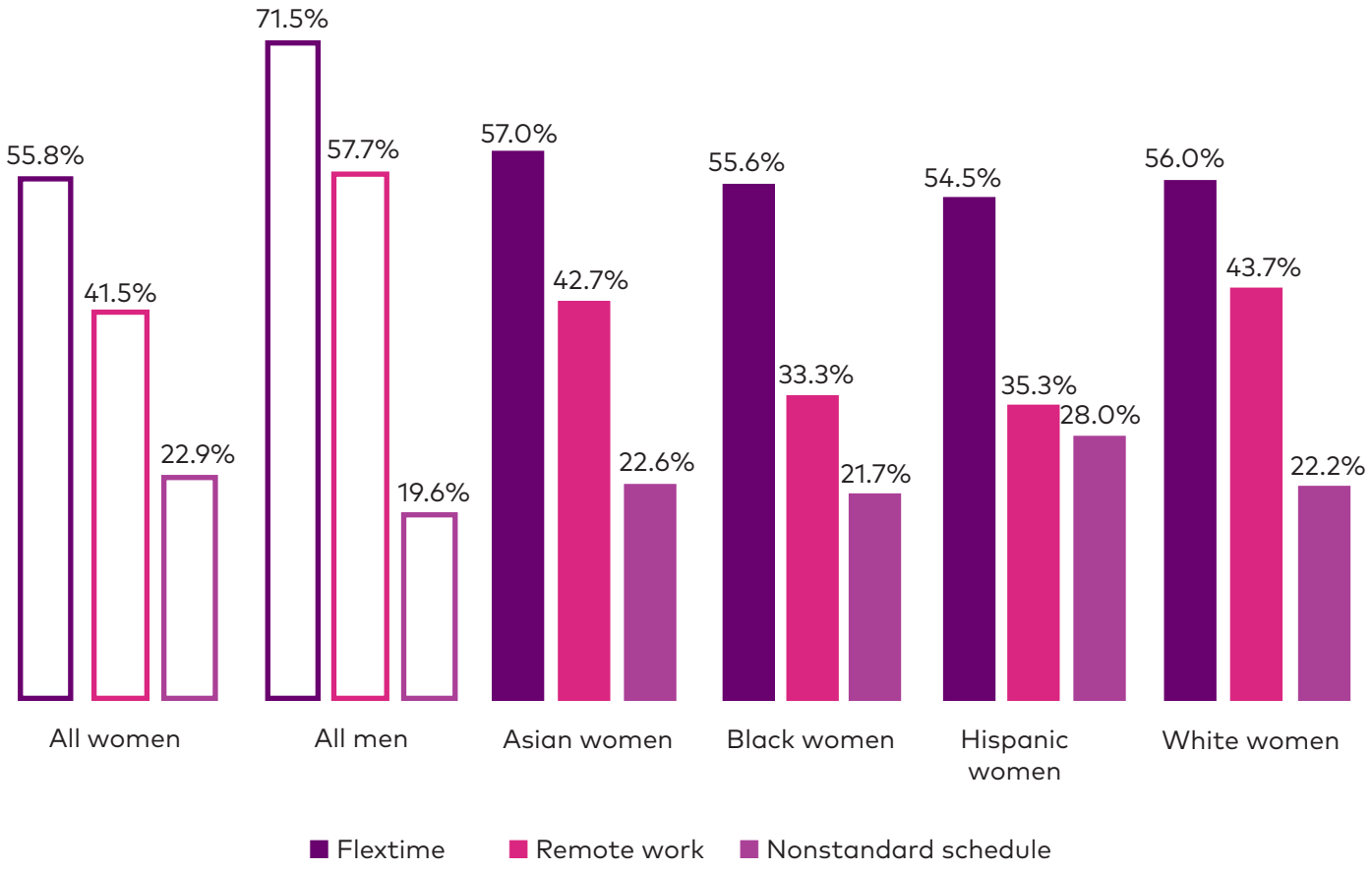
Gender and racial/ethnic differences in flexible work reflect differences in occupational status and educational attainment and, therefore, earnings. The likelihood of flexible work varied strongly by occupation. Women workers in management and professional occupations were most likely (41.5 percent), and workers in service and retail least likely (5.5 percent) to have the option to work from home. Conversely, fewer than one in four (22.9 percent) women in management and professional occupations worked nonstandard schedules, compared to nearly two-thirds (65.7 percent) of women in retail and service occupations (Figures 2 and 3; Appendix Table B1).

Latinas and Black women were less likely than Asian or White women to work in higher-paying occupations such as professional and managerial jobs or to hold a bachelor's degree or more, and they were more likely to work in lower-paying service and retail occupations (Appendix Tables B2 and B3). But these differences do not fully explain disparities in access to employee-centered flexible work options. Black and Latina women in managerial and professional occupations, for example, were significantly less likely to have access to remote work (33.3 and 35.3 percent, respectively) than Asian and White women (42.7 and 43.7 percent, respectively). Gender-based gaps were substantial, however: Roughly four in ten women (41.5 percent) could access remote work, compared to nearly six in ten men (57.7 percent; see Figure 2).

While variations in women's access to flextime did not vary substantially by race or ethnicity, women's access to flextime in professional and managerial jobs was significantly lower than men's (55.8 and 71.5 percent, respectively; see Figure 2).[6] Men were 1.3 times more likely to report being able to change starting and finishing times than women, and 1.4 times more likely to be able to work remotely than all women.[7]

[6] See Appendix Table C1 for statistical significance for gender differences and Tables C2–C4 for racial and ethnic differences among women.
[7] IWPR calculations based on data in Figure 2.

Figure 2. Workplace Flexibility in Managerial and Professional Occupations, by Gender and Race/Ethnicity



Source: IWPR analysis of the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older in managerial and professional occupations. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definitions of flextime, remote work, and nonstandard schedule, see Appendix A: Methodology; for information on statistical significance, see Appendix Tables C1–C4.

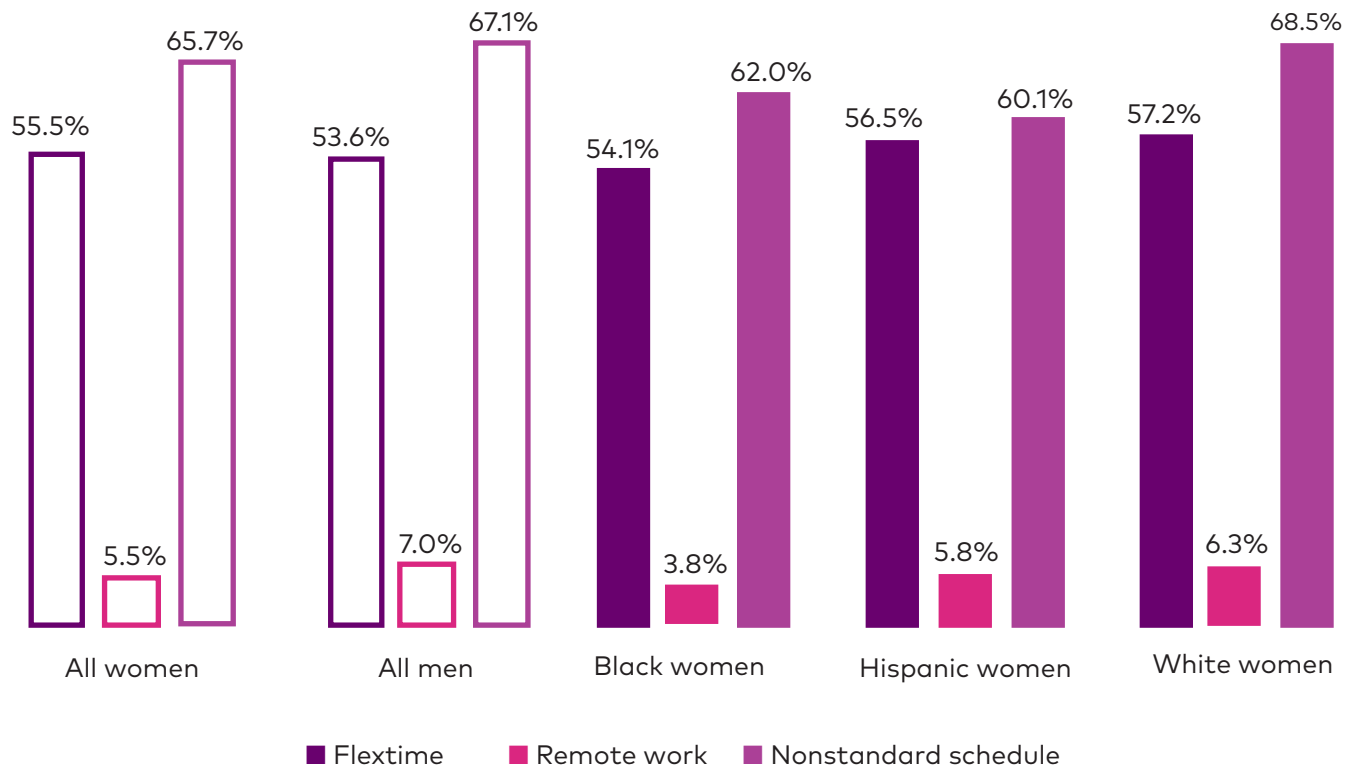
Gender and racial/ethnic variations among professional and managerial workers may reflect more detailed occupational differences. Women, for example, were more likely than men to work as teachers and nurses (Hegewisch, Childers, and Hartmann 2019), occupations with fewer opportunities for flextime or remote work. However, these variations may also reflect different levels of trust and control in the workplace that may make it harder for women of color to access such options.

While only slightly more than a fifth of professional and managerial workers were on nonstandard schedules, such work arrangements were reported by two-thirds of workers in service and retail occupations (65.7 percent of women and 67.1 percent of men; see Figure 3). The share of women workers on nonstandard schedules was highest for Asian (77.9 percent) and White women (68.5 percent) and slightly lower for Black (62.0 percent) and Latina women (60.1 percent); these differences may reflect small sample sizes and are not statistically significant.[8]

[8] The disproportionately high share of nonstandard schedules for Asian women compared to other women is not easily explained by workforce demographics and may reflect comparatively low sample sizes. See Appendix Tables C2–C4 for details on statistical significance.

Access to remote work, on the other hand, was very low for retail and service workers, with men at 7.0 percent and women at 5.5 percent. Black women have the least access to remote work at 3.8 percent, followed by Latina women (5.8 percent), both of which differ significantly from White women (6.3 percent).[9] Notably, however, flextime was accessible to at least half of all women in service and retail occupations at levels not much different from workers in professional and managerial occupations.

