

SWAA June 2023 Updates

Jose Maria Barrero, Nicholas Bloom, Shelby Buckman, and Steven J. Davis

5 June 2023



Latest survey wave included: May 2023

To sign up for regular results updates, please sign up [here](#).

- **Source of all data (unless noted):** Survey of Working Arrangements and Attitudes (SWAA), see www.wfhresearch.com

- **When referring to these results please cite:**

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

www.wfhresearch.com

The Survey of Working Arrangements and Attitudes



- Monthly online survey since May 2020, >150,000 observations to date.
- We design the survey instrument.
- Target population: U.S. residents, 20-64, who earned \geq \$10K in 2019 (\geq \$20K in early survey waves). From January to March 2022, we transitioned to earned \geq \$10K in the prior year.
- The SWAA is fielded by market research firms that rely on wholesale aggregators (e.g., [Lucid](#)) for lists of potential survey participants.
- After dropping “speeders” (~16% of sample), we re-weight to match 2010-2019 CPS worker shares in age-sex-education-earnings cells. Dropping those who fail attention checks (roughly another 12%) sharpens some results.
- Median response time: 7 to 12 minutes, after dropping speeders
- Results, micro data, survey instruments, and more are freely available at www.WFHresearch.com.

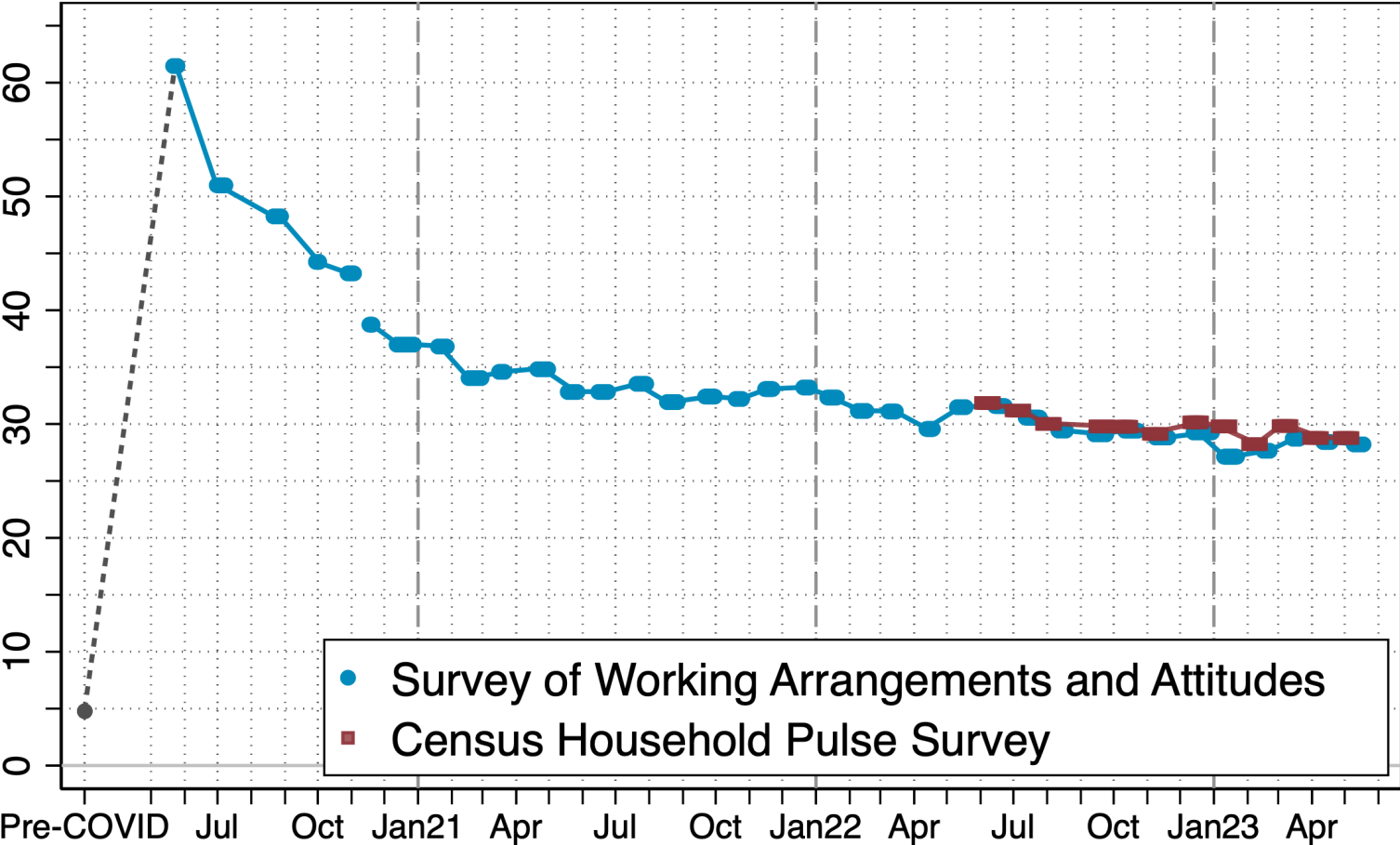
Representativeness

- By design, we focus on persons who exhibit some attachment to the workforce, as evidenced by prior earnings.
- No respondents are recruited based on an interest in our topics.
- Since respondents take the survey using a computer, smartphone, iPad or like device, we miss people who never use such devices.
- Before re-weighting, the SWAA under samples the less educated, particularly those who did not finish high school.
- Even after re-weighting, we may over sample those who are more tech and internet savvy, especially among the least educated.

Days Worked from Home Are Near 28% In the First Half of 2023



Percentage of paid full days worked from home



*Pre-COVID estimate taken from the 2017-2018 American Time Use Survey
 *The break in the series in November 2020 reflects a change in the survey question.

- Source:** Responses to the questions:
- **Currently (this week) what is your work status?** (SWAA)
 - **For each day last week, did you work a full day (6 or more hours), and if so where?** (SWAA)
 - **In the last 7 days, have you...teleworked or worked from home?** (HHP)

