

How Did the Remote Work Revolution Change Our Work and Leisure Time?

Sabrina Wulff Pabilonia

U.S. Bureau of Labor Statistics

Victoria Vernon

SUNY Empire State University

NBER Gender in the Economy: Structural Transformation and Women's Time Use

March 27, 2026



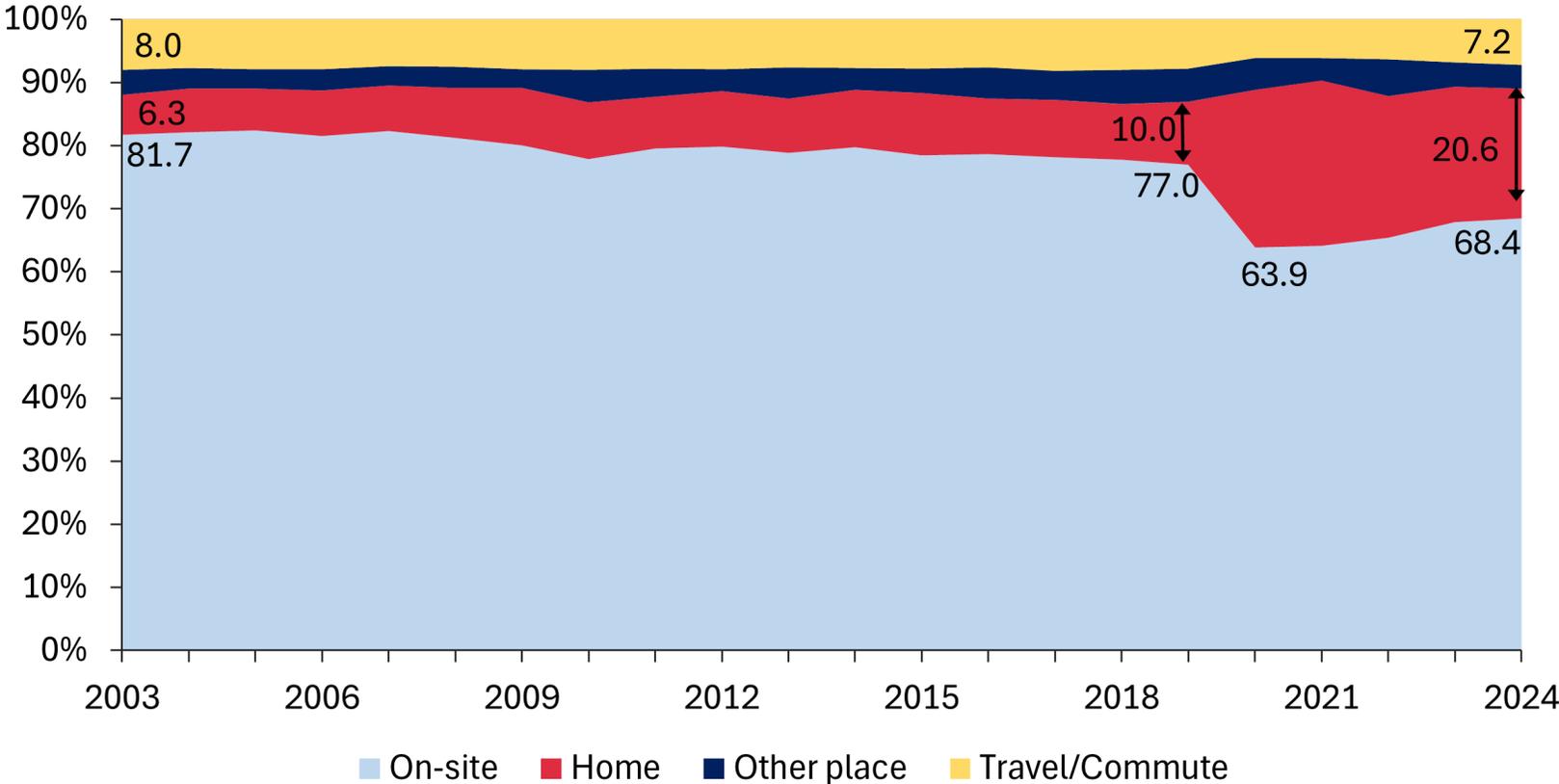
Disclaimer

The information in this presentation is being released for statistical purposes only. It is to inform interested parties and to encourage discussion of work in progress. All views expressed in this presentation are those of the authors and do not necessarily reflect the views or policies of the U.S. Bureau of Labor Statistics.



Percentage of time devoted to work, by location

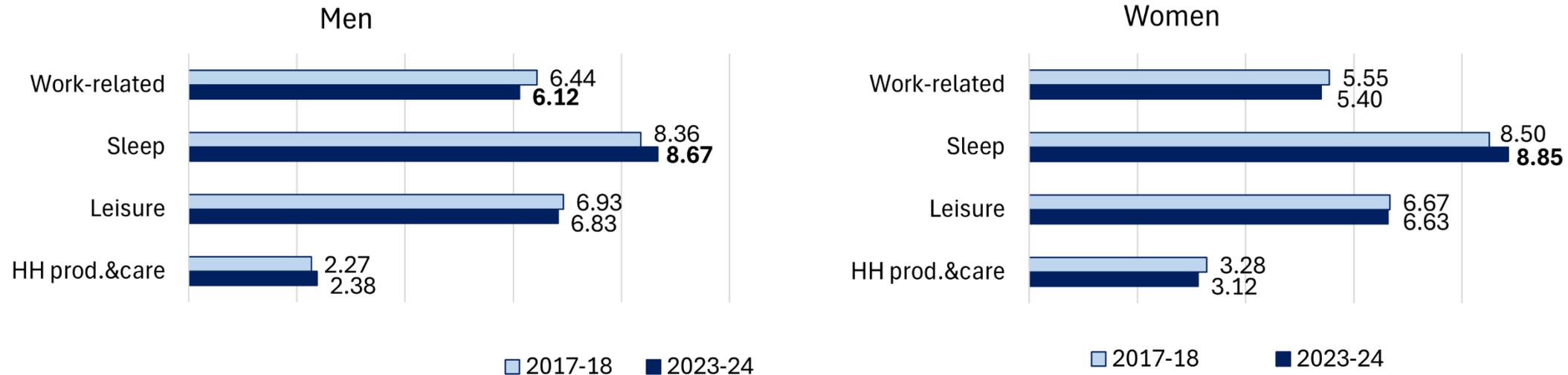
Remote work accelerated due to the pandemic, comprising 20.6% of total hours devoted to work in the U.S. in 2024.



Source: 2003–2024 American Time Use Survey, author’s calculations



Time use changes since 2017–18

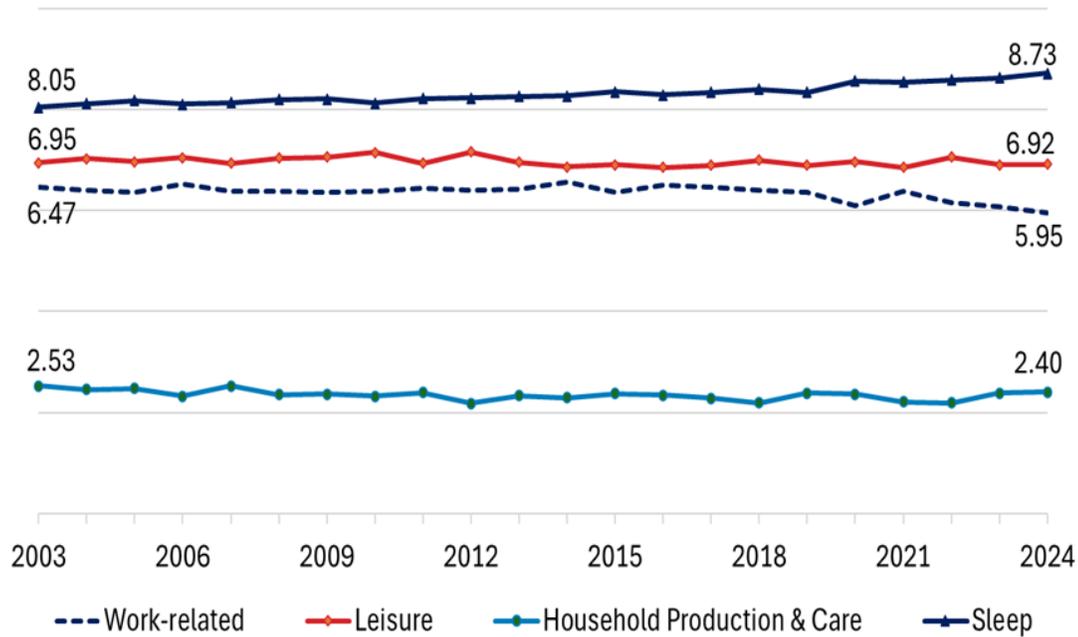


Sample: Wage and salary workers aged 22–64 (hours/day)
Note: Statistically significant differences are shown in bold.
Source: American Time Use Survey, authors' calculations

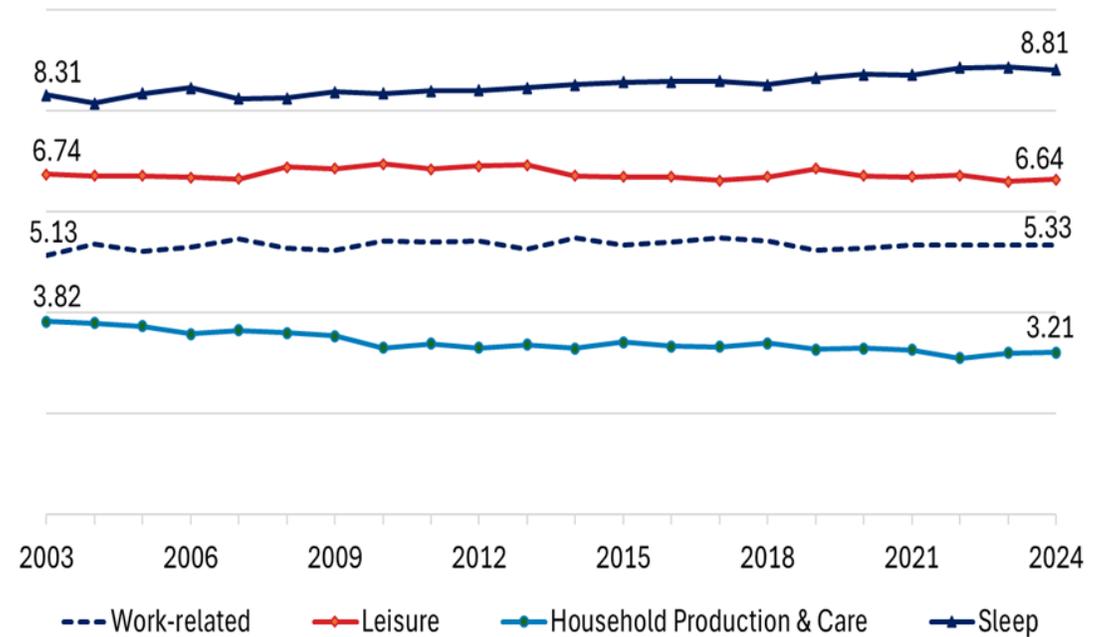


Time use changes over 21 years

Men



Women



Sample: Wage and salary workers aged 22–64 (hours/day)