Figure 3. Workplace Flexibility Among Those in Service and Retail Occupations, by Gender and Race/Ethnicity



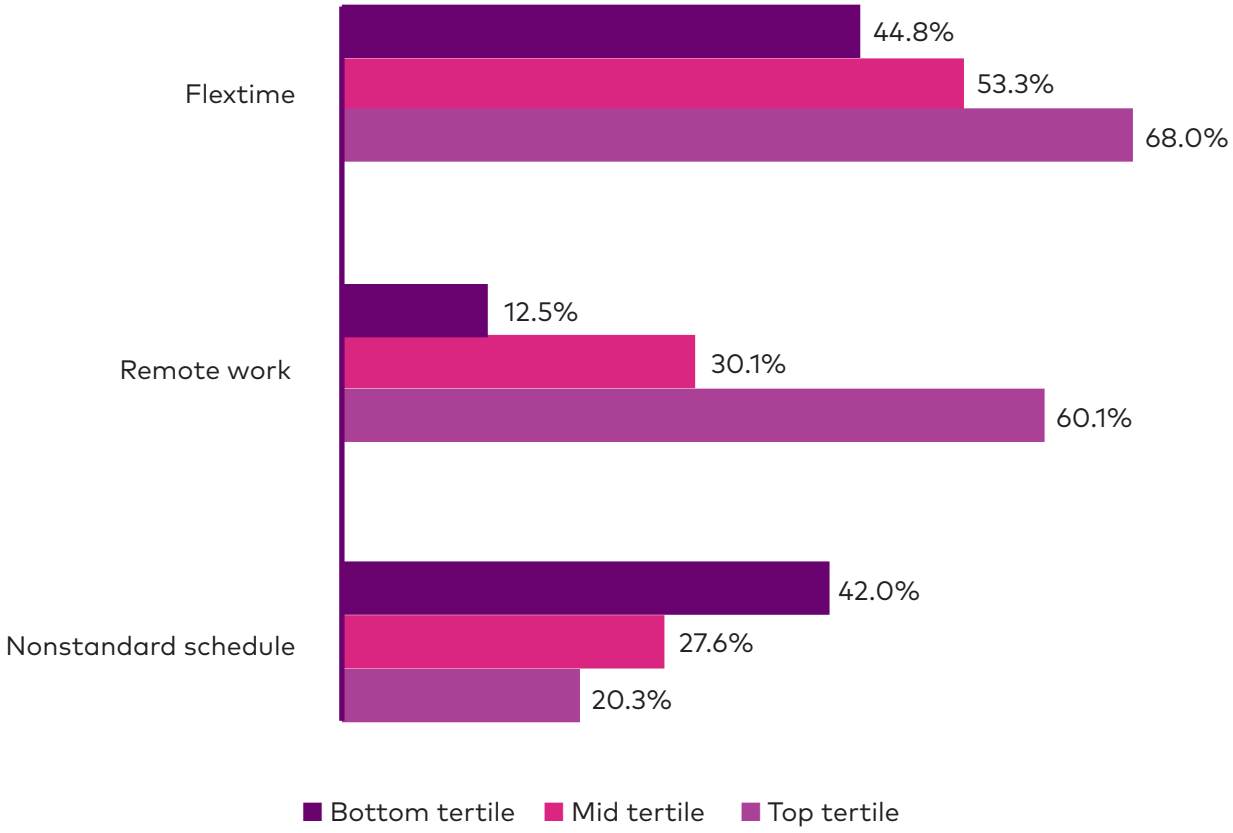
Source: IWPR analysis of the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older in services and retail occupations. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Asian or Native women. For definitions of flextime, remote work, and nonstandard schedule, see Appendix A: Methodology; for information on statistical significance, see Appendix Tables C1–C4.

Given the differences in flexible working patterns between higher-paying (managerial and professional) and lower-paying (service and retail) occupations, it is not surprising that earnings were positively associated with remote work access but negatively associated with nonstandard schedules. For example, 60.1 percent of those earning in the top third of the income distribution could work remotely, nearly twice as many as those in the middle third (30.1 percent) and almost five times

[9] Note that the sample for Asian women in service and retail occupations is too small and was dropped from Figure 3. See Appendix Tables C1–C4 for details on statistical significance.

as many as in the bottom third (12.5 percent). On the other hand, close to half (42.0 percent) of the bottom third of earners had nonstandard schedules compared with 27.6 percent in the middle third and 20.3 percent of those in the top third (Figure 4).[10]

Figure 4. Share of Workers with Access to Flexibility, by Earnings



Source: IWPR analysis of the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older, working full-time for at least 35 hours per week. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. Earning brackets were calculated based on the weekly earnings of all full-time workers. For definitions of flextime, remote work, and nonstandard schedule, see Appendix A: Methodology.

Similarly, those with a bachelor's degree or more are almost three times as likely as those with high school or lower levels of education to have home-based work options (45.1 and 12.6 percent, respectively), and they were less than half as likely to work nonstandard schedules (21.1 and 51.2 percent, respectively; see Table B1).

[10] Similar patterns are also observed for the sample of women only (Appendix Table B1).

Child Care, Adult Care, and Flexible Work

Research and policy development regarding flexible work reflects the fact that women are disproportionately more likely than men to have caregiving responsibilities for children, seniors, or family members with disabilities in need of care. Nearly four in ten women (39.2 percent) reported time spent caring for a child younger than 18 years of age and/or an adult in need of care compared to fewer than one in three men (29.5 percent; see Appendix Table B3). White women (39.3 percent) and Latinas (40.6 percent) were slightly more likely to report time spent on care than Asian (38.2 percent) or Black (37.8 percent) women.

Differences in access to flextime were small between those caring for children and those caring for adults, yet carers for children were substantially more likely to work remotely (32.2 and 27.1 percent, respectively). Similarly, those caring for children were less likely than those with adult care responsibilities to report working nonstandard schedules (31.5 compared to 36.8 percent; see Appendix Table B1).

Figure 5 breaks down flexibility rates among caregivers by race and ethnicity.[11] A majority of women caregivers reported flextime, and for caregivers—as for all workers—men were more likely to report flextime than women (59.3 and 55.9 percent, respectively). Black women caregivers were the only group with significantly less access to flextime than White women (49.3 and 56.6 percent, respectively; see Figure 5).[12]

Access to remote work was also higher for caregivers, especially men, than for all workers. Well over a third (36.6 percent) of men caregivers reported remote work options, a statistically significant 5.6 percentage points higher than women caregivers, at 31.0 percent. This difference is much larger than between all men (29.3 percent) and all women with access to remote work (28.5 percent). Men caregivers were 1.8 times more likely to be able to work remotely than Latina, 1.6 times more likely than Black, and 1.4 times more likely than Asian women caregivers.[13] White women caregivers had the highest likelihood of remote work (35.4 percent) and Latina women caregivers the lowest (20.6 percent; see Figure 5). Lower levels of access to remote work were statistically significant for women of color compared to White women.[14]

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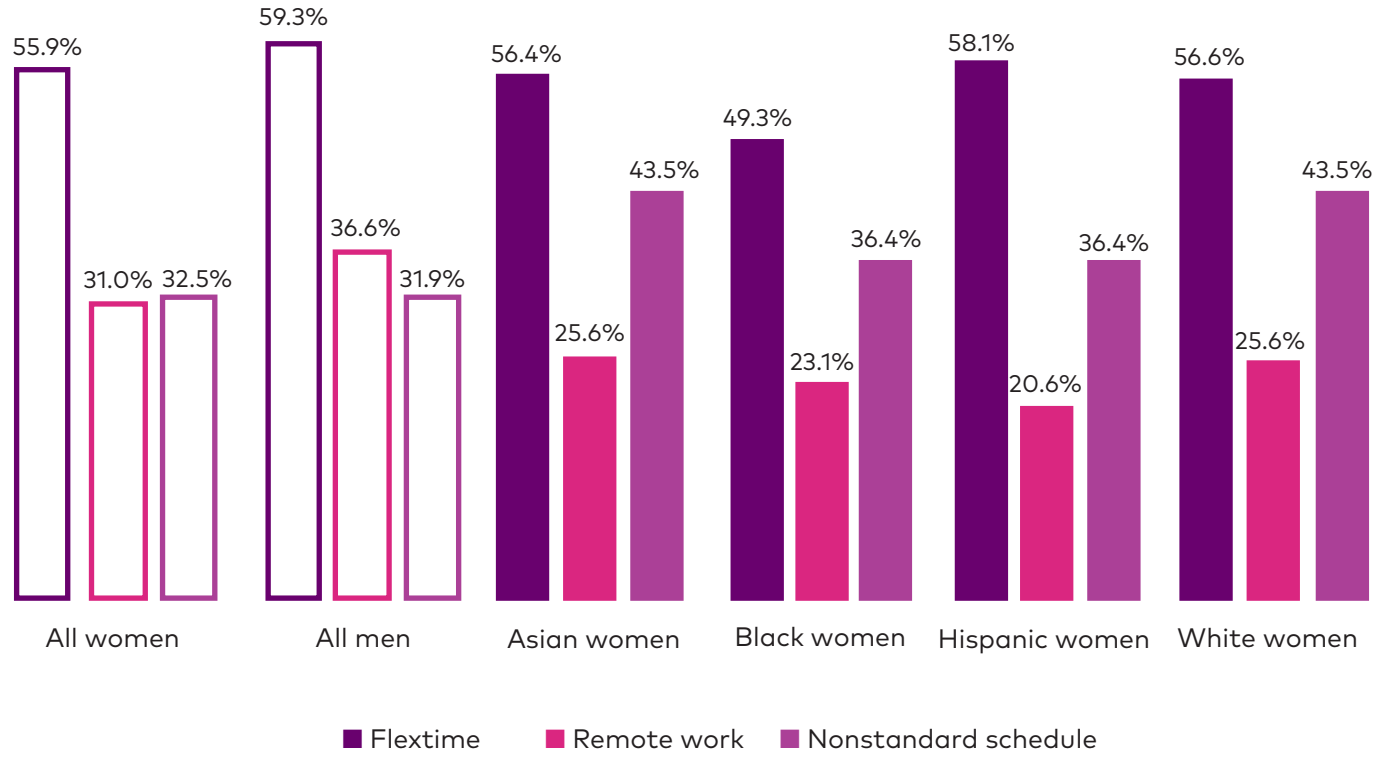
[11] Because of small sample sizes by gender, race, and ethnicity, carers for children and carers for adults are combined into one group of caregivers.
[12] The difference between Black and White women is statistically significant at the five percent level; differences between men and women caregivers and Asian and Hispanic women caregivers compared to White women caregivers were not significant (Appendix Tables C2–C4)
[13] IWPR calculation based on data in Figure 5.
[14] Statistically significant at one percent level for Black and Hispanic women compared to White women; the difference between Asian and White women is less significant, at 10 percent level; see Appendix Table C1 for significance levels for differences in women and men caregivers and Table C2–C4 for significance levels for racial/ethnic differences in remote work among caregivers.