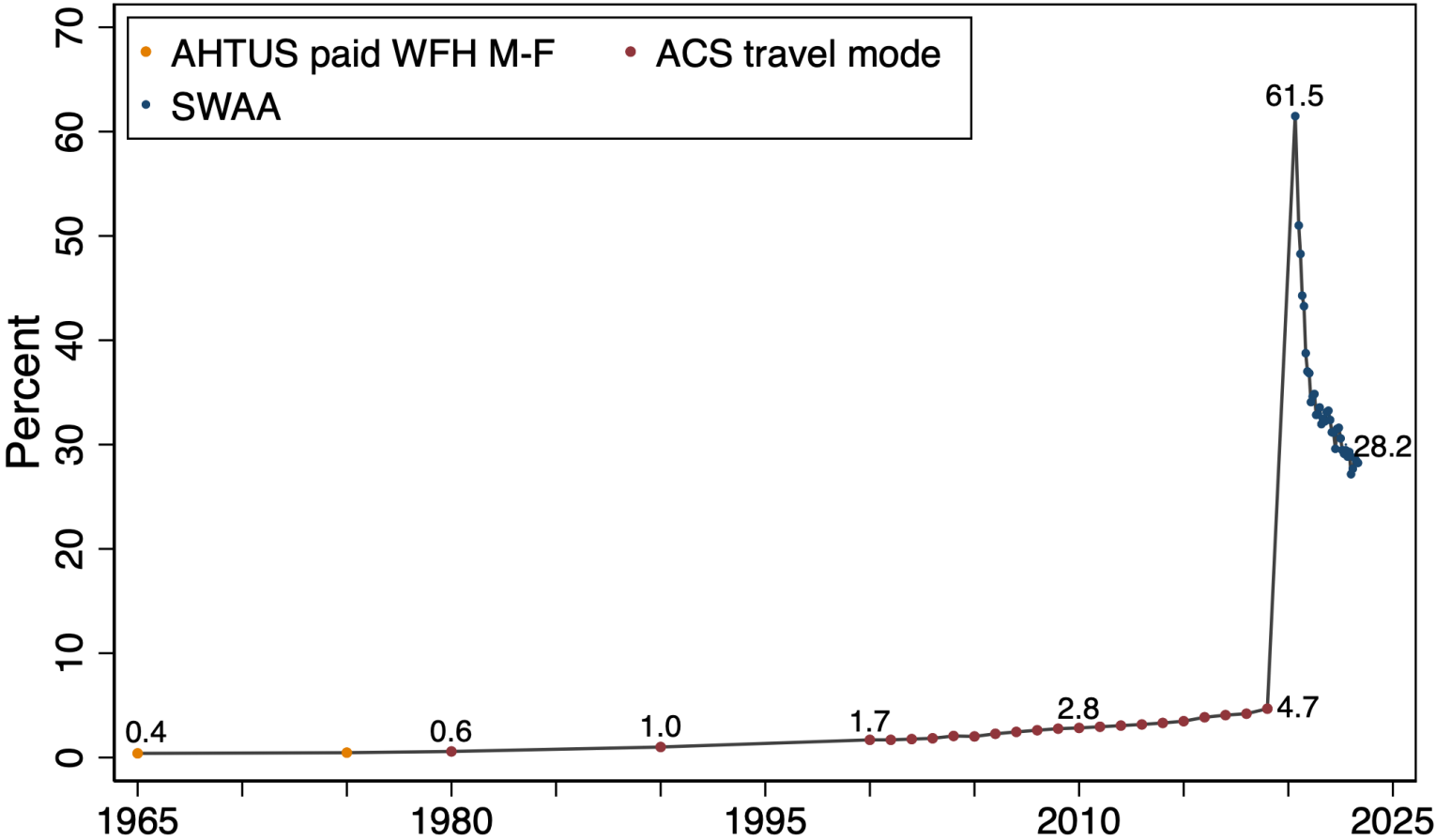
Notes: For each wave, we compute the percent of paid full days worked from home in the SWAA and Household Pulse Survey (HHP) and plot it on the vertical axis. The horizontal-axis location shows when the survey was in the field. The pre-COVID figure is from the 2017-2018 American Time Use Survey. SWAA: Before November 2020, we asked the first question above. Since November 2021, we have asked the second question. From November 2020 to October 2021, we back-cast responses to the current question using a regression model based on current-question responses and another question (not shown). We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells. HHP: We focus on individuals aged 20 to 64 with household incomes above \$25,000 per year. We assign 30% of days WFH if the respondent did so for “for 1-2 days;” 70% if they did so “for 3-4 days;” 100% if “5 or more days;” and 0 for “No.”

N = 137,377 (SWAA) N = 397,298 (HHP)

The Pandemic Permanently Increased WFH, Equivalent to Almost 40 Years of Pre-Pandemic Growth



Historical WFH share



1965-1975 uses data from the American Historical Time Use Survey.
 1980-2019 uses data from American Community Survey.
 May 2020 - 2023 uses data from the Survey of Working Arrangements and Attitudes.

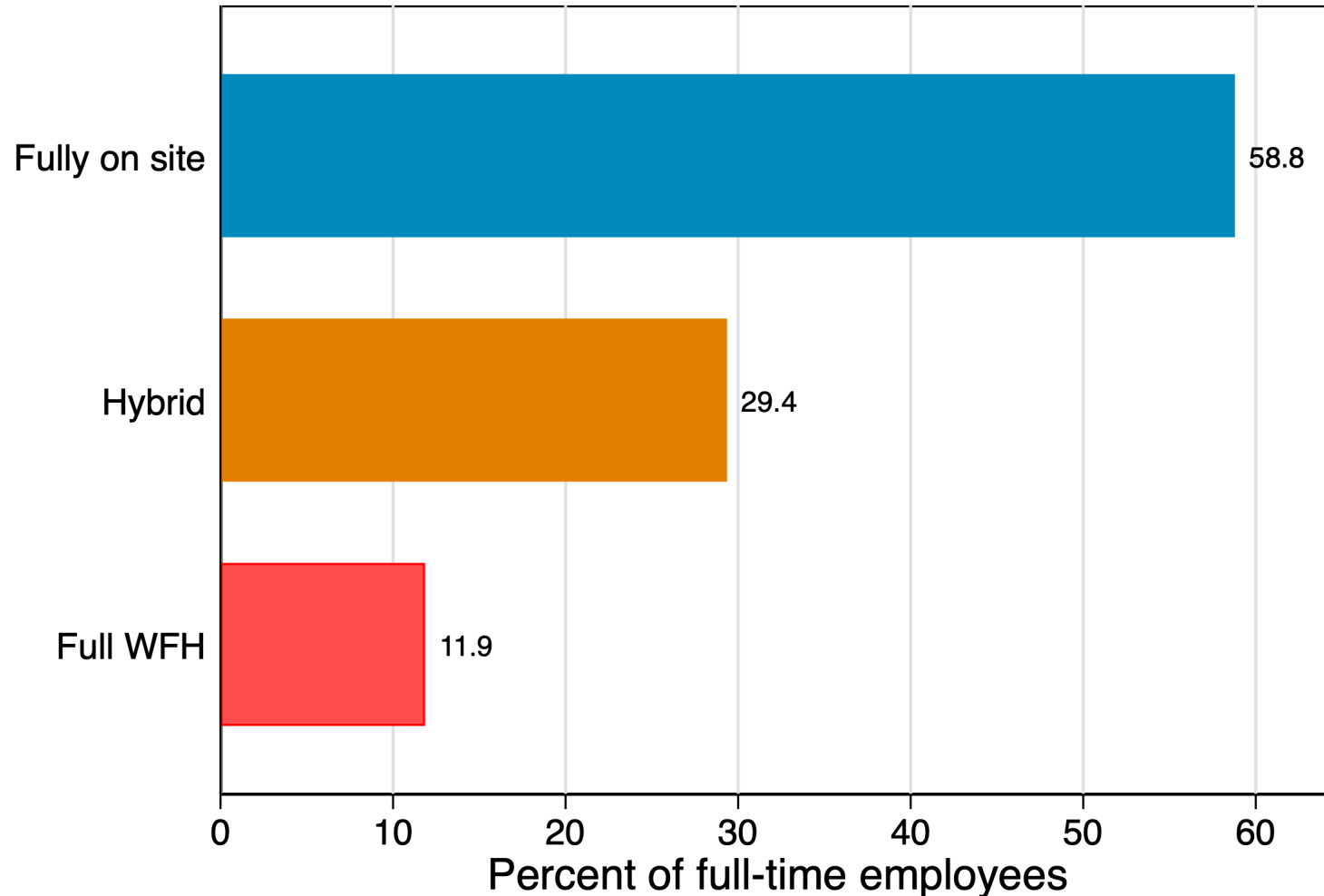
- Source:** Responses to the questions:
- *In their time diary the respondent listed the activity "Paid work at home" for **6 or more hours.** (AHTUS)*
 - *How did this person **usually** get to work last week? (ACS)*
 - *For each day last week, did you work a full day (6 or more hours), and, if so, where? (SWAA)*