Source: 2003–2024 American Time Use Survey, authors' calculations



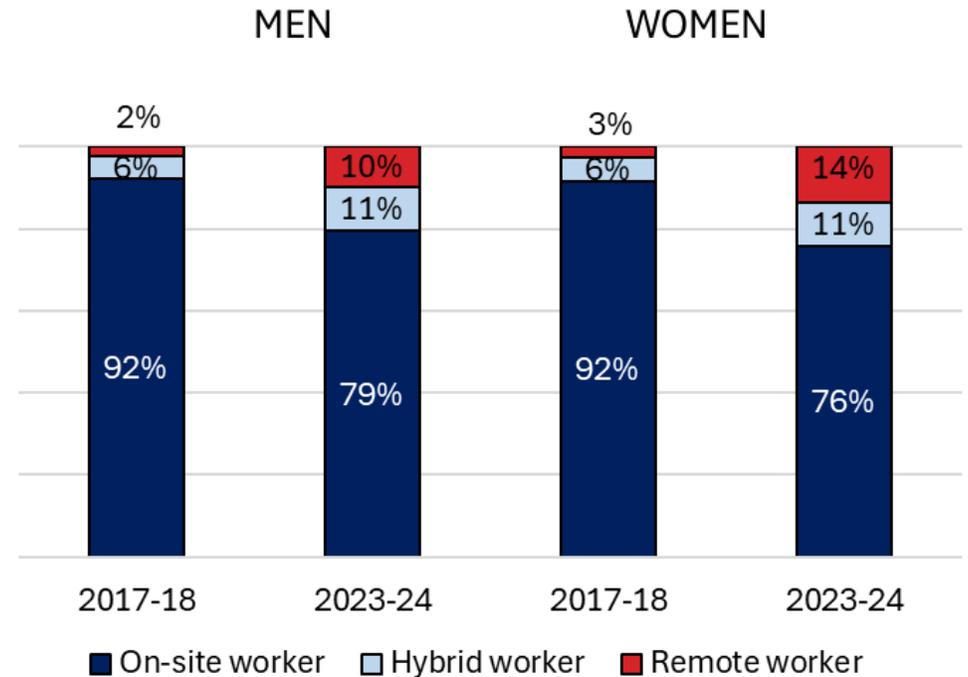
Data: Part 1

Sample 1: All days (no work requirement)

We classify workers into **3 worker types** based on work location arrangements.

- ATUS Leave and Job Flexibilities module 2017–18
 - ▶ **Remote worker**: #WFH days = #usual workdays
 - ▶ **Hybrid worker**: WFH ≥ 1 or more days per week but not all usual workdays
 - ▶ **On-site worker**: WFH <1 day per week

- Current Population Survey 2022–24
 - ▶ **Remote worker**: 100% of hours WFH last week
 - ▶ **Hybrid worker**: 20–99% of hours WFH last week
 - ▶ **On-site worker**: 0–19% of hours WFH last week



Source: American Time Use Survey, author's calculations

Sample	Years	On-site	Hybrid	Remote
Men	2017–18	3,492	208	91
Men	2023–24	2,239	369	361
Women	2017–18	3,528	235	145
Women	2023–24	2,047	338	412

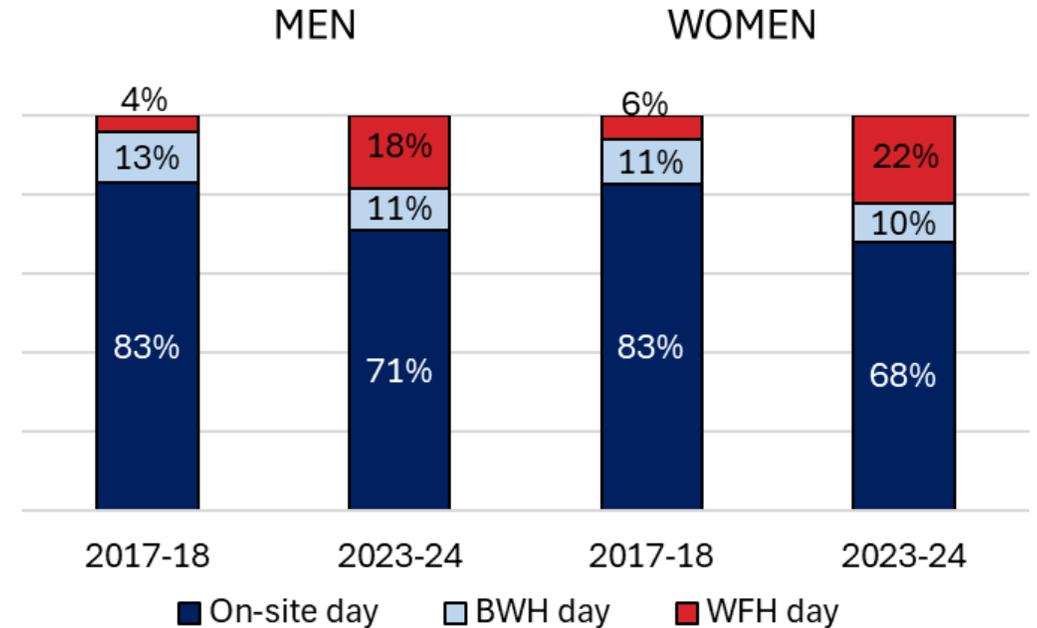
Data: Part 2

Sample 2: Workdays \geq 4h of paid work

We classify workdays into **3 workday types** based on work location.

- **WFH**: Work from home (WFH) $>$ 0, Workplace/3rd space = 0
- **On-site**: Workplace/3rd space $>$ 0, WFH=0
- **BWH**: Workplace/3rd space $>$ 0, WFH $>$ 0

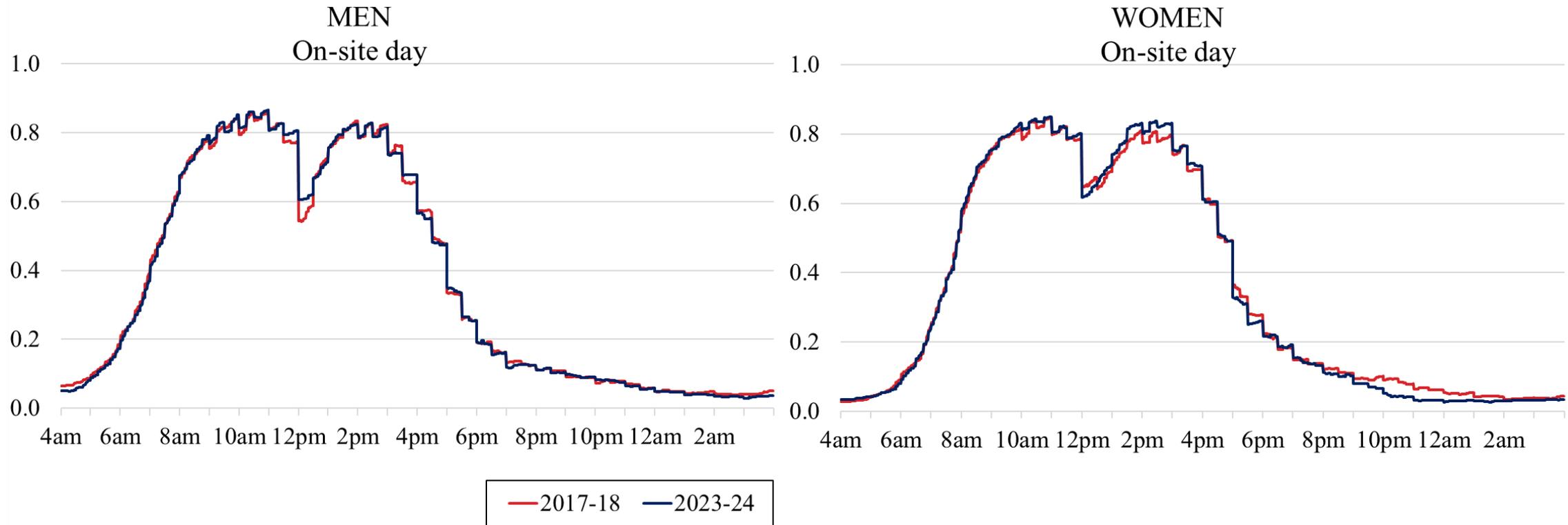
(BWH = bring work home)



Source: American Time Use Survey, author's calculations

Sample	Years	On-site	BWH	WFH
Men	2017–18	1,589	265	110
Men	2023–24	1,055	172	289
Women	2017–18	1,489	232	122
Women	2023–24	856	129	310