Figure 5. Caregivers and Workplace Flexibility, by Gender and Race/Ethnicity



Source: IWPR analysis of the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older who spend any time caring for a child or an adult. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definitions of flextime, remote work, and nonstandard schedule, see Appendix A: Methodology; for information on statistical significance, see Appendix Tables C1–C4.

Lastly, the likelihood of a nonstandard schedule was marginally lower for women caregivers (32.5 percent) than all women workers (34.6 percent). A lower likelihood of nonstandard hours for caregivers compared to all women workers was found for Black, Latina, and White women but not for Asian women. The likelihood was 36.4 percent for Black women caregivers, compared to 39.2 percent for all Black women workers; 36.4 percent for Latina women caregivers, compared to 41.4 percent for all Latina women workers; and 29.9 percent for White women caregivers, compared to 32.2 percent for all White women workers (Figure 5 and Table B1). The likelihood of nonstandard schedules for Asian women caregivers, on the other hand, was higher than for all Asian women workers (43.5 compared to 34.2 percent; see Figure 5 and Table B1).[15]

[15] The differences in nonstandard schedules between Black and White women and Latina and White women caregivers were statistically significant; see Appendix Tables C3 and C4 for significance levels.

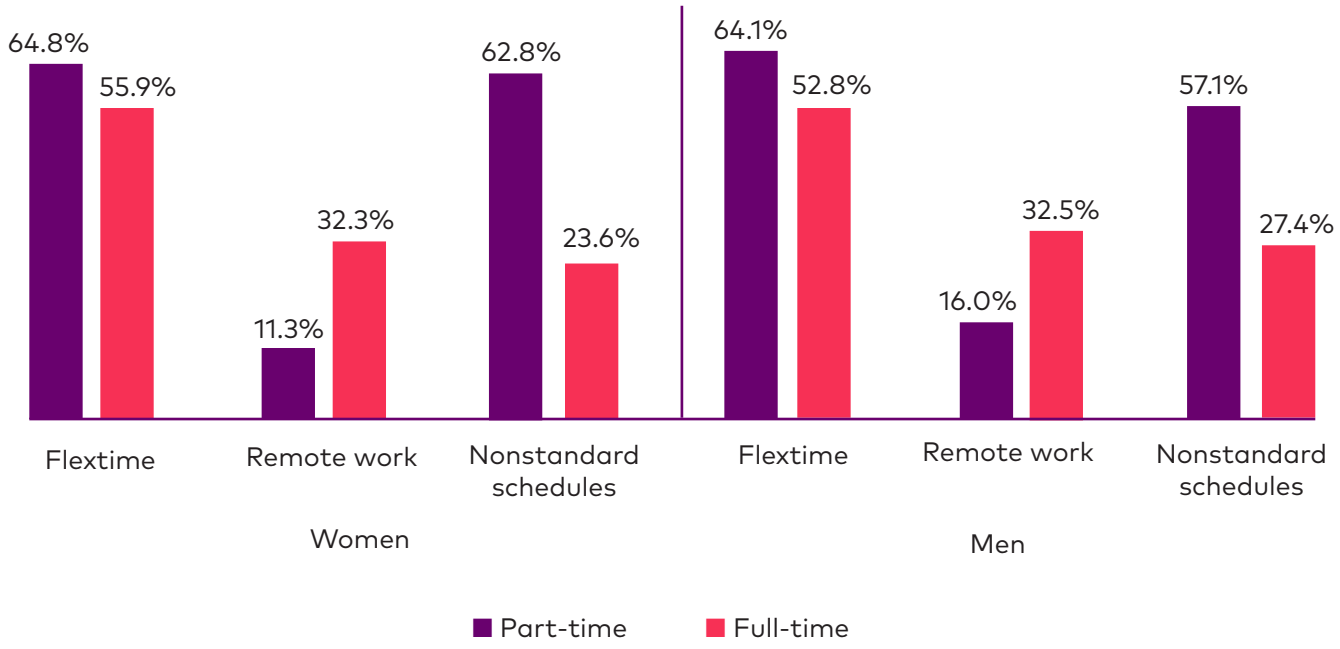
Part-Time Workers and Flexible Work

Part-time work is one of the most common ways for individuals to reconcile paid work and other responsibilities. Women are much more likely than men to work part-time for child care or other family reasons (Hegewisch and Lacarte 2020). But the cost of that flexibility can be steep in terms of control over schedules, hourly pay, and employee benefits (Landivar, Woods, and Livingston 2022). In sectors with high levels of part-time work, such as service and retail, frequent variations in scheduling and shift length have become increasingly common, resulting in unstable earnings as well as difficulties in meeting the non-work commitments—such as child care or college attendance—that may have motivated part-time work in the first place (Lambert, Fugiel, and Henly 2014).

Women were almost twice as likely as men to report working part-time (24.3 and 14.3 percent, respectively; see Appendix Table B3). Nearly three in ten Latina women (29.8 percent) worked part-time, substantially more than Asian (18.6 percent) or Black (20.8 percent) women (Appendix Table B3). While women part-time workers were more likely to report being able to change start and finishing times than women working full-time (64.1 and 52.8 percent, respectively; see Figure 6), they were also substantially less likely to report access to remote work (16.0 and 32.5 percent, respectively; see Figure 6). Women part-timers were also almost twice as likely to work nonstandard schedules as those working full-time (57.1 and 27.4 percent, respectively; see Figure 6).[16] Further research is needed to determine the degree to which nonstandard schedules for part-time workers primarily reflect choice (such as working weekends or evenings to fit in with college or partners' availability for caregiving) or are less voluntary.

[16] The ATUS sample sizes are insufficient for providing these data by gender, race, and ethnicity.

Figure 6. Part-Time and Full-Time Workers and Workplace Flexibility, by Gender



Source: IWPR analysis of the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older, working part-time for less than 35 hours per week. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definitions of flextime, remote work, and nonstandard schedule, see Appendix A: Methodology; for information on statistical significance, see Appendix Tables C1–C4.

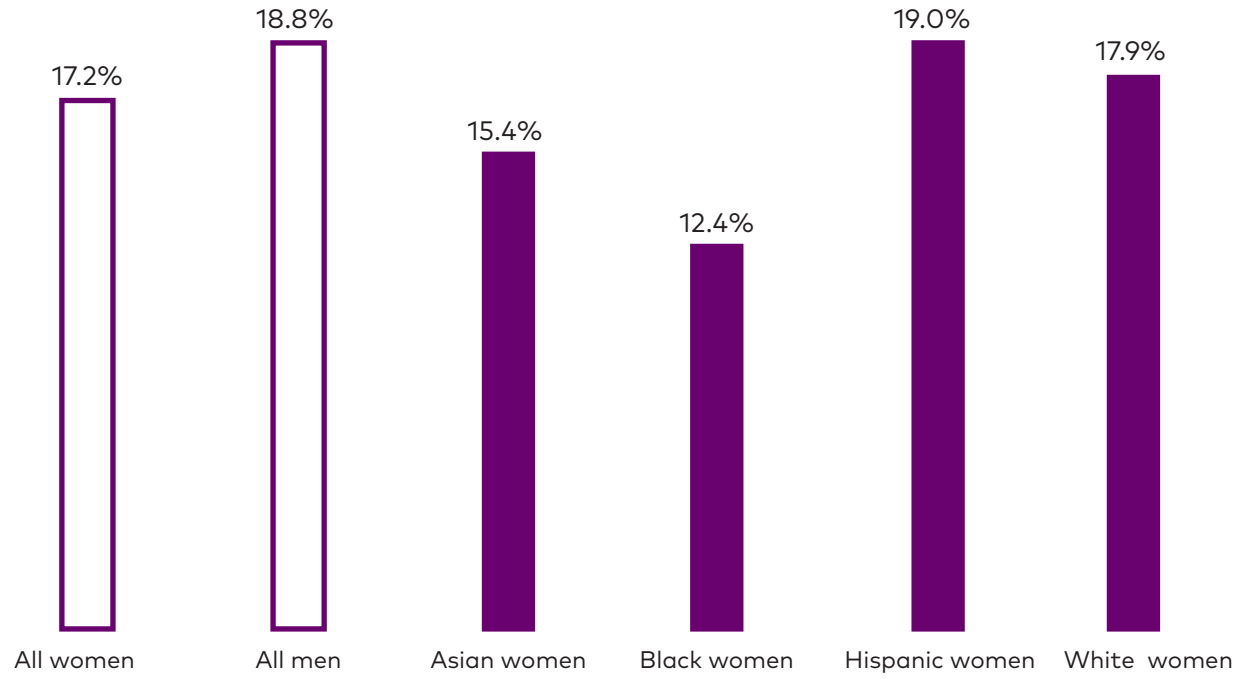
In summary, the data in this section show substantial differences by gender, race, and ethnicity in access to employee-centered flexibility, particularly regarding flextime and remote work. Workers in higher-status and higher-earning occupations are much more likely to have access to employee-centered flexibility, while workers in lower-paying jobs and occupations are much more likely to have less flexibility and schedule control. But while occupational segregation, educational attainment, and earnings explain some of the observed differences in flexibility, Black and Latina women also tended to have less access to employee-centered flexible work within occupational groups.

The next section turns to the analysis of gender and racial/ethnic differences in the likelihood of exercise and their association with flexible working practices.

Exercise, Gender, Race and Ethnicity, and Flexible Work

In 2017 and 2018, slightly under a fifth of all women workers (17.2 percent), as well as men workers (18.8 percent), spent time exercising on any given day (Figure 7).[17] The likelihood of exercise was highest for Latinas[18] (19.0 percent) and White women (17.9 percent), followed by Asian women (15.4 percent); Black women had the lowest rate[19] (12.4 percent;[20] see Figure 7). Having child or adult care responsibilities could also reduce time to exercise—the likelihood of physical exercise for women caregivers was 16.0 percent, slightly below the average for all women workers (although looking after children itself often entails physical activity; data not shown).[21]

Figure 7. The Likelihood of Exercising, by Gender and Race/Ethnicity



Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definition of exercise, see Appendix A: Methodology.

[17] The ATUS includes a choice of 40 different sport or exercise activities, ranging from aerobics and basketball to walking and yoga. For a full list of included activities, see ATUS Activity Lexicon 2003–2022, US Bureau of Labor Statistics, https://www.bls.gov/tus/lexicons/lexiconnoex0322.pdf.
[18] This may reflect the lower average age of the Hispanic population; see Peña, Álvarez Figueroa, Rios-Vargas, and Marks, 2023.
[19] See Joseph, Ainsworth, Keller, and Dodgson (2015) for a review of the literature on the barriers to physical activity for Black women.
[20] The difference between Black women and White women in exercise is statistically significant at one percent level. On the other hand, Asian women and Hispanic women did not have significantly different likelihood of exercise compared to White women. See Appendix Table C5 for details.
[21] For this reason, Hofferth, Flood, Carr, and Lee (2020) included time playing with children as a component of an active lifestyle in their ATUS-based analysis of perceived health and well-being and physical activity.