Notes: For each dataset, we compute the percent of working individuals who worked full days at home during the survey's reference period. For the AHTUS and ACS, if an individual reports usually working from home, we mark them as working from home 100% of the time. In SWAA we compute the percent of full paid days at home to account for a hybrid work schedule. Then we plot each percentage on the vertical axis. We re-weight the sample of US residents aged 20 to 64 earning \$20,000 or more in 2019 dollars to overall population shares.

By May '23: 12% of Full-Time Employees Were Fully Remote, 59% Were Full-Time on Site, and 29% Were in a Hybrid Arrangement



Working Arrangements



Source: Responses to the questions:

- For each day last week, did you work a full day (6 or more hours), and if so where?

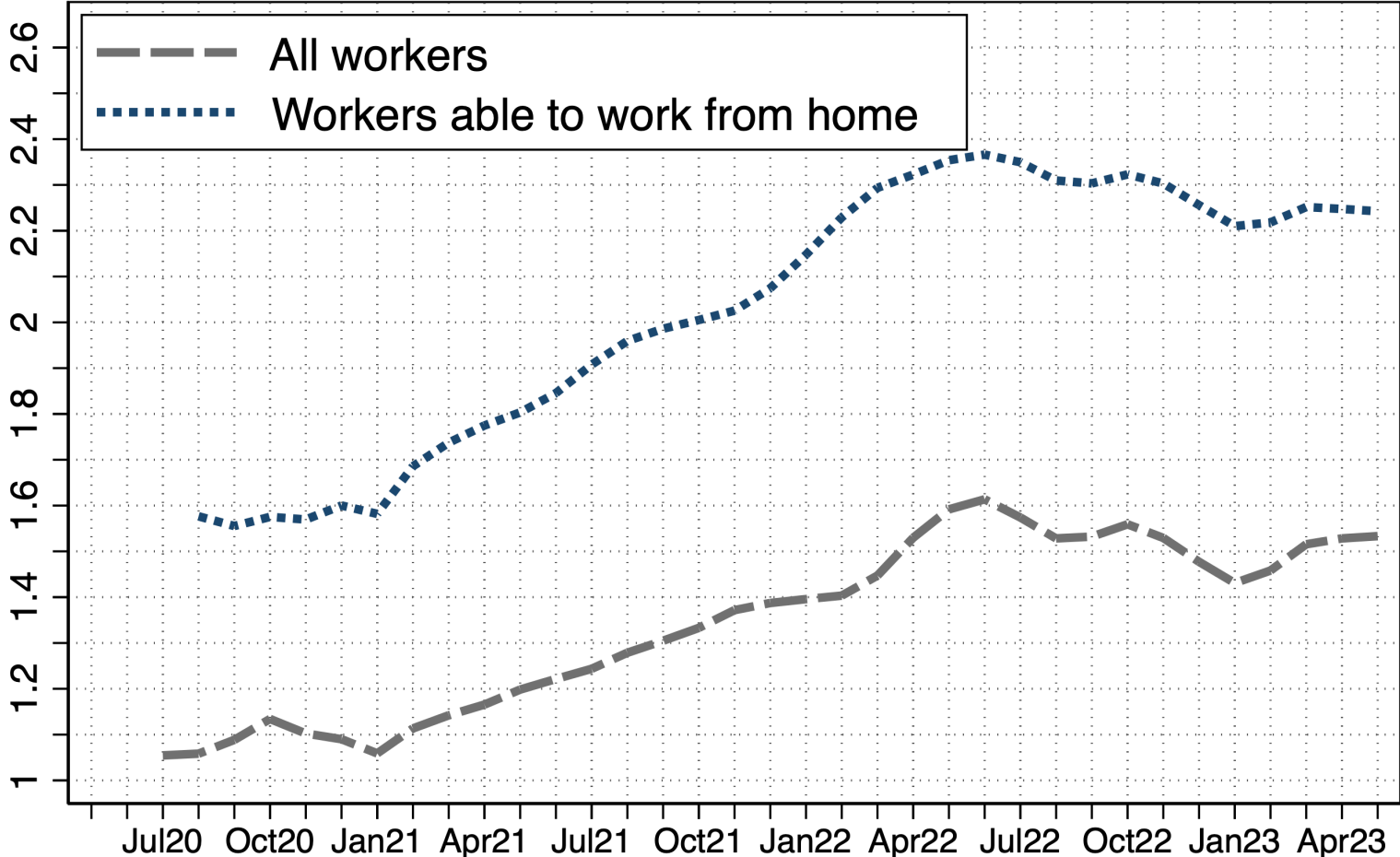
Notes: We compute the percent of full-time (i.e. work 5+ days/week) wage and salary employees who either i) worked all their days on business premises; ii) worked some days on business premises and some days at home; or iii) worked all all days at home during the survey's reference week. Then we show the percentage for each group. The sample covers the February to May 2023 waves of the SWAA. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

N = 13,175

Employer Plans for WFH Trend Near 2.2 Days per Week for Persons Able to Work From Home



Average Days per Week Working From Home
After the Pandemic Ends: Employer plans



Responses to the question:

- *As the pandemic ends, how often is your employer planning for you to work full days at home?*