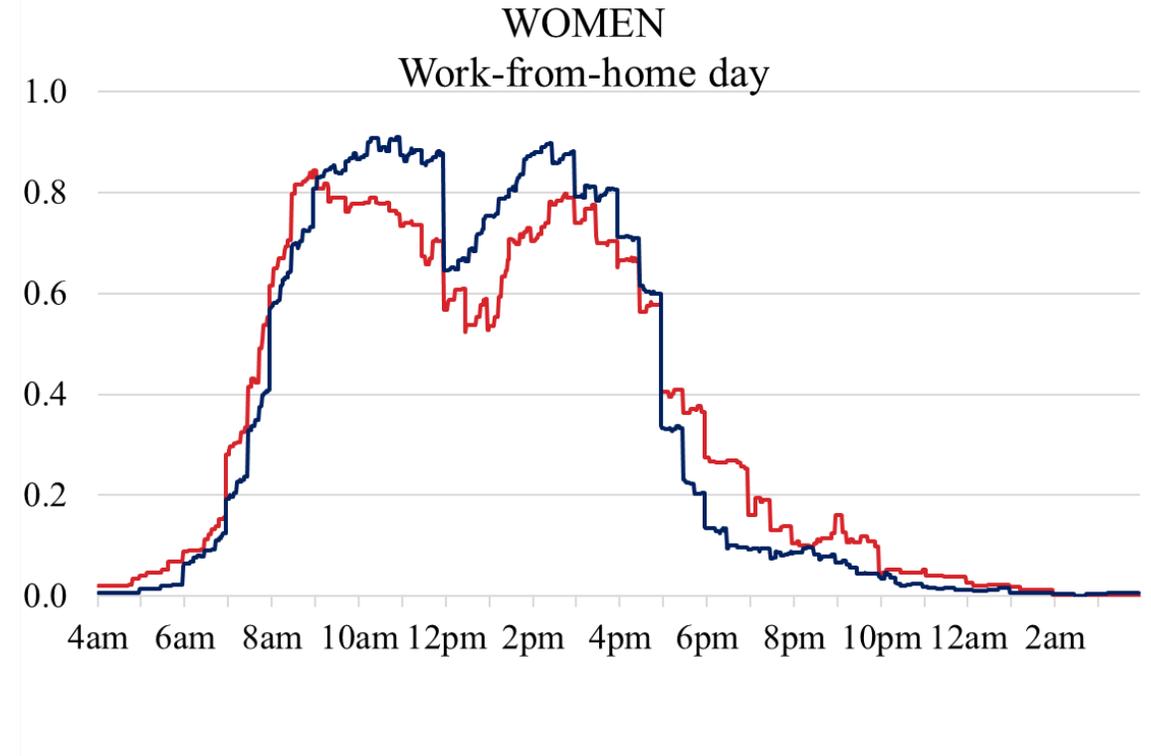
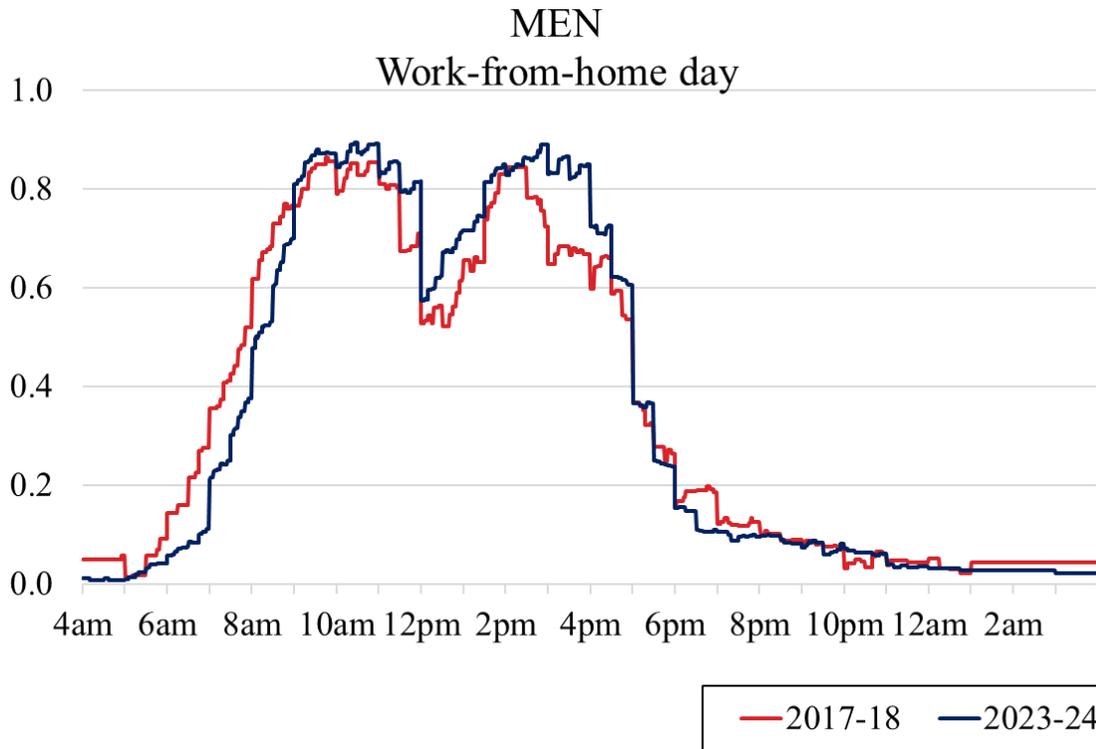
Share of workers engaged in paid work on on-site days



Source: American Time Use Survey, author's calculations



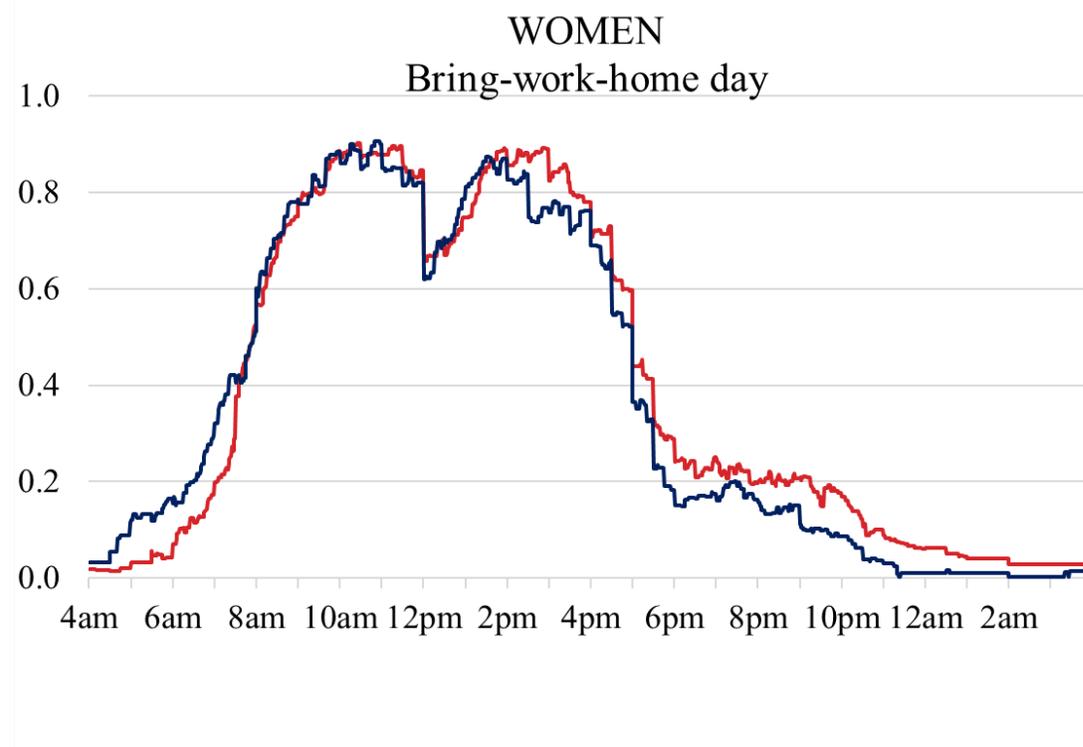
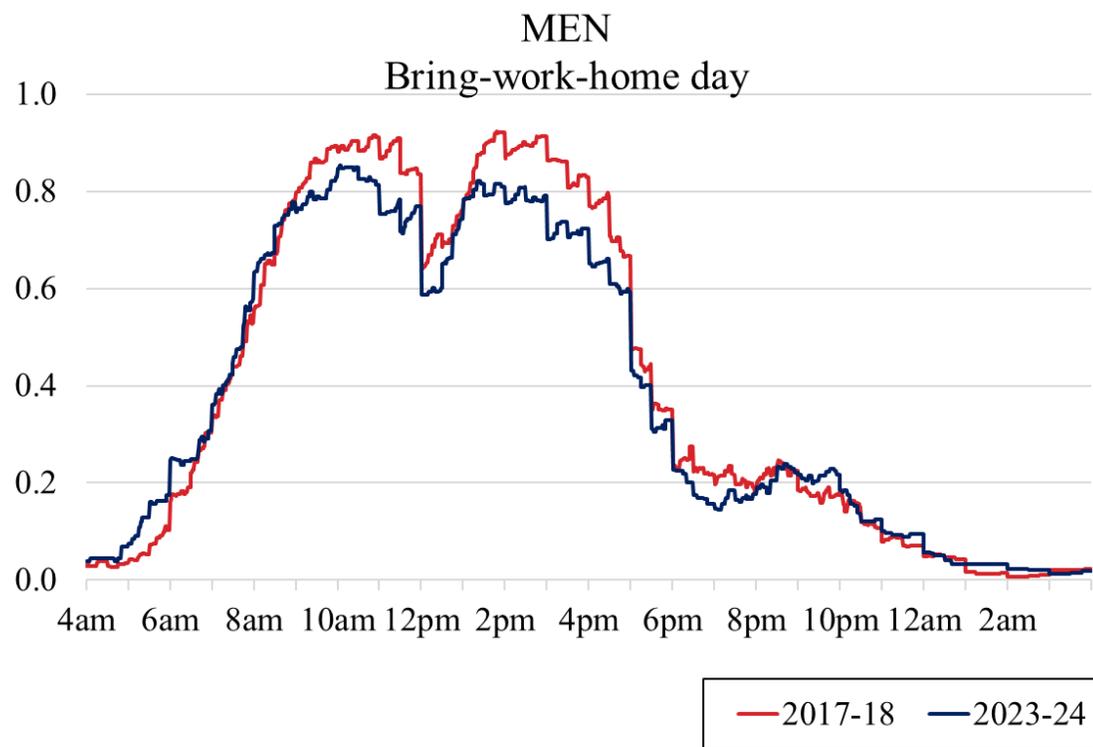
Share of workers engaged in paid work on WFH days