Just as men were more likely to exercise than women, they also typically spent more time doing so—109 minutes on average on the reference day compared to 83 minutes for women (Table 1). Differences in time spent exercising among women by race and ethnicity are much less marked than differences between women and men. While it's worth noting the gender gap in time spent exercising, this report focuses on whether people spend any time exercising. Substantial research suggests that individuals benefit from even moderate levels of exercise; what matters is whether people are physically active at all (see, for example, Powell, Paluch, and Blair 2011).

Table 1. Exercise in Minutes on Reference Day Among Those Who Exercise

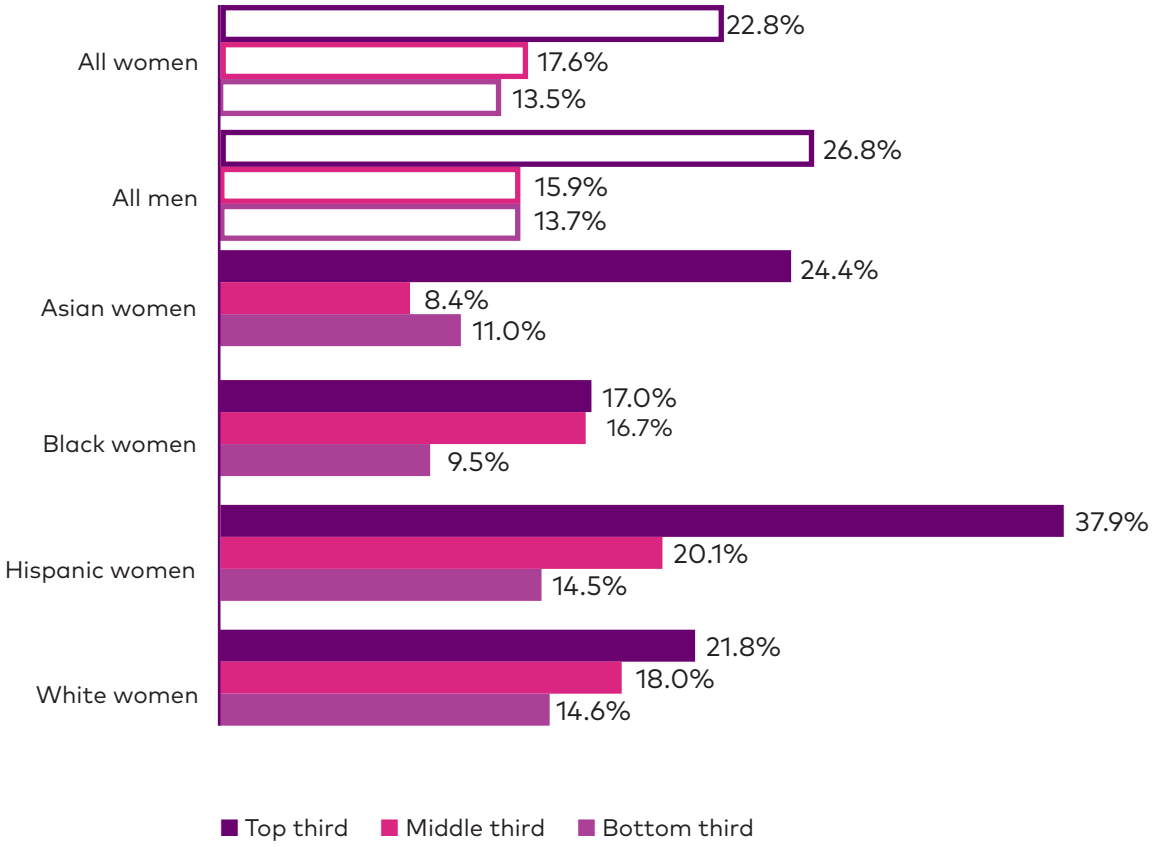
	Exercise (in minutes)
All	97.04
All men	108.65
All women	83.30
Asian women	76.75
Black women	86.58
Hispanic women	82.58
White women	83.47

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. Minutes are the average daily time spent on the reference day for those who exercise. For definition of exercise, see Appendix A: Methodology.

Time spent exercising varied by socioeconomic status and earnings. Women in the top third of earners (for those working full-time) were nearly twice as likely to exercise as women in the bottom third (22.8 and 13.5 percent, respectively; see Figure 8). Exercise rates were substantially lower for women in the bottom third regardless of race or ethnicity, ranging from 9.5 percent of Black women to 14.6 percent of White women (Figure 8). Women living in lower-income neighborhoods typically have fewer (and fewer safe) opportunities for physical exercise, which particularly affects Black and Latino communities (see, for example, Powell, Slater, Chaloupka, and Harper2006). Latina women in the highest income group were by far the most likely to spend time exercising (37.9 percent), 2.6 times more likely than Latinas with low incomes (14.5 percent, Figure 8).[22]

[22] Note that the sample size for Hispanic women in the top third of earners is 66 and for Asian women in the bottom and middle thirds are 55 and 63, respectively. All other categories have sufficient sample size.

Figure 8: The Likelihood of Exercising, by Earnings

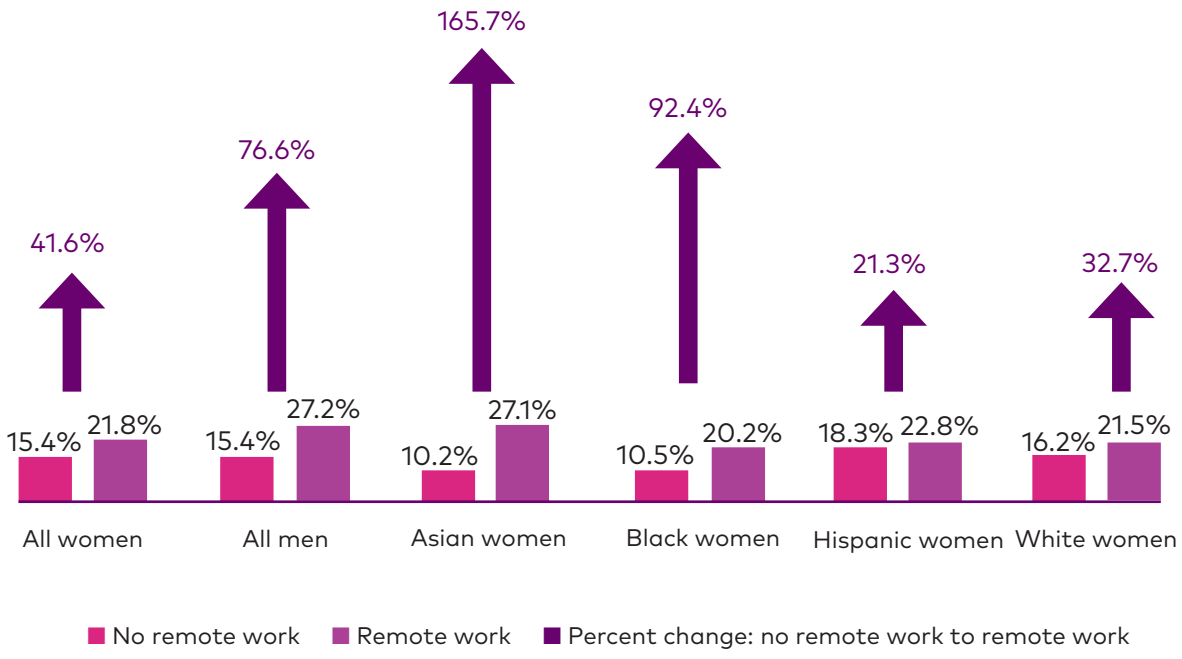


Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older, working full-time for at least 35 hours per week. Earning brackets were calculated based on the weekly earnings of all full-time workers. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definition of exercise, see Appendix A: Methodology.

Exercise and Workplace Flexibililty

Employee-centered flexibility helped workers exercise while employer-centered flexibility did not. Women (and men) workers who were able to change their starting and finishing times or work remotely were significantly more likely to exercise than workers without access to such flexibility, while workers on nonstandard schedules were significantly less likely to exercise than those working standard schedules. Access to remote work was associated with the most substantial increase in the likelihood of exercising. Women with access to remote work were 41.6 percent more likely to exercise on a given day than those who lacked such flexibility (Figure 9). Such a significant positive association was found for women of all the largest racial and ethnic groups, most strongly so for Asian women (165.7 percent higher) and Black women (92.4 percent higher; see Figure 9). White women with remote work options were 32.7 percent more likely to exercise than those without such options.[23] The difference in exercise rates for Latina women with and without remote work options was not statistically significant (Appendix Table C6).

Figure 9. The Change in the Likelihood of Exercising for Workers with Remote Work Options Compared to Other Workers, by Gender and Race/Ethnicity

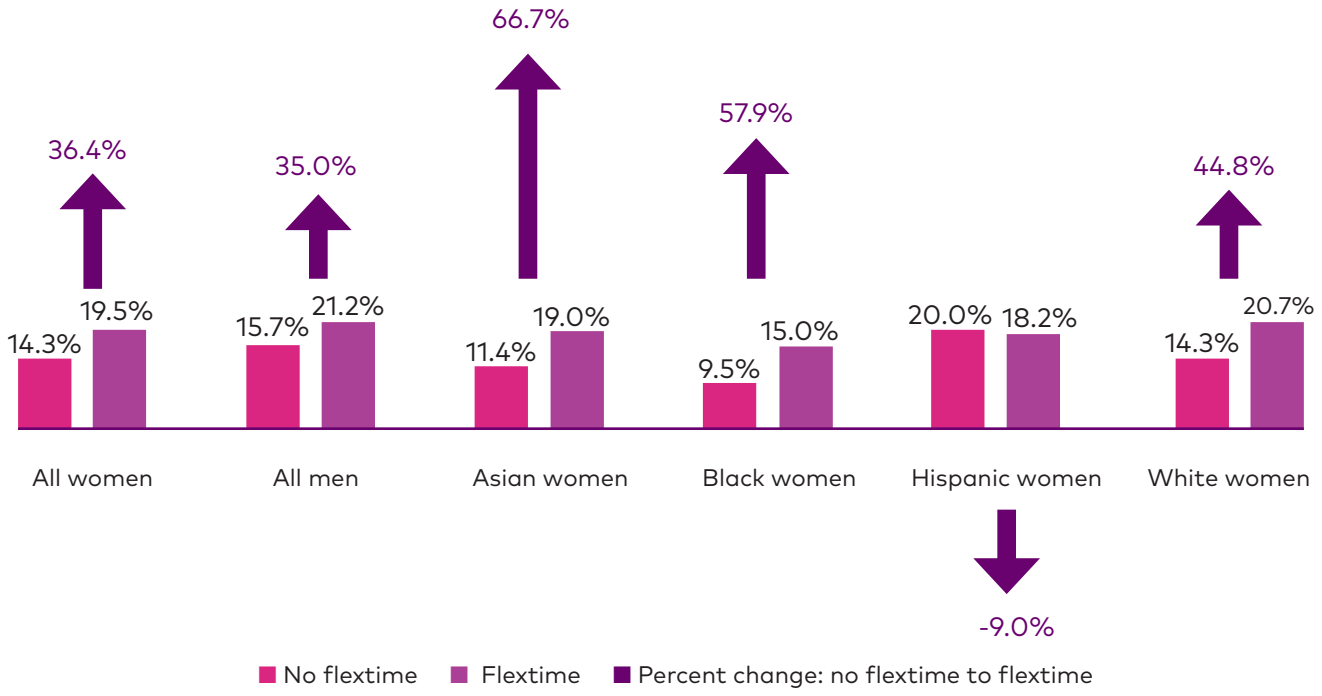


Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definitions of workplace flexibility and exercise, see Appendix Methodology; for information on statistical significance, see Appendix Table C6.