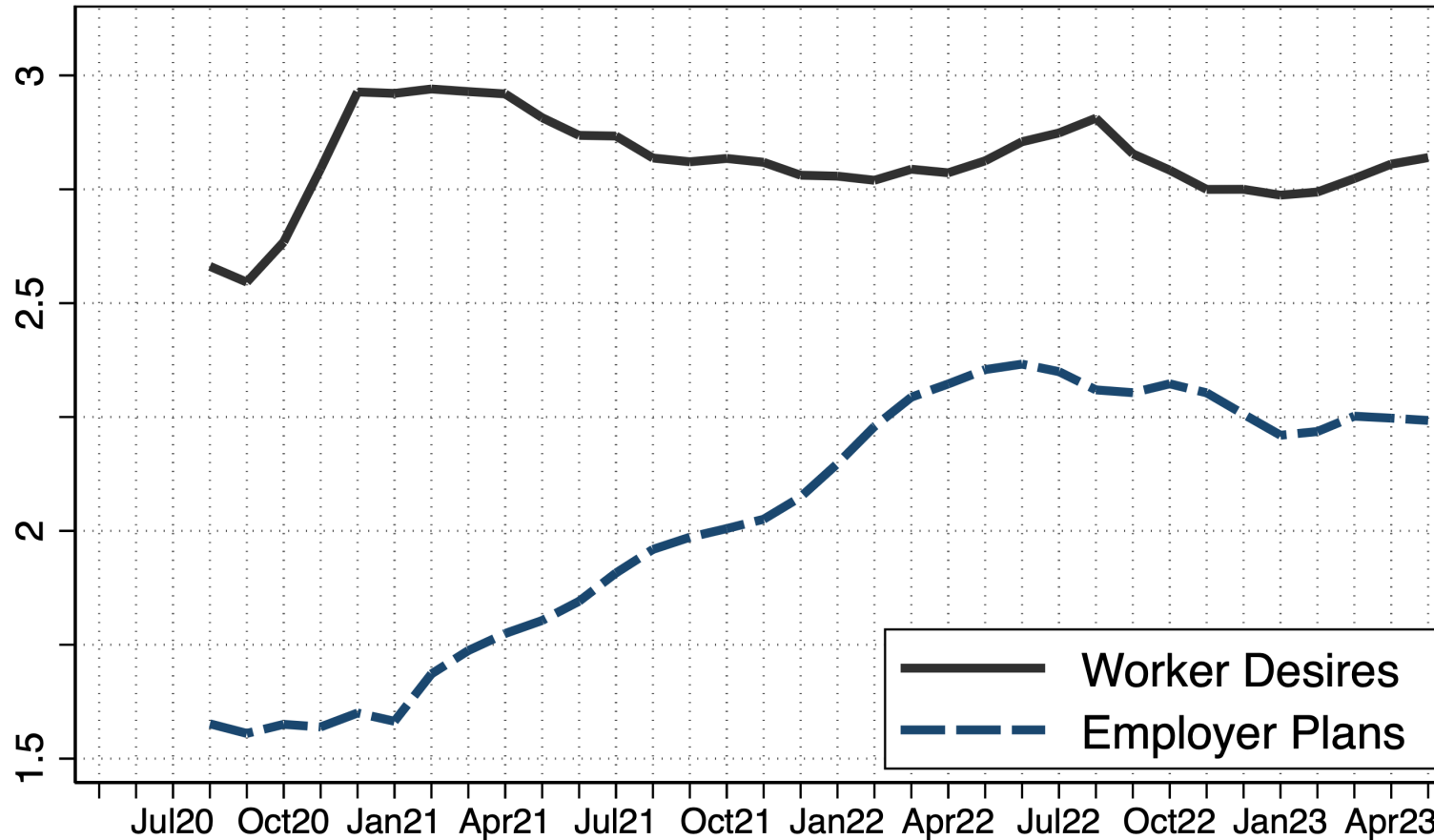
Sample: Data are from all SWAA waves, covering July 2020 to May 2023. The sample includes all respondents who reported their employer’s plans for WFH as the pandemic ends (“All workers” series), but the series labeled “Workers able to work from home” restricts attention to workers who have work-from-home experience during the pandemic. In both cases, we exclude respondents who report having no employer. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match Current Population Survey on age, sex, education, and earnings.

N = 152,706 (all respondents) and 109,296 (able to work from home)

The Gap Between How Much Employees Want to Work from Home and Employer Plans Is Stable at About 0.5 Days



Average Days per Week Working From Home After the Pandemic Ends: Workers Able to WFH



Sample: Workers able to work from home

Responses to the questions:

- **As the pandemic ends, how often would you like to have full paid days at home?**
- **As the pandemic ends, how often is your employer planning for you to work full days at home?**

Sample: Data are from all SWAA waves, covering August 2020 to May 2023. The sample includes all respondents who responded to the relevant survey and have work-from-home experience during the pandemic. For the employer plans series, we exclude respondents who report having no employer.

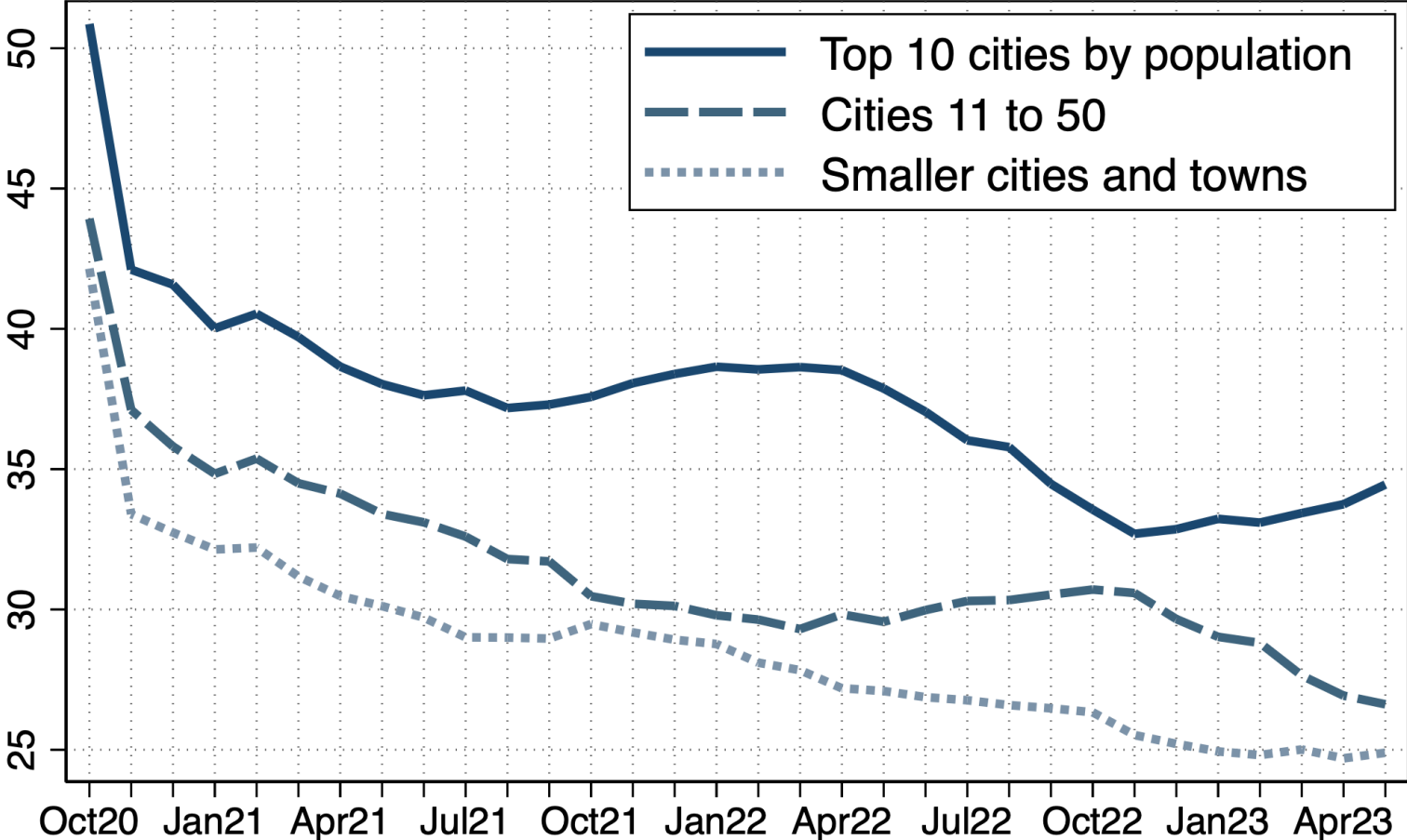
N = 109,296 (employer plans, able to work from home)