WFH days: Start later, end earlier, working more during core hours in 2023-24

Source: American Time Use Survey, author's calculations

Share of workers engaged in paid work on BWH days



Women: A decrease in evening work and an increase in early morning work

Source: American Time Use Survey, author's calculations

Main Econometric Model (DDD)

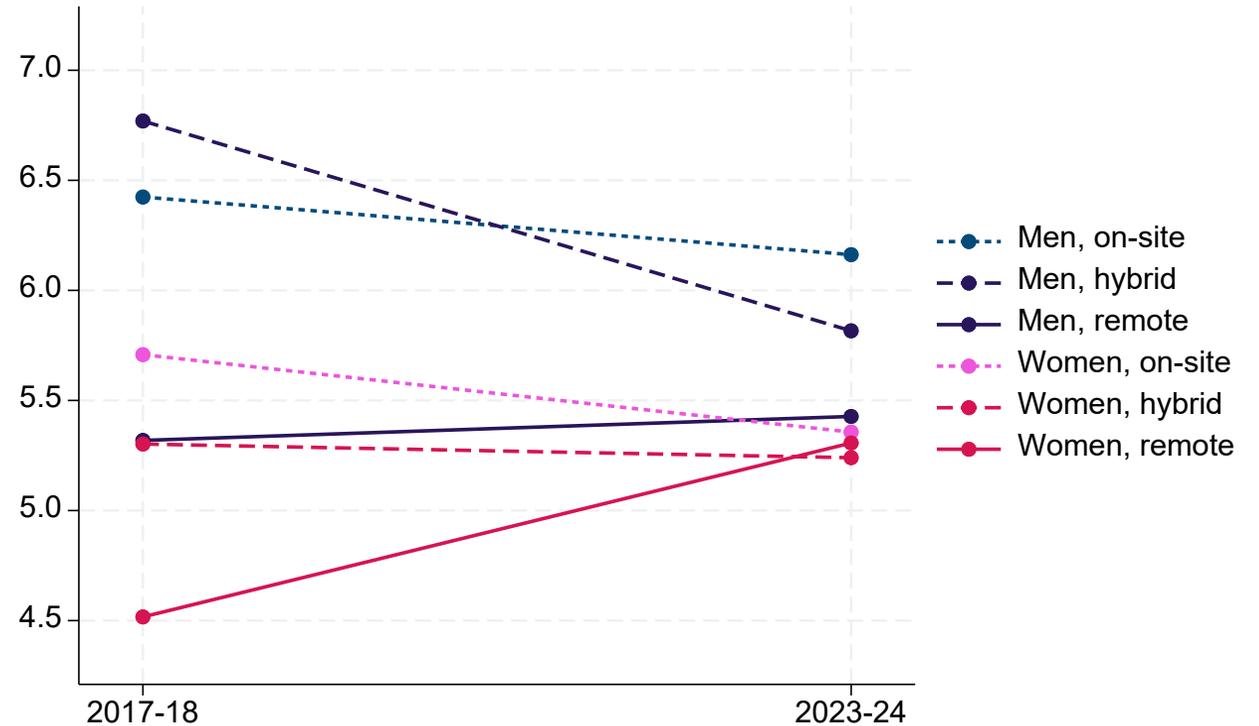
$$Y_i = \beta_0 + \beta_1 \text{Hybrid}_i + \beta_2 \text{Remote}_i + \beta_3 \text{Female}_i + \beta_4 \text{Year2023_24}_i + \beta_5 (\text{Hybrid}_i \times \text{Year2023_24}_i) + \beta_6 (\text{Remote}_i \times \text{Year2023_24}_i) + \beta_7 (\text{Female}_i \times \text{Year2023_24}_i) + \beta_8 (\text{Hybrid}_i \times \text{Female}_i) + \beta_9 (\text{Remote}_i \times \text{Female}_i) + \beta_{10} (\text{Hybrid}_i \times \text{Female}_i \times \text{Year2023_24}_i) + \beta_{11} (\text{Remote}_i \times \text{Female}_i \times \text{Year2023_24}_i) + \beta'_{12} X_i + \beta'_{13} (X_i \times \text{Female}_i) + \varepsilon_i$$

- Y_i : time spent on an activity, hours per average day
- X_i : quadratic in age and binary indicators for highest education degree (no high school degree, some college, bachelor's degree, advanced degree), race and ethnicity, spouse/unmarried partner, presence of household children (age 0–5, age 6–12, age 13–17), foreign born, month, Census division, metropolitan area residence, 11 occupations, and 14 industries

Hours per day: Work-related (Adjusted predictions)

Significant differences

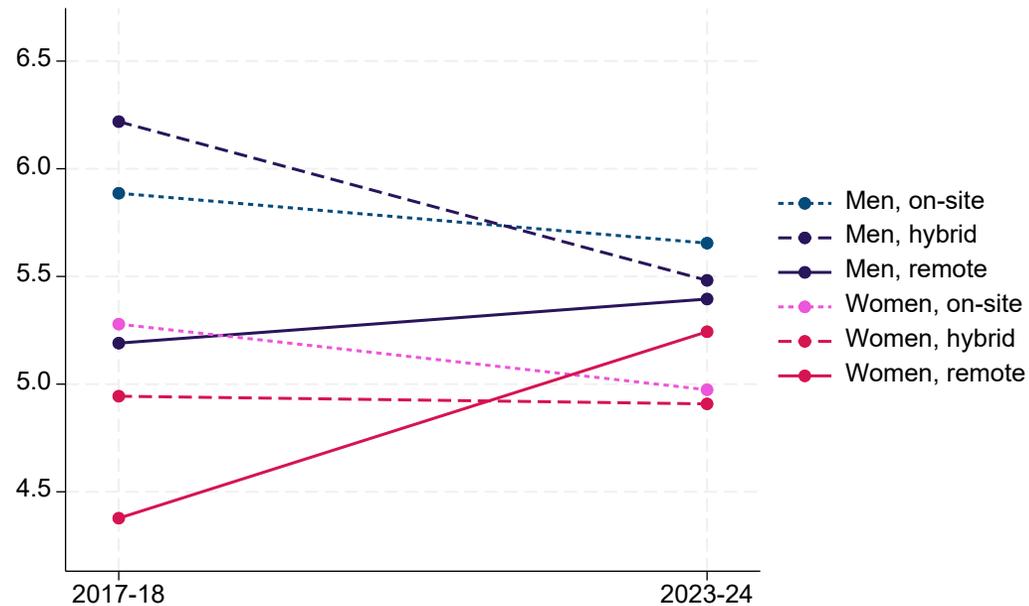
- Women's time at work < Men's
 - ▶ On-site (0.8h)
 - ▶ Hybrid: Gap shrinks over time (1.5h vs. 0.6h)
- Work arrangements
 - ▶ Men: Remote < On-site (0.7h)
 - ▶ 17–18, women: Remote < On-site (1.2h)
- Over time
 - ▶ Women: Remote ↑ (0.8h)
 - ▶ On-site ↓ (0.4h)
 - Time devoted to work equalized
 - ▶ Men: Hybrid ↓ (1.0h)



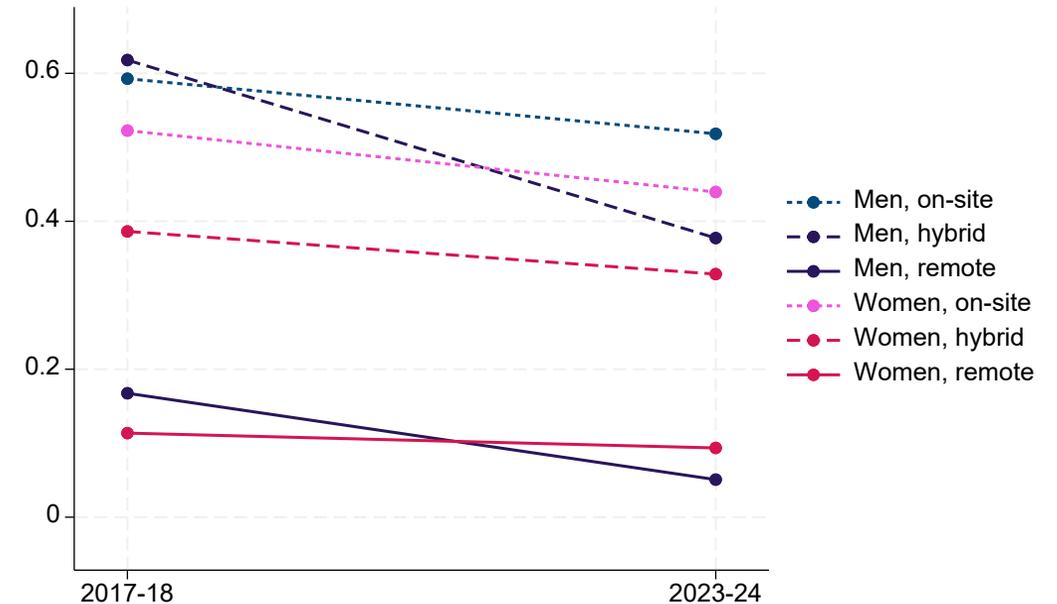
Source: American Time Use Survey, author's calculations

Hours per day: Paid work and commuting (Adjusted predictions)