[23] Difference between those who had/ did not have access to remote work is significant at one percent levels for Asian, Black, and White women; see Appendix Table C6.

Flextime, or the ability to change starting and finishing times, also increased the likelihood of exercising by more than a third (36.4 percent) for all women workers, with gains particularly substantial and statistically significant for Asian women (66.7 percent higher) and Black women (57.9 percent higher), as well as for White women (44.8 percent; see Figure 10 and Appendix Table C6). On the other hand, the difference in exercise was negative for Latina women, though not statistically significant (Appendix Table C6).

Figure 10. The Change in the Likelihood of Exercising for Workers with Flextime Compared to Other Workers, by Gender and Race/Ethnicity

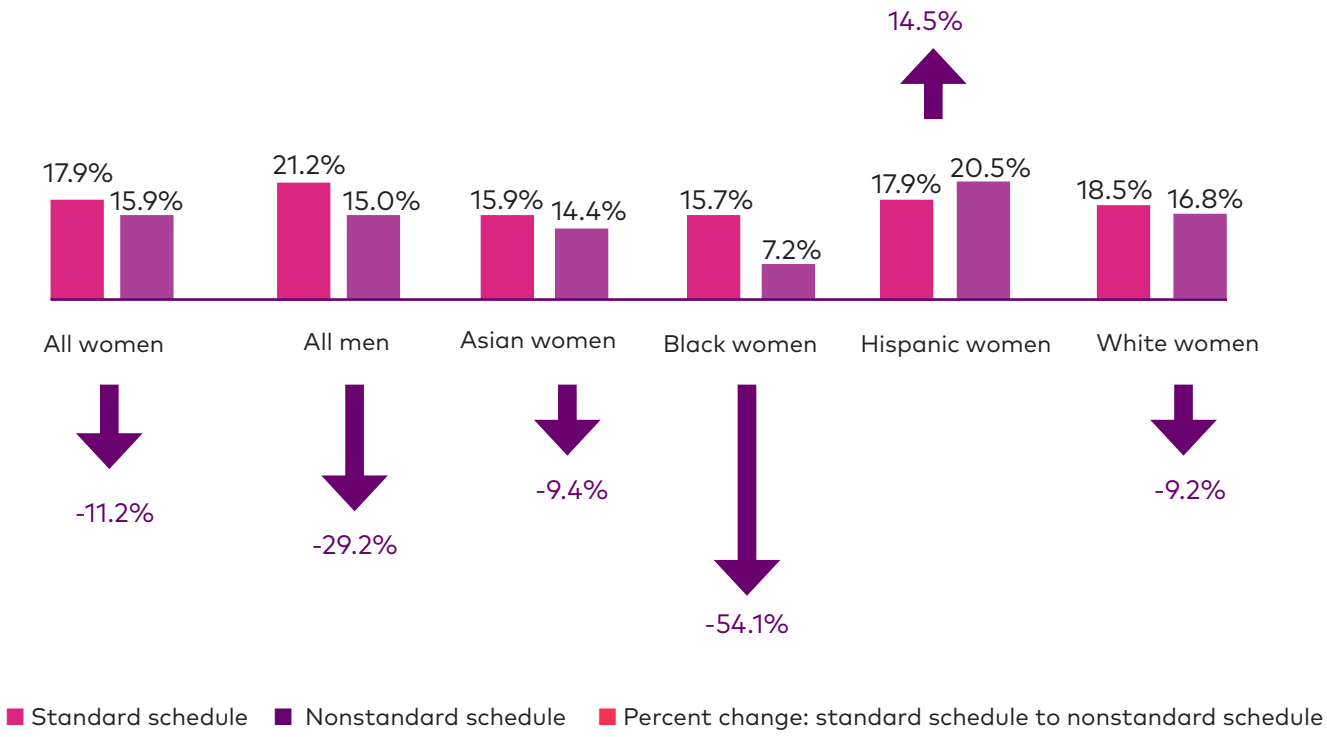


Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definitions of workplace flexibility and exercise, see Appendix Methodology; for information on statistical significance, see Appendix Table C6.

Working nonstandard schedules, on the other hand, was associated with a significantly lower likelihood of exercising. Women on nonstandard schedules were 11.2 percent less likely to exercise than those on standard schedules; the negative association was particularly strong for Black women (54.1 percent lower than those working on standard schedules; see Figure 11).[24] Latina women again were the only group where exercise was substantially more likely for those on nonstandard schedules. However, other than for Black women, all changes in exercise likelihood between those with nonstandard and standard schedules were not significant (Appendix Table C6).

[24] Difference significant at one percent level, see Appendix Table C6.

Figure 11. The Change in the Likelihood of Exercising for Workers with Nonstandard Schedule Compared to Other Workers, by Gender and Race/Ethnicity



Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definitions of workplace flexibility and exercise, see Appendix Methodology; for information on statistical significance, see Appendix Table C6.

In summary, time use data found a strong positive correlation between access to employee-centered flexible working practices and the likelihood of exercising. This positive effect was particularly strong and statistically significant for Asian and Black women, who overall had the lowest likelihood of physical exercise. The associations between exercise and workplace flexibility for Latina women were not significant across all three types of flexibility.

Conclusions

Time use data highlight substantial gender, racial, and ethnic disparities in access to workplace flexibility. Men were more likely than women to have access to flexible working policies, including among caregivers. Black and Latina women were least likely to have access to remote work and flextime and most likely to work nonstandard schedules, again including among caregivers. The data show that those who held the highest status occupations, achieved the highest level of educational attainment, and had the highest earnings were also most likely to have choice and control over their schedules and work location, compounding the disadvantages for Black and Latina women who were least likely to be in such jobs.

This research has shown that access to flexible work policies had a clear positive impact on the likelihood of exercise. Black women were least likely to exercise, irrespective of earnings. Yet Black women who had access to flextime and remote work had significantly higher exercise rates than their counterparts who lacked such access. Differences in exercise are due to a number of factors beyond job quality, including the availability of safe and affordable exercise options. But the research suggests that increasing access to employee-centered workplace flexibility, such as flextime and remote work, can help move the needle toward healthier lifestyles and more equitable health outcomes.

The analysis in this report is based on data collected before the COVID-19 pandemic. Accordingly, it provides a baseline to gauge changes in access to flexible work by gender and race/ethnicity since the pandemic. The need for flexible work options such as remote work was acutely highlighted by the pandemic, when schools and child care facilities closed, and millions of working women had to juggle child care, caring for a sick family member, and tending to their own health as well as others'. Since the pandemic, options for remote work, in particular, have increased; the tight post-COVID-19 labor market may also have increased employees' choice over work arrangements. The next round of the ATUS Leave Module, the data collection for which is scheduled to begin in 2025, will shed light on any post-pandemic changes in access to employee-centered flexible work practices and highlight any reductions in gender, racial, and ethnic differences in access.

The research has certain data and sample size limitations, particularly regarding the measurement of health and well-being. Because the ATUS Leave Module 2017–2018 was not conducted during the same years as the ATUS Well-Being Module (2010, 2012, 2013, and 2021), it was not possible to assess any connections between workplace flexibility and a broader array of well-being and health measurements. Instead, we constructed an indicator from the time use activities in the general ATUS survey by identifying whether an individual engaged in any sports, exercise, or recreational activities on a reference day. While this approach is in line with other studies that have used the ATUS to study physical activity and health outcomes (see Fried 2016; Mullahy and Robert 2008), it clearly only captures a partial picture of health-related activities. A second major limitation concerns the size of the ATUS sample, precluding a more comprehensive analysis of racial and ethnic differences in access to flexible working and exercise by occupation and caregiving status. Native women's experiences

had to be excluded completely from the analyses, and Asian women's in some instances because of insufficient samples.

The research highlights the contribution of flexible work policies to healthier lifestyles. The findings suggest that more equitable access to employee-centered workplace flexibility and greater predictability and regularity of schedules could play a role in reducing racial and ethnic health disparities. A number of states and localities have passed statutes and regulations to limit the negative consequences of employer-centered workplace flexibility, particularly of unpredictable schedules (A Better Balance 2021). In contrast to other high-income countries, the United States lacks statutes that would help employees access positive flexibility, such as remote work, flextime, or reduced hours (European Commission 2024; Hegewisch and Gornick 2008). Public policies aimed at improving access to employee-centered flexible work and reducing unpredictable employer-centered flexibility can make it easier for women to pursue healthy lifestyles.

Appendix A: Methodology

The research uses the American Time Use Survey (ATUS) and the American Time Use Survey Leave Module to examine the relationship between workplace flexibility and exercise for women across different demographic groups in 2017 and 2018. The ATUS sample is drawn from the Current Population Survey, which surveys respondents residing in the US who are at least 15 years old; active military personnel and persons living in institutions are excluded.[25] Time use is constructed from time diaries of respondents who are asked how they spent their time "yesterday" over a 24-hour period, starting at 4:00 a.m. the day prior to the interview. Interview days are randomized, with 50 percent of the sample on weekdays and 50 percent on weekend days. The time diaries include each activity on which a respondent spends time, including the activity's duration and, in most instances, who was present and where the activity took place. See US Bureau of Labor Statistics (2024) for more details on the survey procedure.

The research sample includes all wage and salary workers above age 15, following those included in the American Time Use Survey Leave Module 2017–2018. The ATUS Leave Module asks an extensive question on workplace flexibility for the wage and salaried workers in the main ATUS. Since this research explores the interaction between workplace flexibility and individuals spending time exercising, the sample consists of workers in the ATUS Leave Module 2017–2018. Table A1 breaks down the sample by gender, race, and ethnicity.

The research focuses on women across four different racial and ethnic groups, defined as: non-Hispanic Whites alone, non-Hispanic Blacks alone, non-Hispanic Asians alone, and Hispanics who can be of any race. Asian includes Native Hawaiians and Pacific Islanders. As described in Table A1, we dropped the 'Others' race category due to insufficient sample size.