N = 117,548 (worker desires, able to work from home)

Working From Home is More Common in Major Cities than in Smaller Cities and Towns



Percent of paid full days worked from home



Source: Responses to the questions:
 - **Currently (this week) what is your work status?**
 - **For each day last week, did you work a full day (6 or more hours), and if so where?**

Notes: The chart plots 6-month moving averages where available and 3-month moving averages prior to November 2020. For each wave, we compute the percent of paid full days worked from home and plot it on the vertical axis, after sorting respondents into cities (i.e., Combined Statistical Areas) by the location of their current job's business premises. Before November 2020, we asked the first question above. Since November 2021, we have asked the second question. From November 2020 to October 2021, we back-cast responses to the current question using a regression model that relates the current-question responses to the responses to another question (not shown). We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

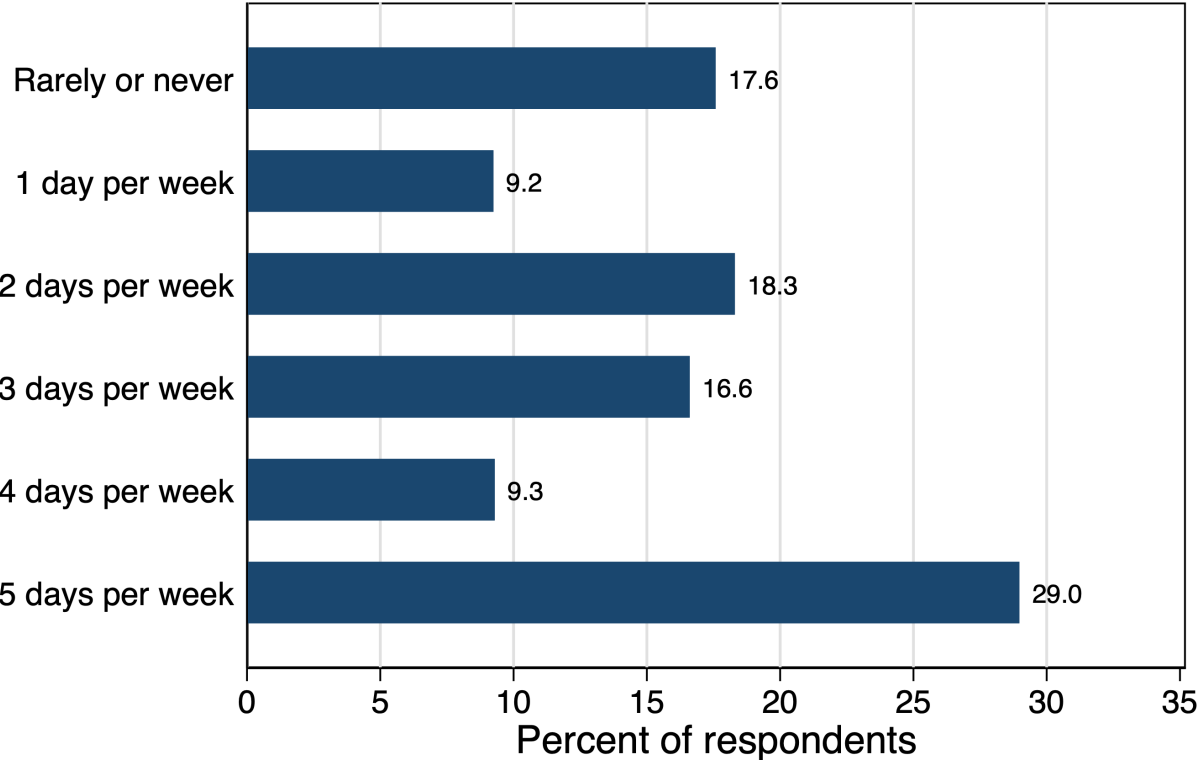
*We define cities using Combined Statistical Areas and use the location of the respondent's current job.

N = 125,769

Employers Offer Fewer Fully Remote Jobs and More Fully Onsite Jobs Than Employees Want