Paid work



Commuting



Source: American Time Use Survey, author's calculations

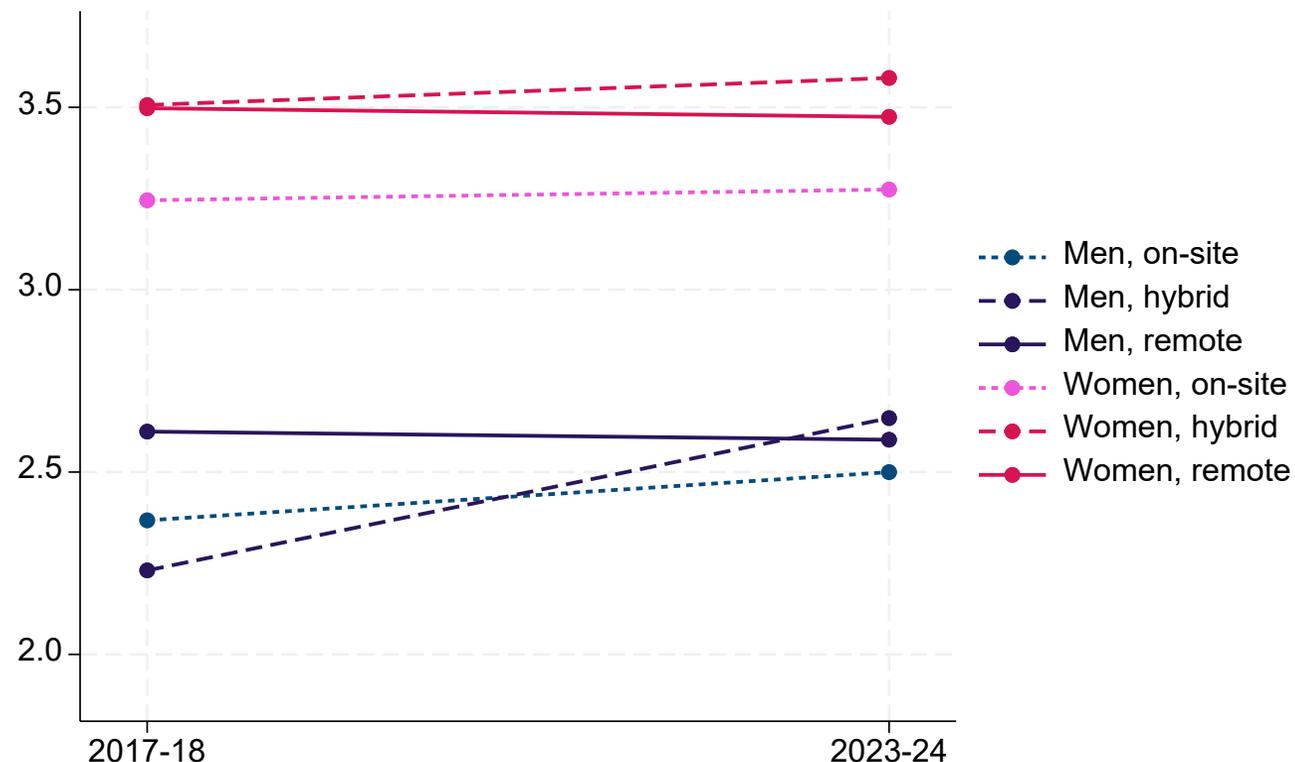
- Initially a large remote–on-site gap in paid work hours
- Paid work equalized across arrangements over time.

- Gap in time devoted to work in the earlier period is partially due to commute.
- Commuting time fell over time for hybrid workers.
 - especially for men

Hours per day: Household production and care (Adjusted predictions)

Significant differences

- Women's time < Men's
 - ▶ 0.8h in 2023–24

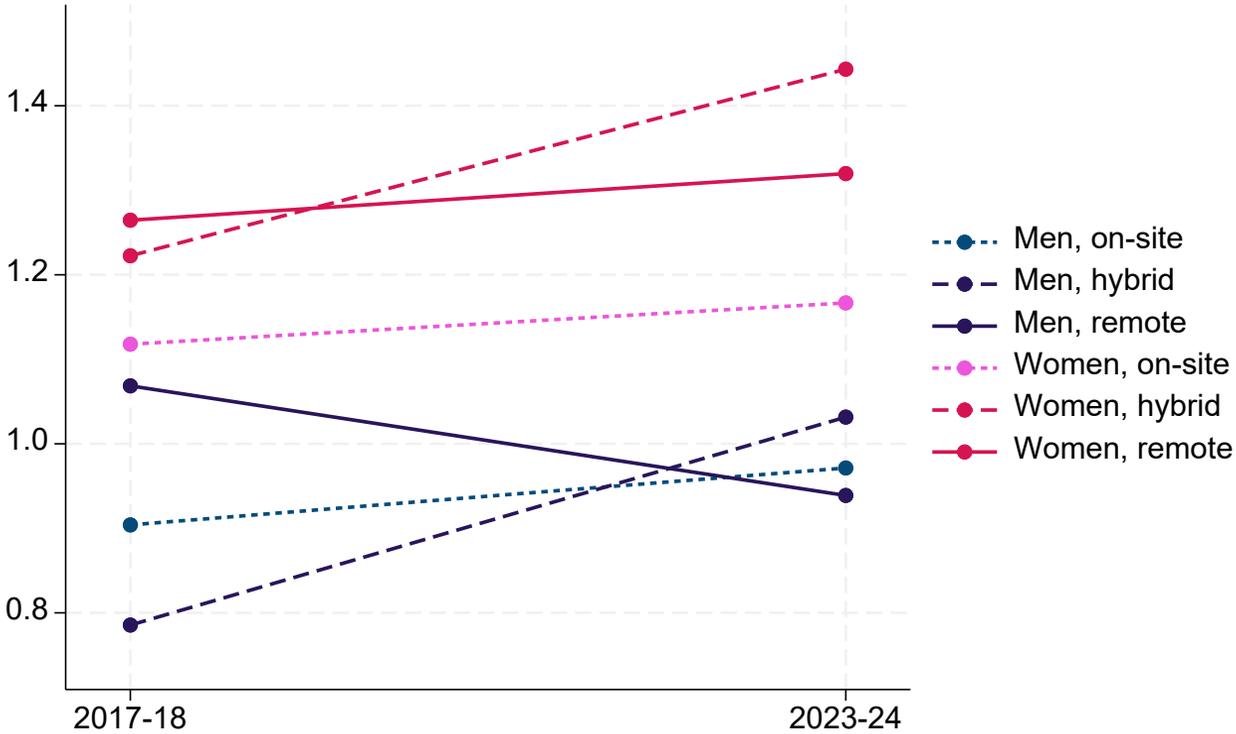


Source: American Time Use Survey, author's calculations

Hours per day: Household chores (Adjusted predictions)

Significant differences

■ Women: Hybrid > on-site (0.3h)



Source: American Time Use Survey, author's calculations

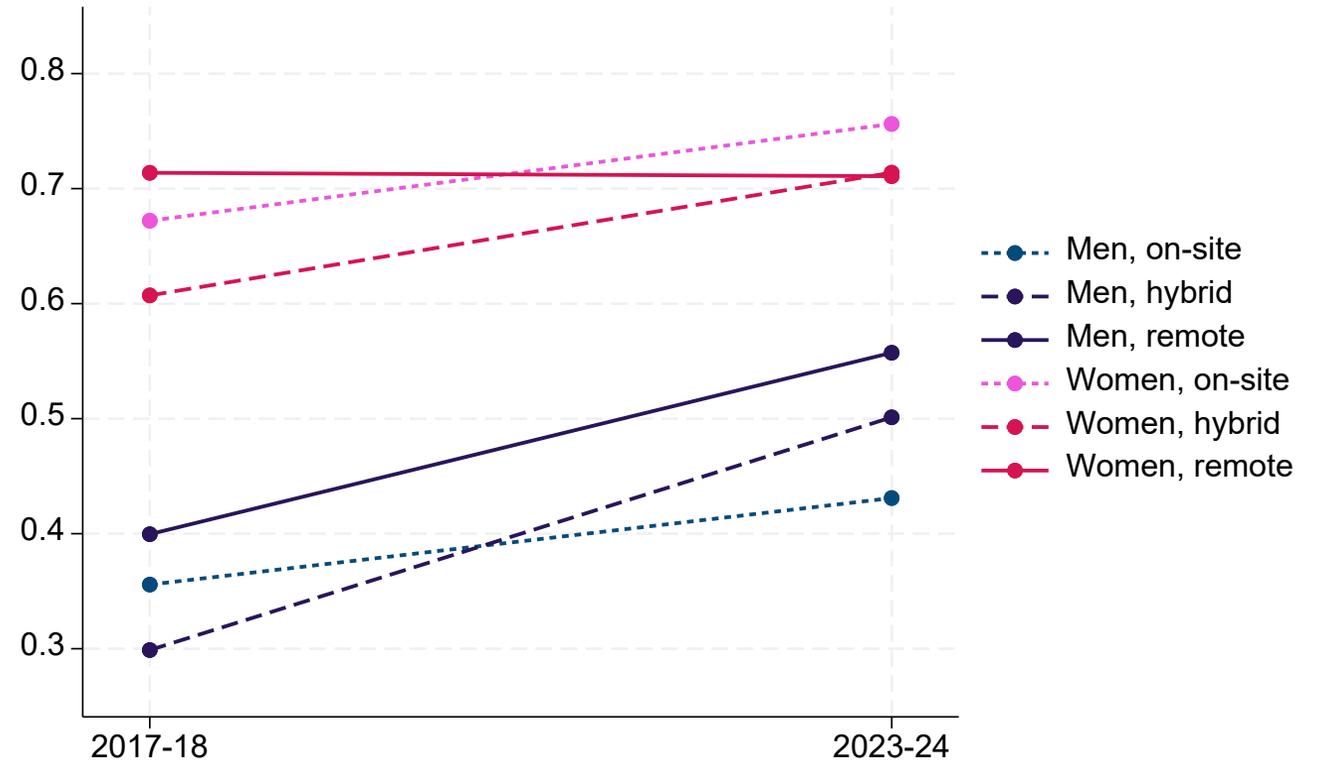
Household chores includes housework (cleaning, laundry), maintenance, gardening, and caring for pets but excludes food and drink preparation, shopping.