Table A1. Sample by Gender and Race/Ethnicity

	Men	Women	Total
Non-Hispanic White	3,224	3,347	6,571
Non-Hispanic Black	542	771	1,313
Non-Hispanic Asian	266	259	525
Hispanic	841	680	1,521
Total included in analysis	4,873	5,057	9,930
Others (incl. Native women; more than one race)	66	75	141
Total	4,939	5,132	10,071

Source: The American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race.

[25] See Mullahy and Robert (2008) for detailed description on the sampling process for ATUS.

Workplace flexibility is measured by three indicators and constructed from the American Time Use Survey Leave Module 2017–2018 (Table A2). *Flextime* is defined by whether an individual can change the times they begin and end work. *Remote work* asks whether an individual can work at home. A *nonstandard schedule* is defined as working between 6 p.m. and 6 a.m., on the weekends, or at varying times.

Table A2. Definitions of Workplace Flexibility Indicators

Workplace flexibility	ATUS leave questionnaire
Flextime	**Q:** Do you have flexible work hours that allow you to vary or make changes in the times you begin and end work? A: Yes
Remote work	**Q:** As part of your (main) job, can you work at home? A: Yes
Nonstandard schedule	**Q:** On your (main/current) job, do you USUALLY, work a daytime schedule or some other schedule? A: Non-daytime—most work is done outside 6 a.m. and 6 p.m. OR USUALLY works on Saturday or Sunday or varies

Source: The American Time Use Survey Leave Module 2017–2018; U.S. Bureau of Labor Statistics 2022.

The ATUS includes questions about exercising, defined as whether an individual participated in sports, exercise, or recreation on a reference day, collected through the time diary process described above. The ATUS codes close to 40 different activities under sports, exercise, and recreation, ranging from aerobics to walking and yoga. In this research, exercise is reported in a binary manner (yes/no regarding any time spent on the reference day). Only about 18 percent of the total sample spent any time engaging in physical activity on a given day. For this reason, we decided to focus on a binary indicator describing the likelihood of exercise for individuals for our analysis rather than only focusing on those who have spent time exercising. In this way, we analyze exercise at the extensive margin rather than the intensive margin to include all workers in the analysis.

Appendix B: Workplace Flexibility

Table B1. Workplace Flexibility by Demographic Characteristics

	Flextime	Remote work	Nonstandard schedule
A. Total sample			
All women	55.6%	28.5%	34.6%
All men	57.2%	29.3%	37.8%
B. Race/ethnicity (women only)			
Asian	52.2%	30.8%	34.2%
Black	51.9%	18.8%	39.2%
Hispanic	53.1%	18.1%	41.4%
White	57.1%	32.8%	32.2%
C. Occupations (women only)			
Management and professional	55.8%	41.5%	22.9%
Office and sales	59.1%	24.9%	34.6%
Service and retail	55.5%	5.5%	65.7%
Other	38.6%	5.8%	43.3%
D. Employment (women only)			
Full-time	52.8%	32.5%	27.4%
Part-time	64.1%	16.0%	57.1%
E. Earnings (women and full-time only)			
Top third	64.0%	60.8%	18.3%
Middle third	52.8%	35.4%	20.5%
Bottom third	46.8%	15.2%	37.4%
F. Education (women only)			
High school or less	53.9%	12.6%	51.2%
Some college or associate's degree	55.1%	19.4%	38.3%
Bachelor's degree or more	57.0%	45.1%	21.1%
G. Caregiving (women only)			
Care	55.9%	31.0%	32.5%
Child care	56.16	32.2%	31.5%
Adult care	54.3%	27.1%	36.8%
No care	55.3%	27.0%	36.0%

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women. For definition of workplace flexibility, see Appendix A: Methodology.

Table B2. Share of Workers Across Occupations by Gender and Race/Ethnicity

	Management and professional	Office and sales	Service and retail	Manufacturing and construction
All women	49.0%	27.7%	16.8%	6.5%
All men	38.9%	14.7%	15.5%	30.8%
Asian women	61.6%	17.6%	15.2%	5.6%
Black women	39.6%	25.1%	25.8%	9.5%
Hispanic women	36.7%	27.3%	25.5%	10.5%
White women	52.7%	29.1%	13.1%	5.0%

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Sample sizes are insufficient for including Native women.

Table B3. Share of Workers Across Education, Income, Caregiving, and Part-Time Status, by Gender and Race/Ethnicity

	College	Low-income	Care	Part-time
All women	43.3%	44.1%	39.2%	24.3%
All men	37.5%	32.0%	29.5%	14.3%
Asian women	65.0%	29.9%	38.2%	18.6%
Black women	32.8%	54.2%	37.8%	20.8%
Hispanic women	25.9%	61.7%	40.6%	29.8%
White women	47.7%	39.5%	39.3%	24.2%

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. Low-income refers to the bottom third of earners who work at least 35 hours per week. Sample sizes are insufficient for including Native women.

Appendix C: Statistical Significance of Workplace Flexibility and Exercise Analyses

Table C1. Differences in Workplace Flexibility by Gender: T-test

	Women	Men	Difference	T-test	P-value
Panel A. Total					
Flextime	55.6%	57.2%	-1.7%	-1.66	**0.097**
Remote work	28.5%	29.3%	-0.8%	-0.85	0.393
Nonstandard schedule	34.6%	37.8%	-3.1%	-3.24	**0.001**
Panel B. Management					
Flextime	55.8%	71.5%	-15.7%	-11.38	**0.000**
Remote work	41.5%	57.7%	-16.2%	-11.28	**0.000**
Nonstandard schedule	22.9%	19.6%	3.2%	2.74	**0.006**
Panel C. Service					
Flextime	55.5%	53.6%	1.9%	0.70	0.486
Remote work	5.5%	7.0%	-1.6%	-1.21	0.228
Nonstandard schedule	65.7%	67.1%	-1.5%	-0.57	0.569
Panel D. Caregivers					
Flextime	55.9%	59.3%	-3.4%	-2.16	0.031
Remote work	31.0%	36.6%	-5.6%	-3.80	**0.000**
Nonstandard schedule	32.5%	31.9%	0.1%	0.37	0.710

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. The statistics are drawn from two-tailed t-tests. Sample sizes are insufficient for including Native women. For definition of workplace flexibility, see Appendix A: Methodology. Bold figures indicate the likelihood of the difference being due to chance is less than 5 percent.

Table C2. Differences in Workplace Flexibility for Asian and White Women: T-test

	Asian women	White women	Difference	T-test	P-value
Panel A. Total					
Flextime	52.2%	57.1%	-2.5%	-1.58	0.120
Remote work	30.8%	32.8%	-0.1%	-0.67	0.502
Nonstandard schedule	34.2%	32.2%	1.0%	0.68	0.498
Panel B. Management					
Flextime	57.0%	56.0%	0.1%	0.26	0.792
Remote Work	42.7%	43.7%	0.1%	-0.25	0.803
Nonstandard schedule	22.6%	22.2%	0.0%	0.11	0.911
Panel C. Service					
Flextime	37.8%	57.2%	-9.7%	-2.22	**0.027**
Remote work	1.6%	6.3%	-2.4%	-1.14	0.253
Nonstandard schedule	77.9%	68.5%	4.7%	1.15	0.250
Panel D. Caregivers					
Flextime	56.4%	56.6%	0.0%	-0.05	0.962
Remote work	25.6%	35.4%	-4.9%	-2.24	**0.025**
Nonstandard schedule	43.5%	29.9%	6.8%	3.17	**0.002**

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. The statistics are drawn from two-tailed t-tests. Sample sizes are insufficient for including Native women. For definition of workplace flexibility, see Appendix A: Methodology. Bold figures indicate the likelihood of the difference being due to chance is less than 5 percent.

Table C3. Differences in Workplace Flexibility for Black and White Women: T-test

	Black women	White women	Difference	T-test	P-value
Panel A. Total					
Flextime	51.9%	57.1%	-5.2%	-2.52	**0.012**
Remote work	18.8%	32.8%	-13.9%	-7.30	**0.000**
Nonstandard schedule	39.2%	32.2%	7.0%	3.56	**0.000**
Panel B. Management					
Flextime	55.6%	56.0%	0.4%	-0.01	0.904
Remote work	33.3%	43.7%	-10.4%	-3.38	**0.001**
Nonstandard schedule	21.7%	22.2%	-0.5%	-0.21	0.834
Panel C. Service					
Flextime	54.1%	57.2%	-3.1%	-0.65	0.516
Remote work	3.8%	6.3%	-2.5%	-1.14	0.255
Nonstandard schedule	62.0%	68.5%	-6.5%	-1.45	0.147
Panel D. Caregivers					
Flextime	49.3%	56.6%	-7.4%	-2.40	**0.017**
Remote work	23.1%	35.4%	-12.4%	-4.24	**0.000**
Nonstandard schedule	36.4%	29.9%	6.5%	2.25	**0.024**

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. The statistics are drawn from two-tailed t-tests. Sample sizes are insufficient for including Native women. For definition of workplace flexibility, see Appendix A: Methodology. Bold figures indicate the likelihood of the difference being due to chance is less than 5 percent.

Table C4. Differences in Workplace Flexibility for Hispanic and White Women: T-test

	Hispanic women	White women	Difference	T-test	P-value
Panel A. Total					
Flextime	53.1%	57.1%	-1.3%	-1.99	**0.047**
Remote work	18.1%	32.8%	-4.9%	-7.98	**0.000**
Nonstandard schedule	41.4%	32.2%	3.1%	4.81	**0.000**
Panel B. Management					
Flextime	54.5%	56.0%	-0.5%	-0.48	0.629
Remote work	35.3%	43.7%	-2.8%	-2.73	**0.006**
Nonstandard schedule	28.0%	22.2%	1.9%	2.21	**0.027**
Panel C. Service					
Flextime	56.5%	57.2%	-0.2%	-0.14	0.885
Remote work	5.8%	6.3%	-0.2%	-0.24	0.807
Nonstandard schedule	60.1%	68.5%	-2.8%	-1.93	0.055
Panel D. Caregivers					
Flextime	58.1%	56.6%	0.5%	0.51	0.613
Remote work	20.6%	35.4%	-5.0%	-5.48	**0.000**
Nonstandard schedule	36.4%	29.9%	2.2%	2.42	**0.016**

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. The statistics are drawn from two-tailed t-tests. Sample sizes are insufficient for including Native women. For definition of workplace flexibility, see Appendix A: Methodology. Bold figures indicate the likelihood of the difference being due to chance is less than 5 percent.