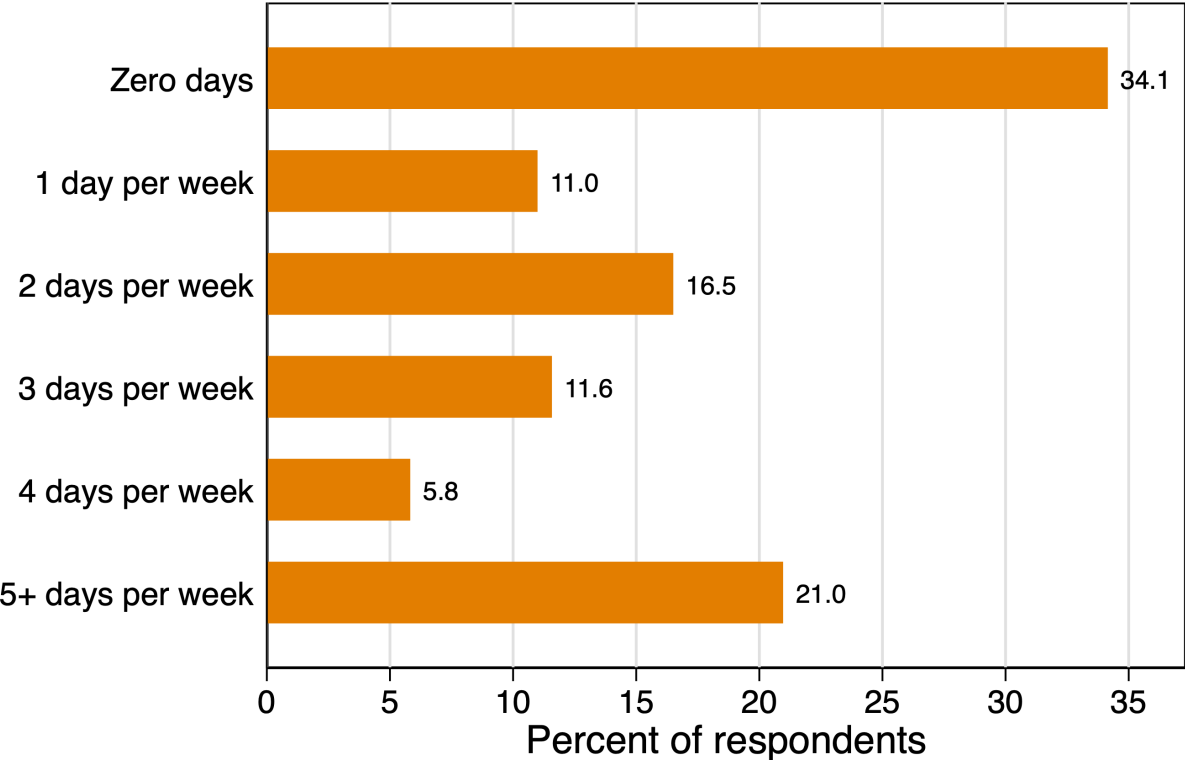


Worker desired amount of post-COVID WFH days



Sample: Full-time wage and salary employees who are able to WFH. N = 12253

Current amount of WFH days



Sample: Full-time wage and salary employees who are able to WFH. N = 11820

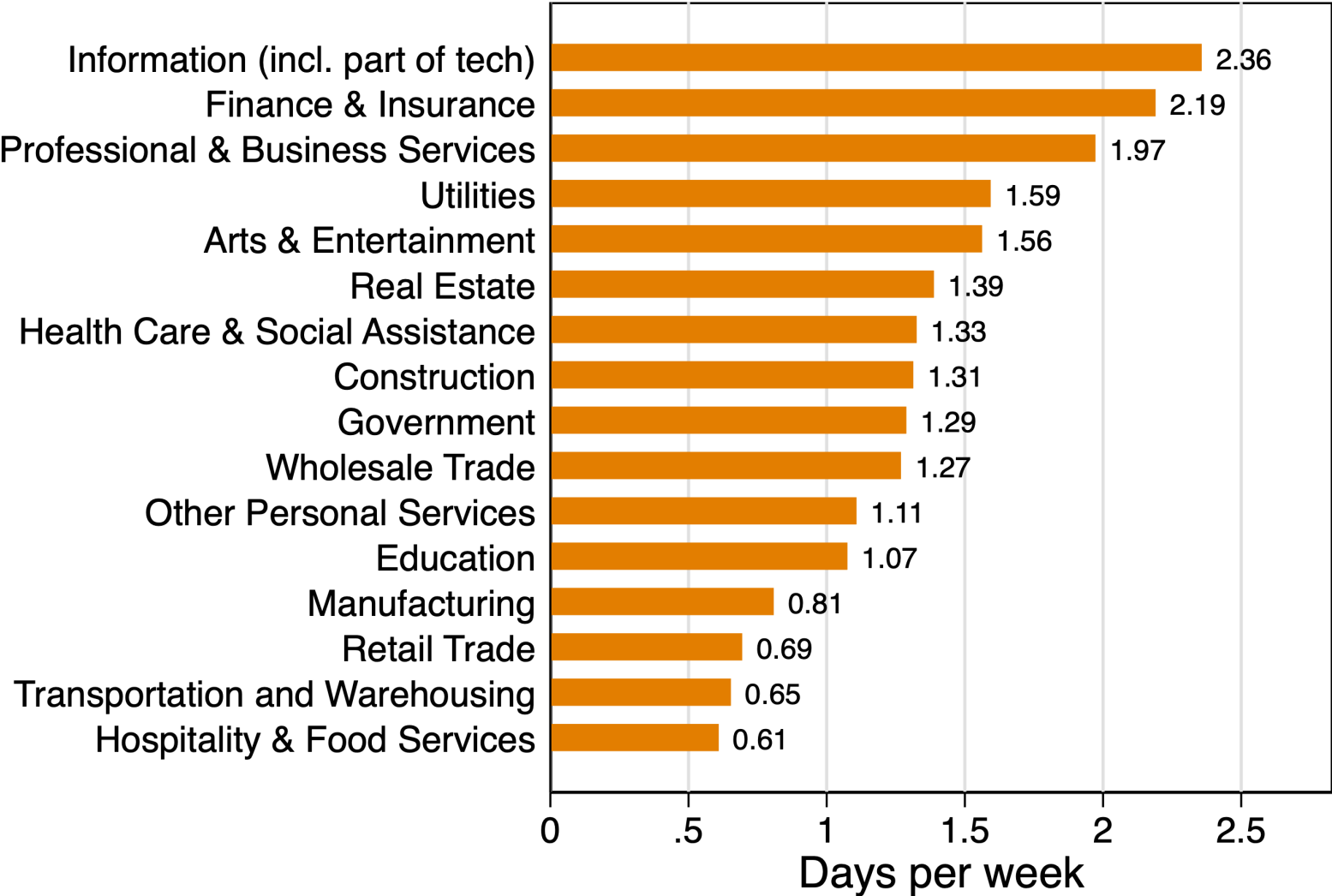
Responses to the questions: *As the pandemic ends*, how often would you **like to** have paid workdays at home? *For each day last week*, did you **work a full day (6 or more hours)**, and if so **where**?

Sample: Data are from the February to May 2023 SWAA waves. The sample includes full-time wage and salary employees (i.e. who worked 5 or more days during the survey reference week) who have work-from-home experience during the pandemic and pass the attention-check questions. Numbers for “5 days per week” in the right chart include responses for 6 or 7 full days worked from home. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match Current Population Survey on age, sex, education, and earnings.