Hours per day: Food preparation (Adjusted predictions)

Significant differences

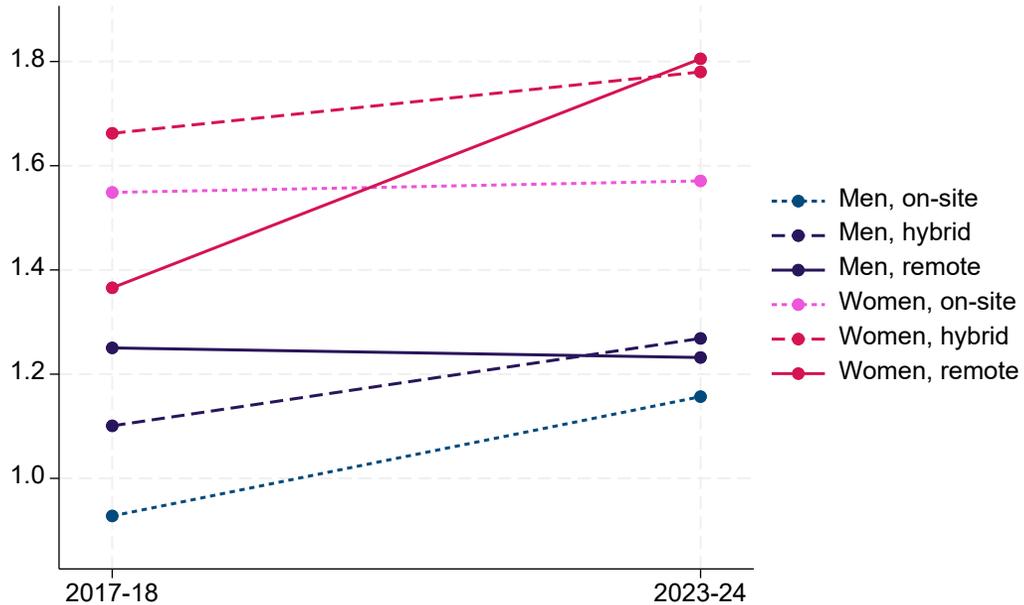
- 23–24, men: Remote > On-site (0.1h)
- Over time ↑, especially men working hybrid schedules
 - ▶ Exception women working remotely



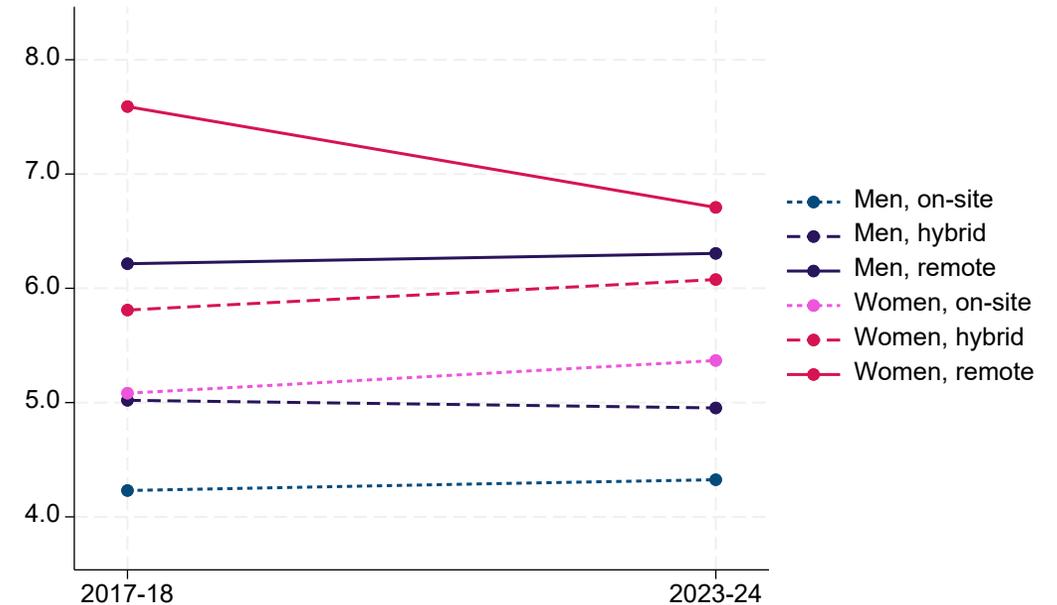
Source: American Time Use Survey, author's calculations

Hours per day: Parental childcare (Adjusted predictions)

Primary childcare (children < age 18)



Secondary childcare (children < age 13)



Source: American Time Use Survey, author's calculations

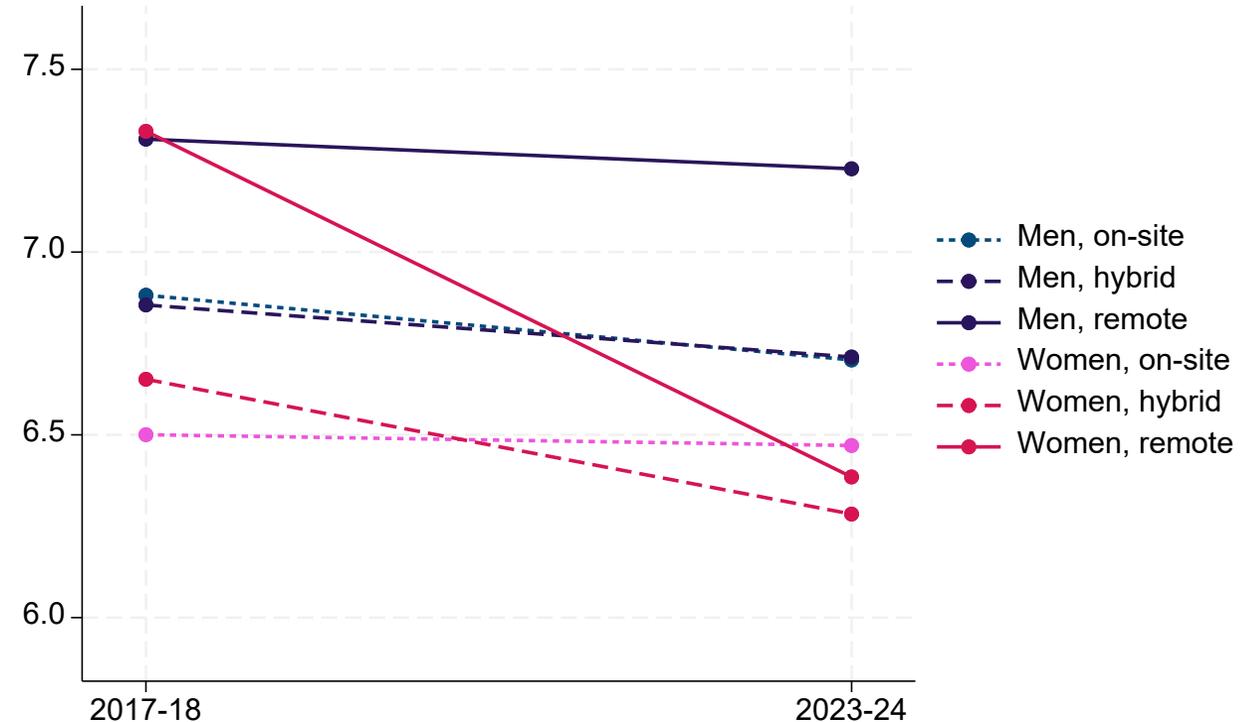
- 17-18, men: Remote > On-site (0.3h)
- Primary childcare increased among:
 - Men working on-site (0.2h)
 - ❖ Convergence across work arrangements
 - Women working remotely (0.4h)

- **Men: Remote > On-site (2h!)**
- Women: Remote > On-site
 - 2.5h in 17-18, 1.3h in 23-24

Hour per day: Leisure activities (Adjusted predictions)

Significant differences

- On-site: Women's time on leisure < Men's (0.2h)
- 23–24, remote: Women's time < Men's time (0.8h)
 - ▶ Gap is larger than among on-site workers
 - ▶ Over time, women: Remote ↓ (1h)
 - Leisure time equalized across work arrangements
- 17–18, men & women: Remote > On-site
- 23–24, men: Remote > On-site (0.5h)

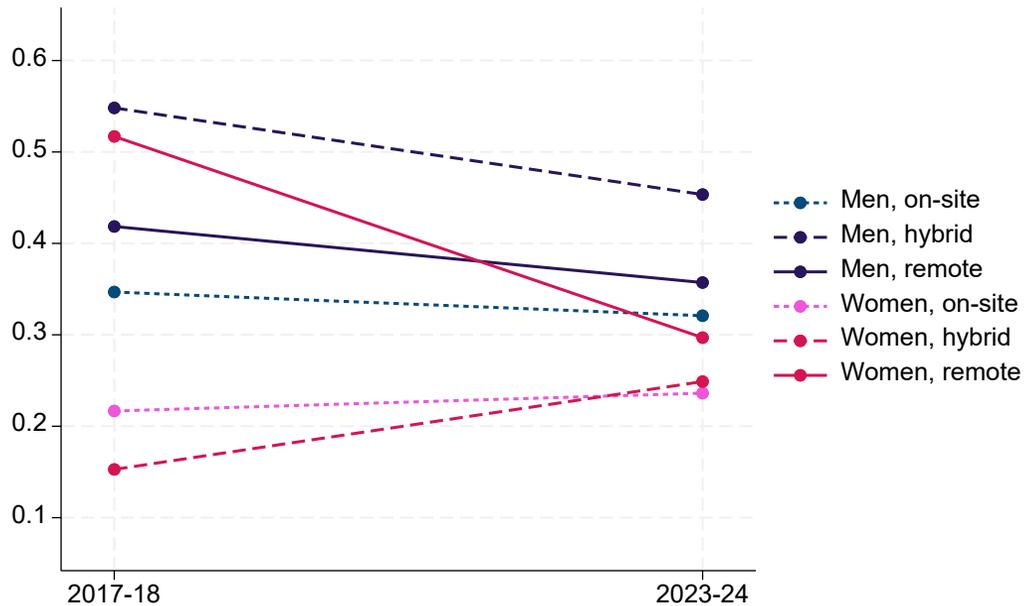


Source: American Time Use Survey, author's calculations

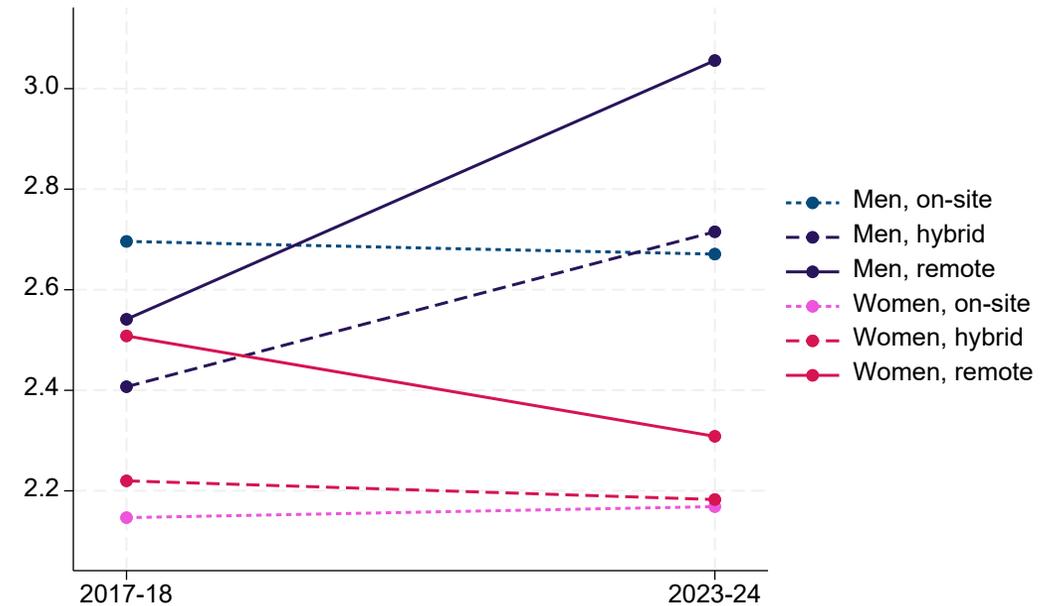
Hours per day: Exercise and screen time (Adjusted predictions)