Table C5. Exercise by Gender and Race/Ethnicity: T-test

Panel A. Exercise by gender				
Women	**Men**	**Difference**	**T-test**	**P-value**
17.2%	18.8%	-1.6%	-2.11	**0.035**
Panel B. Exercise by race/ethnicity				
Asian women	**White women**	**Difference**	**T-test**	**P-value**
15.4%	17.9%	1.3%	-1.05	0.294
Black women	**White women**	**Difference**	**T-test**	**P-value**
12.4%	17.9%	-5.6%	-3.56	**0.000**
Hispanic women	**White women**	**Difference**	**T-test**	**P-value**
19.0%	17.9%	0.4%	0.7	0.483

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. The statistics are drawn from two-tailed t-tests. Sample sizes are insufficient for including Native women. For definition of exercise, see Appendix A: Methodology. Bold figures indicate the likelihood of the difference being due to chance is less than 5 percent. Bold figures indicate the likelihood of the difference being due to chance is less than 5 percent.

Table C6. Exercise and Workplace Flexibility by Gender and Race/Ethnicity: T-test

	All women	All men	Asian women	Black women	Hispanic women	White women
A. Flextime						
No flextime	14.3%	15.7%	11.4%	9.5%	20.0%	14.3%
Flextime	19.5%	21.2%	19.0%	15.0%	18.2%	20.7%
Difference	5.2%	5.5%	7.5%	5.5%	-1.8%	6.4%
T-test	4.86	4.83	1.68	2.34	-0.59	4.80
P-Value (two tail)	**0.000**	**0.000**	**0.094**	**0.019**	0.556	**0.000**
B. Remote work						
No remote work	15.4%	15.4%	10.2%	10.5%	18.3%	16.2%
Remote work	21.8%	27.2%	27.1%	20.2%	22.2%	21.5%
Difference	6.4%	11.9%	16.9%	9.6%	3.9%	5.3%
T-test	5.44	9.7%	3.6%	3.20	0.990	3.760
P-Value (two tail)	**0.000**	**0.000**	**0.000**	**0.001**	0.324	**0.000**
C. Nonstandard schedule						
Standard schedule	17.9%	21.2%	15.9%	15.7%	17.9%	18.5%
Nonstandard schedule	15.9%	15.0%	14.4%	7.2%	20.5%	16.8%
Difference	-2.0%	-6.2%	-1.6%	-8.5%	2.6%	-1.7%
T-test	-1.8	-5.36	-0.33	-3.52	0.85	-1.17
P-Value (two tail)	**0.072**	**0.000**	0.742	**0.000**	0.398	0.240

Source: IWPR analysis of the American Time Use Survey 2017–2018 and the American Time Use Survey Leave Module 2017–2018.
Notes: Wage and salaried workers aged 15 years and older. Racial categories are non-Hispanic; Hispanic or Latina women may be of any race. The statistics are drawn from two-tailed t-tests. Sample sizes are insufficient for including Native women. For definition of workplace flexibility and exercise, see Appendix A: Methodology. Bold figures indicate the likelihood of the difference being due to chance is less than 5 percent.

References

A Better Balance. 2021. *State and City Laws and Regulations on Fair and Flexible Scheduling*, Fact Sheet. New York: A Better Balance. https://www.abetterbalance.org/wp-content/uploads/2021/08/Updated-Fair-Flexible-Fact-Sheet.pdf.

Allen, Tammy D., and Jeremy Armstrong. 2006. "Further Examination of the Link between Work-Family Conflict and Health: The Role of Health-Related Behaviors." *American Behavioral Scientist* 49(9):1204–21.

Asfaw, Abay. 2022. "Racial and Ethnic Disparities in Teleworking Due to the COVID-19 Pandemic in the United States: A Mediation Analysis." *International Journal of Environmental Research and Public Health* 19(8): 4680. https://doi.org/10.3390/ijerph19084680.

Bara, Ana-Claudia, and Sara Arber. 2009. "Working Shifts and Mental Health: Findings from the British Household Panel Survey (1995–2005)." *Scandinavian Journal of Work, Environment & Health* 35(5): 361–67.

Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis. 2021. "Why working from home will stick," *National Bureau of Economic Research Working Paper* 28731.

Brescoll, Victoria L., Jennifer Glass, and Alexandra Sedlovskaya. 2013. "Ask and ye shall receive? The dynamics of employer-provided flexible work options and the need for public policy." *Journal of Social Issues* 69, no. 2: 367-88.

Buecker, Susanne, Thomas Simacek, Britta Ingwersen, Sophia Terwiel, and Bianca A. Simonsmeier. 2021. "Physical activity and subjective well-being in healthy individuals: a meta-analytic review." *Health Psychology Review* 15, no. 4: 574-92.

Cho, Youngmin. 2017. "The Effects of Nonstandard Work Schedules on Workers' Health: A Mediating Role of Work-to-Family Conflict." *International Journal of Social Welfare* 27(1): 74–87.

Christian, Thomas James. 2009. "Opportunity Costs Surrounding Exercise and Dietary Behaviors: Quantifying Trade-Offs Between Commuting Time and Health-Related Activities." SSRN Scholarly Paper. Rochester, NY. https://doi.org/10.2139/ssrn.1490117.

Costa, Giovanni. 2003. "Shift Work and Occupational Medicine: An Overview." *Occupational Medicine* 53(2): 83–88.

Davis, Steven. 2024. "The Big Shift in Working Arrangements: Eight Ways Unusual." *NBER Working Paper Series* 32363 (April). Cambridge, MA: National Bureau of Economic Research.

European Commission. 2024. *EU legislation on family leaves and work-life balance*. https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/women-labour-market-work-life-balance/eu-legislation-family-leaves-and-work-life-balance_en#right-to-request-flexible-working-arrangements.

Federal Reserve Bank Board of Governors. 2014. *Report on the Economic Well-Being of U.S. Households in 2013*. Washington, DC: Board of Governors of the Federal Reserve System.

Fenwick, Rudy, and Mark Tausig. 2001. "Scheduling Stress: Family and Health Outcomes of Shift Work and Schedule Control." *American Behavioral Scientist* 44(7):1179–98.

Fenwick, Rudy, and Mark Tausig. 2004. "The Health and Family-Social Consequences of Shift Work and Schedule Control: 1977 and 1997," in *Fighting For Time: Shifting Boundaries of Work and Social Life*, edited by Cynthia Fuchs Epstein and Arne L. Kalleberg. New York: Russell Sage.

Frevert, Tonia, Sartoris Culbertson, and Ann H. Huffman. 2015. "Exploring the Double Jeopardy Effect: The Importance of Gender *and* Race in Work–Family Research," in *Gender and the Work-Family Experience,* edited by Maura Mills. New York: Springer, Cham. https://doi.org/10.1007/978-3-319-08891-4_4.

Fried, Linda P. 2016. "Interventions for human frailty: physical activity as a model." *Cold Spring Harbor Perspectives in Medicine* 6, no. 6: a025916.

Gerstel, Naomi, and Dan Clawson. 2014. "Class advantage and the Gender Divide: Flexibility on the Job and at Home." *American Journal of Sociology* 120(2): 395–431. https://doi.org/10.1086/678270.

Goguen, Kandice. 2017. "Flexible and Fit: Examining the Relationship Between Flexible Work Arrangements and Employee Health." *All Dissertations* 1975-8. Clemson, South Carolina: Clemson University. https://tigerprints.clemson.edu/all_dissertations/1975.

Golden, Lonnie, and Jaeseung Kim. 2017. "Irregular work shifts, work schedule flexibility and associations with work-family conflict and work stress in the US," in *Work-Life Balance in the Modern Workplace. Interdisciplinary Perspectives from Work-Family Research, Law and Policy*, edited by Sarah DeGroof. https://ssrn.com/abstract=3009948.

Golden, Lonnie, Heejung Chung, and Stephen Sweet. 2017. "Positive and Negative Application of Flexible Working Time Arrangements: Comparing the United States and the EU Countries," in *Handbook of Comparative Human Resource Management*, edited by Elaine Farndale, Chris Brewster, and Wolfgang Mayrhofer. https://ssrn.com/abstract=2881679.

Golden, Lonnie. 2001. "Flexible work schedules: Which workers get them?" *American Behavioral Scientist* 44, no. 7: 1157-78.

Graham, Melissa, Victoria Weale, Katrina A. Lambert, Natasha Kinsman, Ruth Stuckey, and Jodi Oakman. 2021. "Working at home: The impacts of COVID-19 on health, family-work-life conflict, gender, and parental responsibilities." *Journal of Occupational and Environmental Medicine* 63 (11): 938-43.

Grzywacz, Joseph G., Patrick R. Casey, and Fiona A. Jones. 2007. "The Effects of Workplace Flexibility on Health Behaviors: A Cross-Sectional and Longitudinal Analysis." *Journal of Occupational and Environmental Medicine* 49 (12): 1302. https://doi.org/10.1097/JOM.0b013e31815ae9bc.

Hegewisch, Ariane, and Janet C. Gornick. 2008. *Statutory routes to workplace flexibility in cross-national perspective.* Washington DC: Institute for Women's Policy Research and American University. https://worklifelaw.org/publications/flex-work-report.pdf.

Hegewisch, Ariane, and Valerie Lacarte. 2020. *Gender Inequality, Work Hours, and the Future of Work.* Washington, DC: Institute for Women's Policy Research. https://iwpr.org/wp-content/uploads/2020/07/C486_FOW-Work-Hours-Report.pdf.

Hegewisch, Ariane, Chandra Childers, and Heidi Hartmann. 2019. *Women, automation, and the future of work*. Washington DC: Institute for Women's Policy Research. https://iwpr.org/women-automation-and-the-future-of-work/.

Hofferth, Sandra L., Sarah M. Flood, Deborah Carr, and Yoonjoo Lee. 2018. "Physical Activity and Perceived Health: Can Time Diary Measures of Momentary Well-Being Inform the Association?" *Journal of Time Use Research* 2018. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6953972/.

Jacobs, Anna W., and Irene Padavic. 2015. "Hours, Scheduling and Flexibility for Women in the US Low-Wage Labour Force." *Gender, Work & Organization* 22 (1): 67–86. https://doi.org/10.1111/gwao.12069.

Joseph, Rodney P., Barbara E. Ainsworth, Colleen Keller, and Joan E. Dodgson. 2015. "Barriers to physical activity among African American women: an integrative review of the literature." *Women & Health* 55, no. 6: 679-99.

Kalleberg, Arne L. 2011. *Good jobs, bad jobs: The rise of polarized and precarious employment systems in the United States, 1970s-2000s*. New York: Russell Sage Foundation.

Kalleberg, Arne. 2009. "Precarious Work, Insecure Workers: Employment Relations in Transition." American Sociological Review 74(1):1–22.

Kelly, Erin L., and Phyllis Moen. 2007. "Rethinking the ClockWork of Work: Why Schedule Control May Pay Off at Work and at Home." *Advances in Developing Human Resources* 9(4): 487–506. https://doi.org/10.1177/1523422307305489.

Kelly, Erin L. et al. 2014. "Changing work and work-family conflict: Evidence from the work, family, and health network." *American Sociological Review* 79(3): 485-516.