Working from Home is Most Prevalent in the Tech, Finance, and Professional and Business Services Sectors



Current working from home: All wage and salary employees



Responses to the question:

- For each day last week, did you **work a full day (6 or more hours)**, and if so **where?**

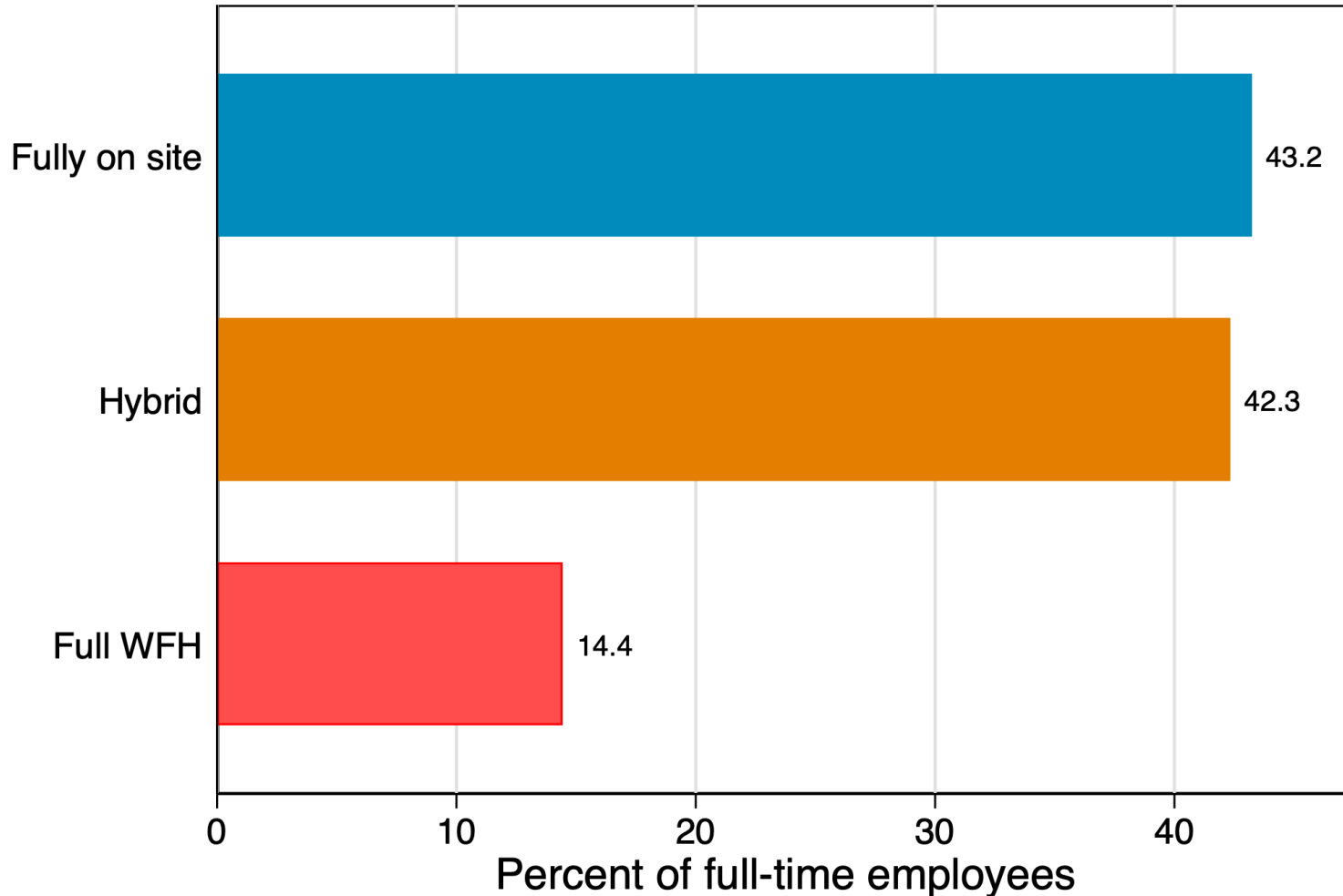
Sample: Data are from the December 2022 to May 2023 SWAA waves. The sample includes all wage and salary employees who pass the attention-check questions. We exclude mining due to insufficient observations and agriculture to focus on non-farm jobs. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match Current Population Survey on age, sex, education, and earnings.

N = 27,744

For College Graduates, Fully On-Site and Hybrid are the Most Common Working Patterns



Working Arrangements of College Grads February to May 2023



Source: Responses to the questions:

- For each day last week, did you work a full day (6 or more hours), and if so where?

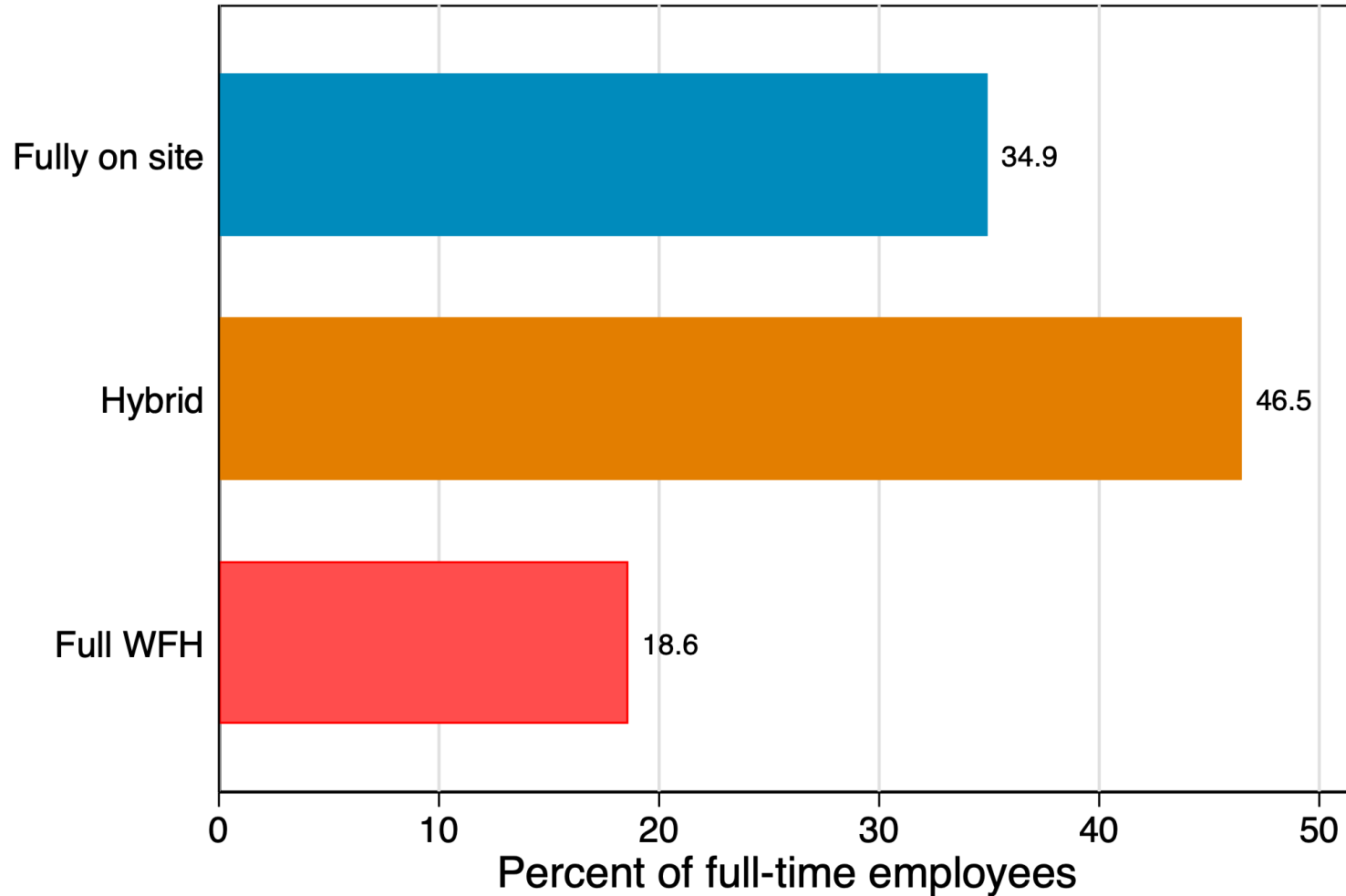
Notes: We compute the percent of full-time (i.e. work 5+ days/week) wage and salary employees with at least a 4-year college degree who either i) worked all their days on business premises; ii) worked some days on business premises and some days at home; or iii) worked all all days at home during the survey's reference week. Then we show the percentage for each group. The sample covers the February to May 2023 waves of the SWAA. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in 2019 or 2021 to match CPS shares by age-sex-education-earnings cells.