Screen = TV and movies + playing games + using computers for leisure

Exercise



Screen time



Source: American Time Use Survey, author's calculations

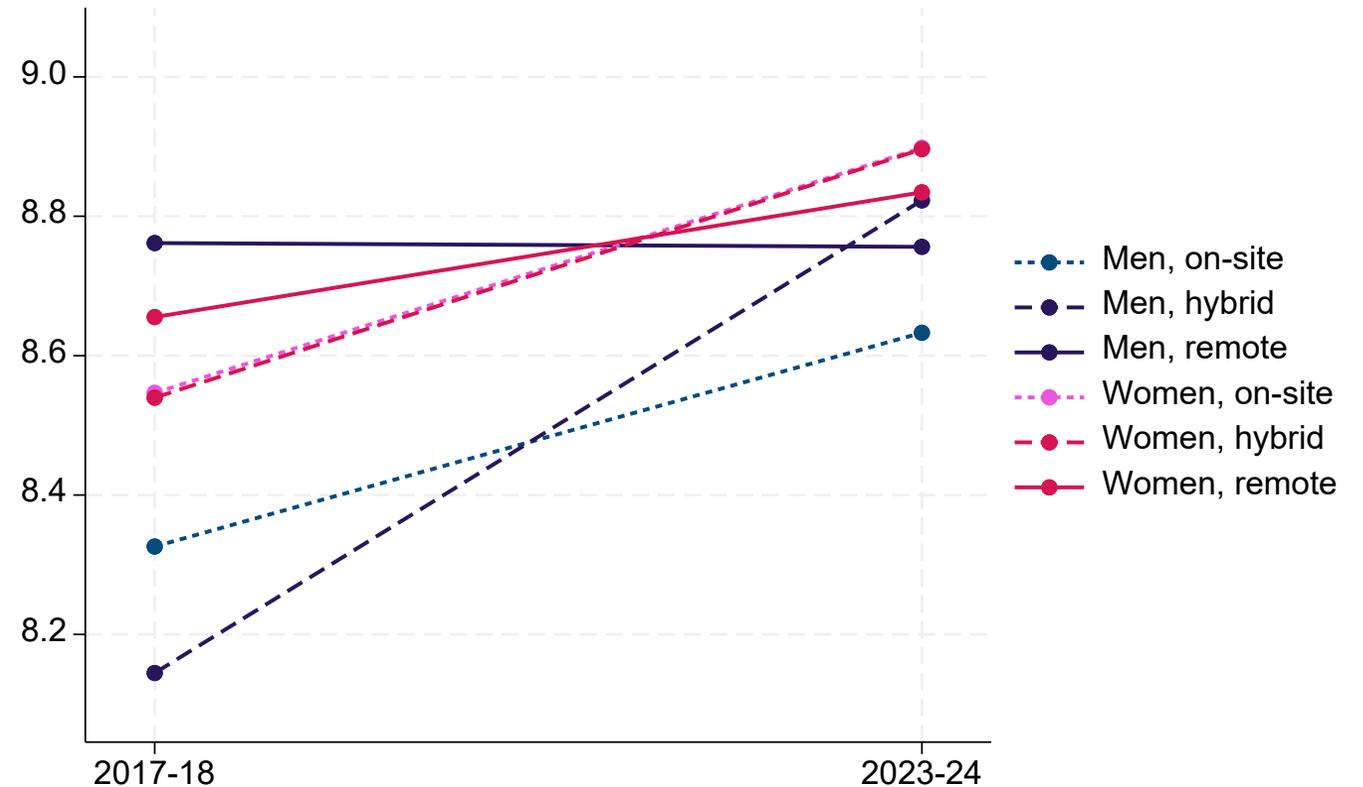
- 17-18, women: Remote > On-site & hybrid (0.3h)
- Over time, women: Remote ↓ (0.2h)
 - Exercise time equalized for women.
- Men: Hybrid > On-site (0.2h)

- 23-24, men: Remote > On-site & hybrid (0.4h)
- Over time, men: Remote ↑ (0.5h)

Hours per day: Sleep (Adjusted predictions)

Significant differences

- Women's time sleeping > Men's
 - ▶ On-site (0.3h)
 - ▶ 17–18, hybrid (0.6h)
- Work arrangements
 - ▶ 17–18, men: Remote > Hybrid (0.6h)
 - ▶ 23–24, men: Hybrid & Remote > On-site (0.2h)
- Over time
 - ▶ On-site ↑ (0.4h)
 - ▶ Hybrid ↑ (0.6h)



Source: American Time Use Survey, author's calculations

Summary: Average day results (Part 1)

- Paid work hours equalized across work arrangements.
 - ▶ Pre-COVID, remote workers worked less.
- No change over time in household production and care or difference across work arrangement but some differences in select subcategories:
 - ▶ Women working hybrid spent more time on household chores than those on-site.
 - ▶ Food preparation time increased for most, especially for men working hybrid.
 - ▶ Increases in primary childcare
 - Primary childcare equalized across work location arrangements for men.
 - Women working remotely spent about 0.4 hours more on care in 2023–24 than 2017–18.
 - ▶ Parents working remotely spent substantially more time on secondary care than their on-site counterparts.



Summary: Average day results (Part 2)

- Leisure time equalized across work location arrangements for women.
 - ▶ Pre-COVID, women working remotely spent more time on leisure.
- Men working remotely enjoyed more leisure in both periods.
- Sleep time increased since 2017–18 for on-site and hybrid workers.

Contact Information

Sabrina Wulff Pabilonia

U.S. Bureau of Labor Statistics

www.bls.gov/dpr/authors/pabilonia.htm

202-691-5614

Pabilonia.Sabrina@bls.gov



BONUS SLIDES



Workday location by work location arrangement

2017–18

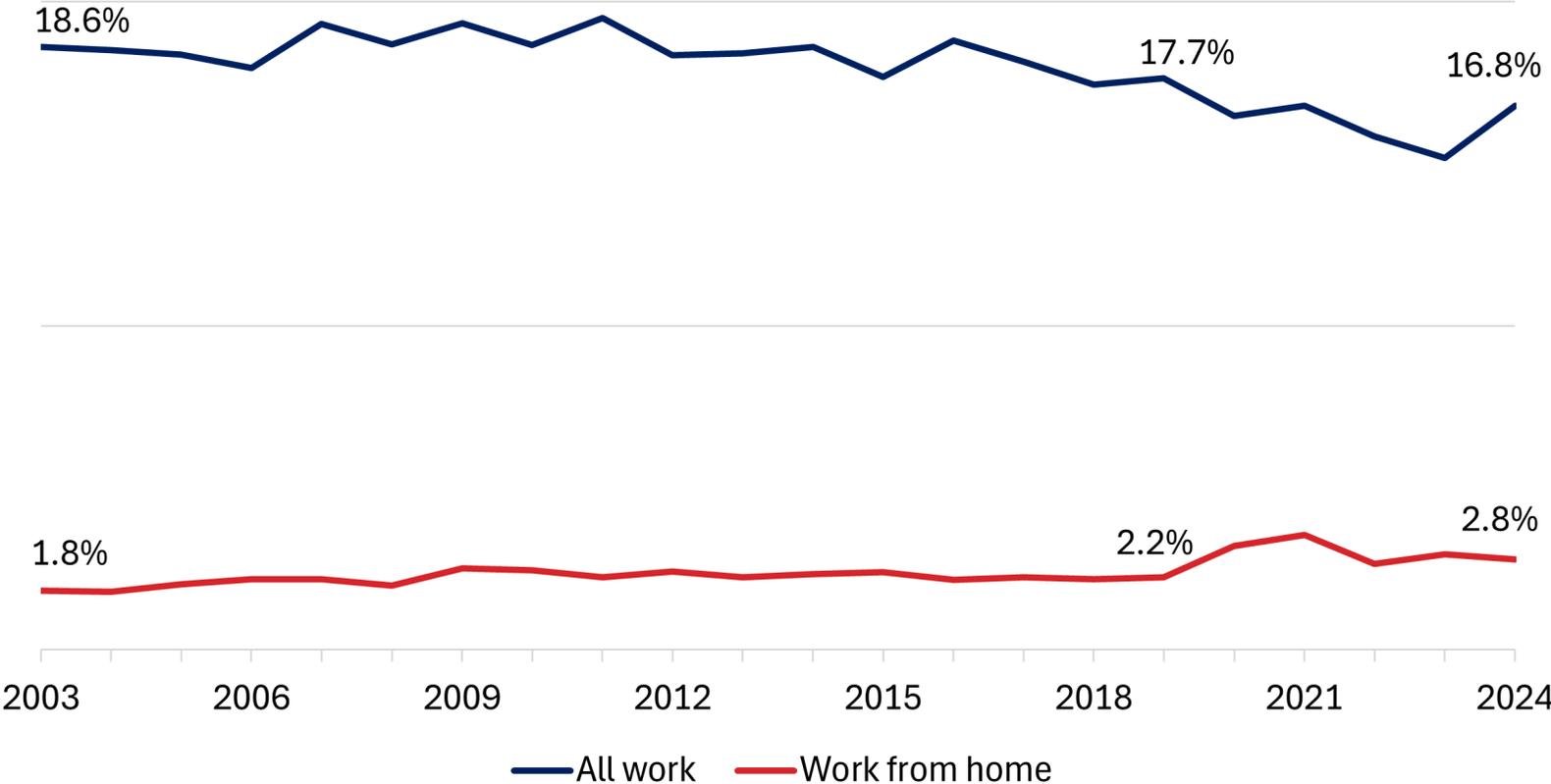
Workday type	On-site worker	Hybrid worker	Remote worker
% WFH day	1.7	27.0	86.7
% BWH day	11.3	25.5	8.9
% On-site day	87.0	47.5	4.4
N	3,491	211	105