Kim, Jaeseung, Julia R. Henly, Lonnie M. Golden, and Susan J. Lambert. 2020. "Workplace flexibility and worker well-being by gender." *Journal of Marriage and Family* 82(3): 892-910.

Knutsson, Anders. 2003. "Health Disorders of Shift Workers." *Occupational Medicine* 53(2):103–08.

Kossek, E. E., and B.A. Lautsch. 2018. "Work–life flexibility for whom? Occupational status and work–life inequality in upper, middle, and lower level jobs." *Academy of Management Annals*, 12(1), 5–36. https://doi.org/10.5465/annals.2016.0059.

Kosteas, Vasilios D. 2012. "The effect of exercise on earnings: Evidence from the NLSY." *Journal of Labor Research* 33(2): 225-50.

Kratz, Anna L., Dawn M. Ehde, and Charles H. Bombardier. 2014. "Affective mediators of a physical activity intervention for depression in multiple sclerosis." *Rehabilitation Psychology* 59(1): 57067.

Lambert, Susan, A. Haley-Lock, and Julia Henly. 2012. "Schedule flexibility in hourly jobs: Unanticipated consequences and promising directions." *Community, Work and Family* 15(3), 293–315. https://doi.org/10.1080/13668803.2012.662803.

Lambert, Susan, Peter Fugiel, and Julia Henly. 2014. "Precarious Work Schedules among Early-Career Employees in the US: A National Snapshot." Research brief. Chicago: University of Chicago.

Landivar, Christin, Rose Woods, and Gretchen Livingston. 2022. "Does Part-Time Work Offer Flexibility to Employed Mothers?" *Monthly Labor Review*. February. U.S. Bureau of Labor Statistics. https://www.bls.gov/opub/mlr/2022/article/pdf/does-part-time-work-offer-flexibility-to-employed-mothers.pdf.

Lautsch, Brenda A., Ellen Ernst Kossek, and Susan C. Eaton. 2009. "Supervisory Approaches and Paradoxes in Managing Telecommuting Implementation." *Human Relations* 62(6): 795–827. https://doi.org/10.1177/0018726709104543.

Li, Andrew, Jonathan A. Shaffer, Zhonghao Wang, and Jason L. Huang. 2021. "Work-Family Conflict, Perceived Control, and Health, Family, and Wealth: A 20-Year Study." *Journal of Vocational Behavior* 127 (June):103562. https://doi.org/10.1016/j.jvb.2021.103562.

Lyness, Karen S., Janet C. Gornick, Pamela Stone, and Angela Grotto. 2012. "It's all about control: Worker control over schedule and hours in cross-national context." *American Sociological Review* 77(6), 1023–49. https://doi.org/10.1177/0003122412465331.

Mailey, Emily L., Jennifer Huberty, Danae Dinkel, and Edward McAuley. 2014. "Physical Activity Barriers and Facilitators among Working Mothers and Fathers." *BMC Public Health* 14(1): 657. https://doi.org/10.1186/1471-2458-14-657.

McKeever, Grainne. 2020. "Remote Justice? Litigants in Person and Participation in Court Processes during Covid-19." *Modern Law Review*, August. https://www.modernlawreview.co.uk/mckeevers-remote-justice/.

McMenamin, Terence. 2007. "Time to work: Recent trends in shift work and flexible schedules." *Monthly Labor Review*. 130: 3-15.

Moen, Phyllis, Erin L. Kelly, Eric Tranby, and Qinlei Huang. 2011. "Changing Work, Changing Health: Can Real Work-Time Flexibility Promote Health Behaviors and Well-Being?" *Journal of Health and Social Behavior* 52(4): 404–29. https://doi.org/10.1177/0022146511418979.

Moen, Phyllis, Wen Fan, and Erin L. Kelly. 2013. "Team-Level Flexibility, Work-Home Spillover, and Health Behavior." *Social Science & Medicine* 84 (May): 69–79. https://doi.org/10.1016/j.socscimed.2013.02.011.

Mogilner, Cassie, Ashley Whillans, and Michael I. Norton. 2018. "Time, Money, and Subjective Wellbeing. in *Handbook of Well-Being*, edited by E. Diener, S. Oishi and L. Tay. Noba Scholar Handbook Series: Subjective Well-Being. Salt Lake City, UT: DEF Publishers.

Mullahy, John, and Stephanie Robert. 2008. "No Time to Lose? Time Constraints and Physical Activity." NBER working paper 14513. Cambridge, MA: National Bureau of Economic Research. https://doi.org/10.3386/w14513.

Okulicz-Kozaryn, Adam, and Lonnie Golden. 2018. "Happiness Is Flextime." *Applied Research in Quality of Life* 13(2): 355–69. https://doi.org/10.1007/s11482-017-9525-8.

Paek, Eunjeong. 2023. "Workplace Computerization and Inequality in Schedule Control." *Social Science Research* 116 (November):102939. https://doi.org/10.1016/j.ssresearch.2023.102939.

Pedersen, Daphne E. 2014. "Spillover and Crossover of Work-to-Family Conflict and the Health Behaviors of Dual-Earner Parents with Young Children." *Sociological Focus* 47(1): 45–60. https://doi.org/10.1080/00380237.2014.855980.

Peña, Jessica, Magdaliz Álvarez Figueroa, Merarys Rios-Vargas, and Rachel Marks. 2023. "One in Every Four Children in the United States Were of Hispanic Origin in 2020." United States Census Bureau. https://www.census.gov/library/stories/2023/05/hispanic-population-younger-but-aging-faster.html.

Pereira, Mark A., Sheryl L. Rifas-Shiman, Ken P. Kleinman, Janet W. Rich-Edwards, Karen E. Peterson, and Matthew W. Gillman. 2007. "Predictors of Change in Physical Activity During and After Pregnancy: Project Viva." *American Journal of Preventive Medicine* 32(4): 312–19. https://doi.org/10.1016/j.amepre.2006.12.017.

Powell, Kenneth E., Amanda E. Paluch, and Steven N. Blair. 2011. "Physical Activity for Health: What Kind? How Much? How Intense? On Top of What?" *Annual Review of Public Health* 32(1): 349–65. https://doi.org/10.1146/annurev-publhealth-031210-101151.

Powell, Lisa M., Sandy Slater, Frank J. Chaloupka, and Deborah Harper. 2006. "Availability of physical activity–related facilities and neighborhood demographic and socioeconomic characteristics: a national study." *American Journal of Public Health* 96(9): 1676-1680.

Presser, Harriet. 2003. *Working in a 24/7 Economy*. New York: Russell Sage Foundation.

Rajaratnam, Shantha, and Josephine Arendt. 2001. "Health in a 24-h Society." *The Lancet* 358: 999–1005.

Ray, Tapas K., and Regina Pana-Cryan. 2021. "Work flexibility and work-related well-being." *International journal of environmental research and public health* 18, no. 6: 3254.

Russell, Louise B., Yoko Ibuka, and Katharine G. Abraham. 2007. "Health-Related Activities in the American Time Use Survey." *Medical Care* 45(7): 680–85. https://doi.org/10.1097/MLR.0b013e3180455782.

Sato, Kaori, Sachiko Kuroda, and Hideo Owan. 2020. "Mental Health Effects of Long Work Hours, Night and Weekend Work, and Short Rest Periods." *Social Science & Medicine* 246 (February): 112774. https://doi.org/10.1016/j.socscimed.2019.112774.

Schneider, Daniel, and Kristen Harknett. 2019. "Consequences of Routine Work-Schedule Instability for Worker Health and Well-Being." *American Sociological Review* 84(1): 82–114. https://doi.org/10.1177/0003122418823184.

Schoenfeld, Brad, Alan Aragon, and James Krieger. (2013). "The effect of protein timing on muscle strength and hypertrophy: A meta-analysis." *Journal of the International Society of Sports Nutrition*. https://doi.org/10.1186/1550-2783-10-53.

Shifrin, Nicole V., and Jesse S. Michel. 2022. "Flexible Work Arrangements and Employee Health: A Meta-Analytic Review." *Work & Stress* 36(1): 60–85. https://doi.org/10.1080/02678373.2021.1936287.

Shockley, Kristen M., and Tammy D. Allen. 2007. "When Flexibility Helps: Another Look at the Availability of Flexible Work Arrangements and Work–Family Conflict." *Journal of Vocational Behavior* 71(3): 479–93. https://doi.org/10.1016/j.jvb.2007.08.006.

Storer, Adam, Daniel Schneider, and Kristen Harknett. 2020. "What Explains Racial/Ethnic Inequality in Job Quality in the Service Sector?" *American Sociological Review* 85(4): 537–72. https://doi.org/10.1177/0003122420930018.

Sweet, Steven, Elyssa Besen, Marcie Pitt-Catsouphes, and Tay K. McNamara. 2014. "Do options for job flexibility diminish in times of economic uncertainty?" *Work, Employment and Society* 28(6): 882–903. https://doi.org/10.1177/0950017014538335.

Tabak, Rachel G., J. Aaron Hipp, Christine M. Marx, Lin Yang, and Ross C. Brownson. 2016. "Which Worksite Supports for Healthy Weight Do Employees Use?" *Environment and Behavior* 48(1): 131–49. https://doi.org/10.1177/0013916515607311.

U.S. Bureau of Labor Statistics. 2019. "American Time Use Survey: American Time Use Survey Leave Module Microdata Files." Washington, DC: U.S. Bureau of Labor Statistics. https://www.bls.gov/tus/modules/lvdatafiles.htm.

U.S. Bureau of Labor Statistics. 2009. *Women in the Labor Force: A Databook*. Report 1018. Washington, DC: U.S. Bureau of Labor Statistics. https://www.bls.gov/cps/wlf-databook2009.htm.

U.S. Bureau of Labor Statistics. 2022. American Time Use Survey Activity Lexicon. Washington, DC: U.S. Bureau of Labor Statistics. https://www.bls.gov/tus/lexicons/lexiconnoex0322.pdf.

U.S. Bureau of Labor Statistics. 2024. "American Time Use Survey User's Guide." Washington, DC: U.S. Bureau of Labor Statistics. https://www.bls.gov/tus/atususersguide.pdf.

U.S. Department of Labor Women's Bureau. 2022. *Bearing the Cost*: *How Overrepresentation in Undervalued Jobs Disadvantaged Women During the Pandemic*. Washington DC: U.S. Department of Labor.

U.S. Department of Health and Human Services. 2008. "Physical Activity Guidelines Advisory Committee Report," Report to the Secretary of Health and Human Services. Washington, DC: U.S. Department of Health and Human Services. https://health.gov/sites/default/files/2019-10/CommitteeReport_7.pdf.

Zderic, Theodore W. and Marc T. Hamilton. 2006. "Physical Inactivity Amplifies the Sensitivity of Skeletal Muscle to the Lipid-Induced Downregulation of Lipoprotein Lipase Activity." *Journal of Applied Physiology* 100(1): 249–57. https://doi.org/10.1152/japplphysiol.00925.2005.

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