2023–24

Workday type	On-site worker	Hybrid worker	Remote worker
% WFH day	7.6	37.9	81.9
% BWH day	9.9	19.2	3.6
% On-site day	82.5	42.8	14.5
N	2,110	329	372



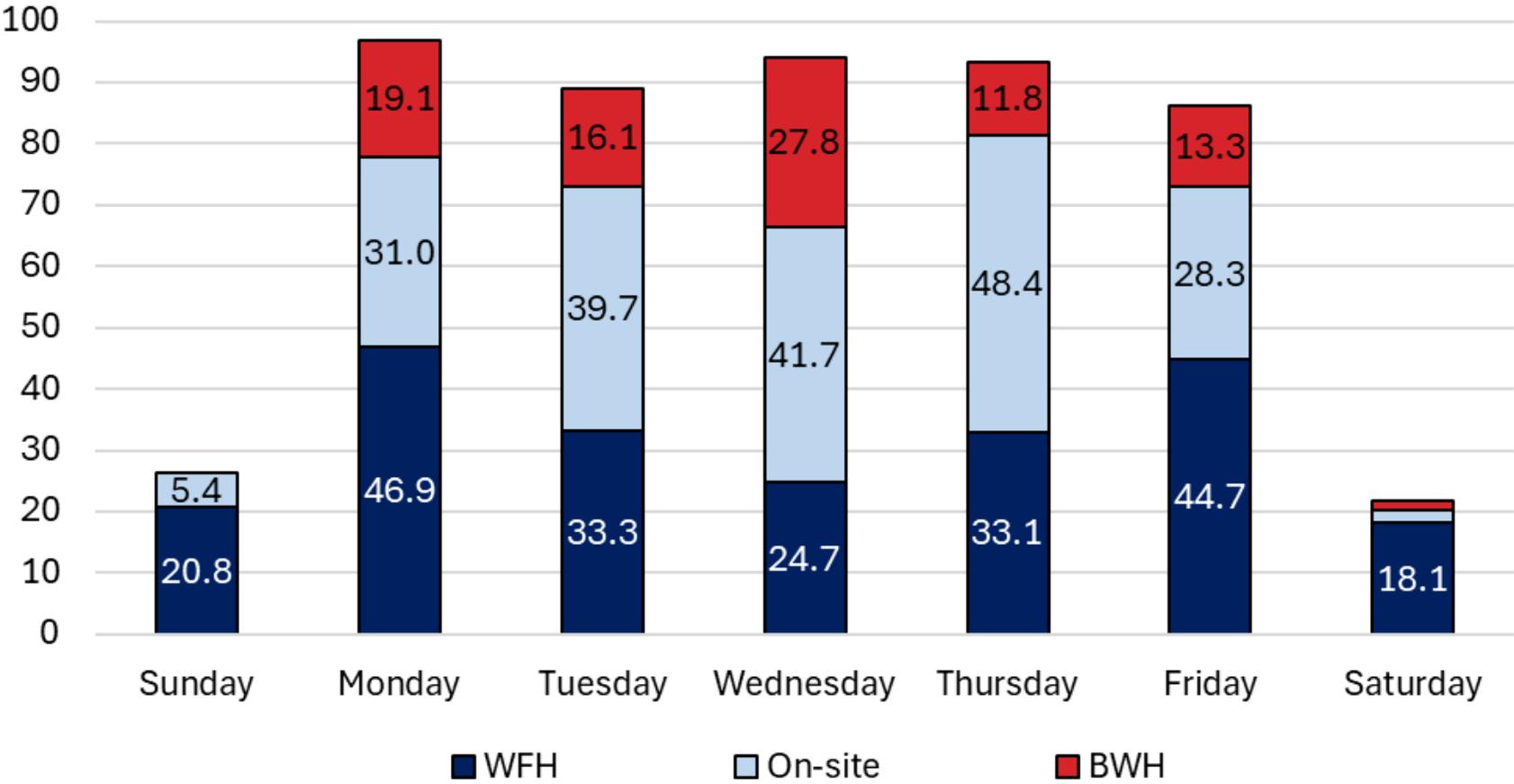
Percentage of total work and work from home done on weekend days and weekdays between 6 p.m. to 6 a.m.



Source: 2003–2024 American Time Use Survey, author’s calculations



Percentage of hybrid workers working on their diary day by work location in 2023–24 (no 4-hour work restriction)



Source: 2023–2024 American Time Use Survey, author’s calculations



Results for workdays ≥ 4 h paid work: Part 1

28

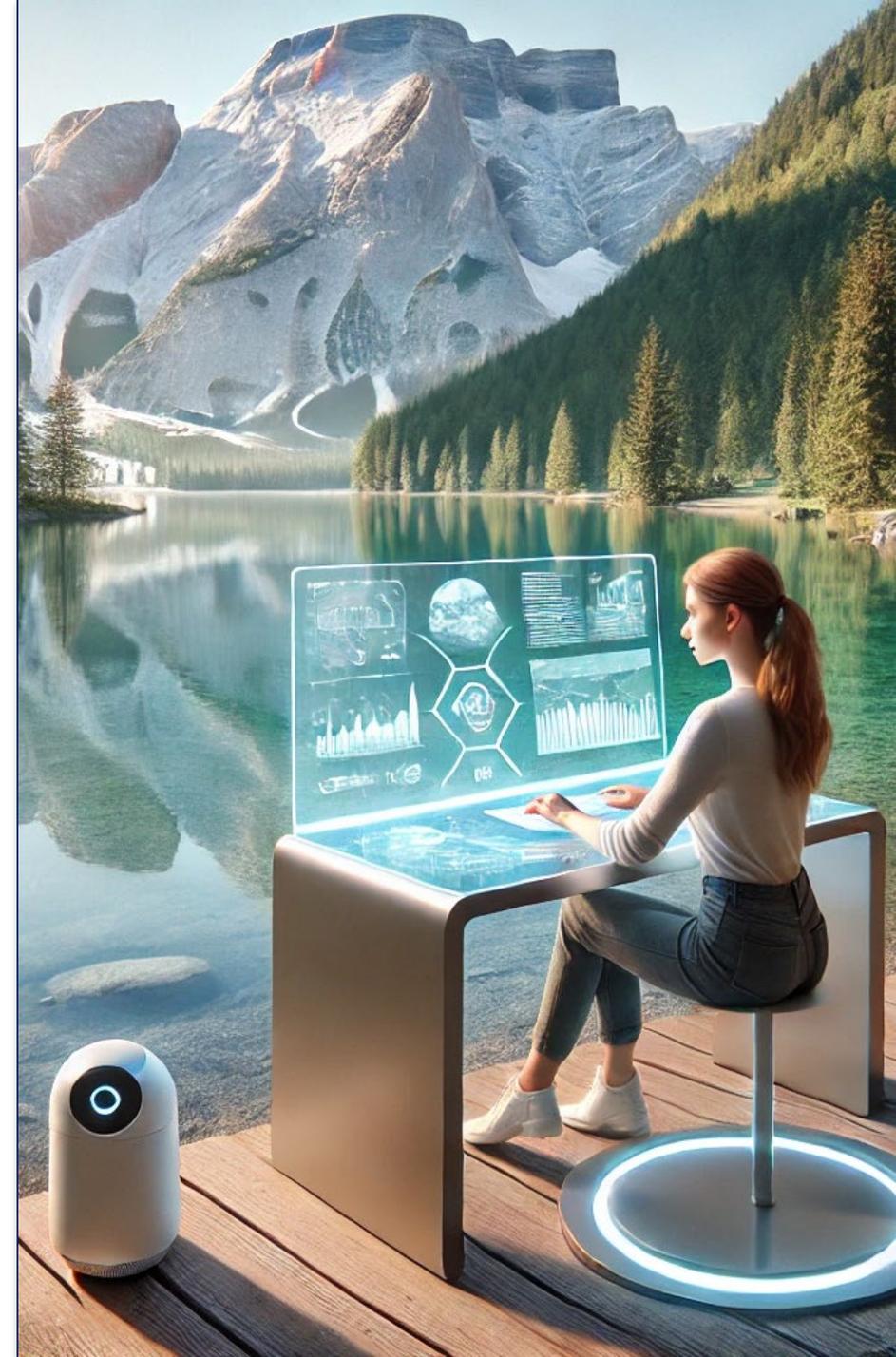
- WFH days vs on-site days:
 - ▶ Less paid work on WFH days (0.3h)
 - ▶ In 2017–18, time saved by not commuting is reallocated to household production and leisure for men and to sleep for women.
 - ▶ In 2023–24, time saved by not commuting is reallocated to all major time-use categories for both men and women.



Results for workdays ≥ 4 h paid work: Part 2

29

- Hybrid workers on WFH days in 2023–24:
 - ▶ Men & women: Time saved by not commuting is reallocated primarily to household production and care.
- Bring-work-home days are associated with longer paid hours, a greater number of work episodes, and a longer work span compared with on-site days.
- Bring-work-home days are also associated with less sleep for men—sleeping only 7.3h on those workdays.



Implications of the remote work revolution (Part 1)

■ Worker health

- ▶ Positive: more sleep, food preparation, exercise

■ Child development

- ▶ Children are spending more time with parents working remotely, and more parents are working remotely.

■ Inequality

- ▶ Because remote workers are more likely to be college-educated than on-site workers, we might expect greater disparities in human capital in the future.

Implications of the remote work revolution (Part 2)

■ Gender wage gap

- ▶ Pre-pandemic, women working remotely worked fewer hours, but post-pandemic they worked hours comparable to their on-site counterparts.
- ▶ Longer hours => Higher wages => Decrease in gender wage gap