N = 10,714

For Employees that Can Work from Home, the Most Common Practice is Hybrid



Working Arrangements of Those Able to WFH Feb to May 2023



Source: Responses to the questions:

- For each day last week, did you work a full day (6 or more hours), and if so where?

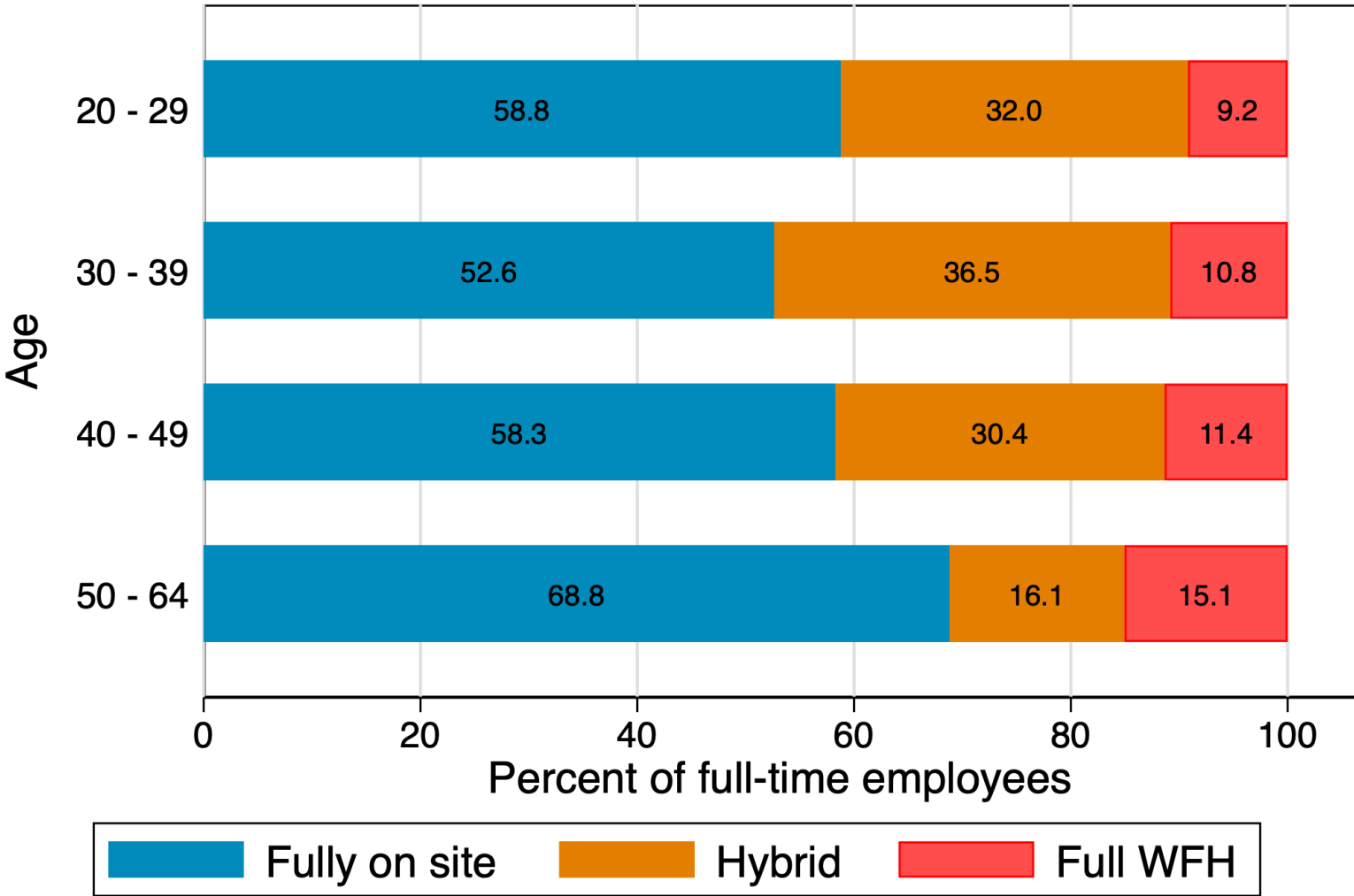
Notes: We compute the percent of full-time (i.e. work 5+ days/week) wage and salary employees who are able to work from home and either i) worked all their days on business premises; ii) worked some days on business premises and some days at home; or iii) worked all all days at home during the survey's reference week. Then we show the percentage for each group. We infer that somebody is able to work from home if they currently do so 1+ days per week, or did so at some point since the start of COVID. The sample covers the February to May 2023 waves of the SWAA. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in 2019 or 2021 to match CPS shares by age-sex-education-earnings cells.

N = 13,155

Workers In Their 50s and 60s Are Fully Remote and Fully Onsite More Often Than Younger Workers



Working Arrangements by Age February to May 2023



Source: Responses to the questions:
 - For each day last week, did you work a full day (6 or more hours), and if so where?

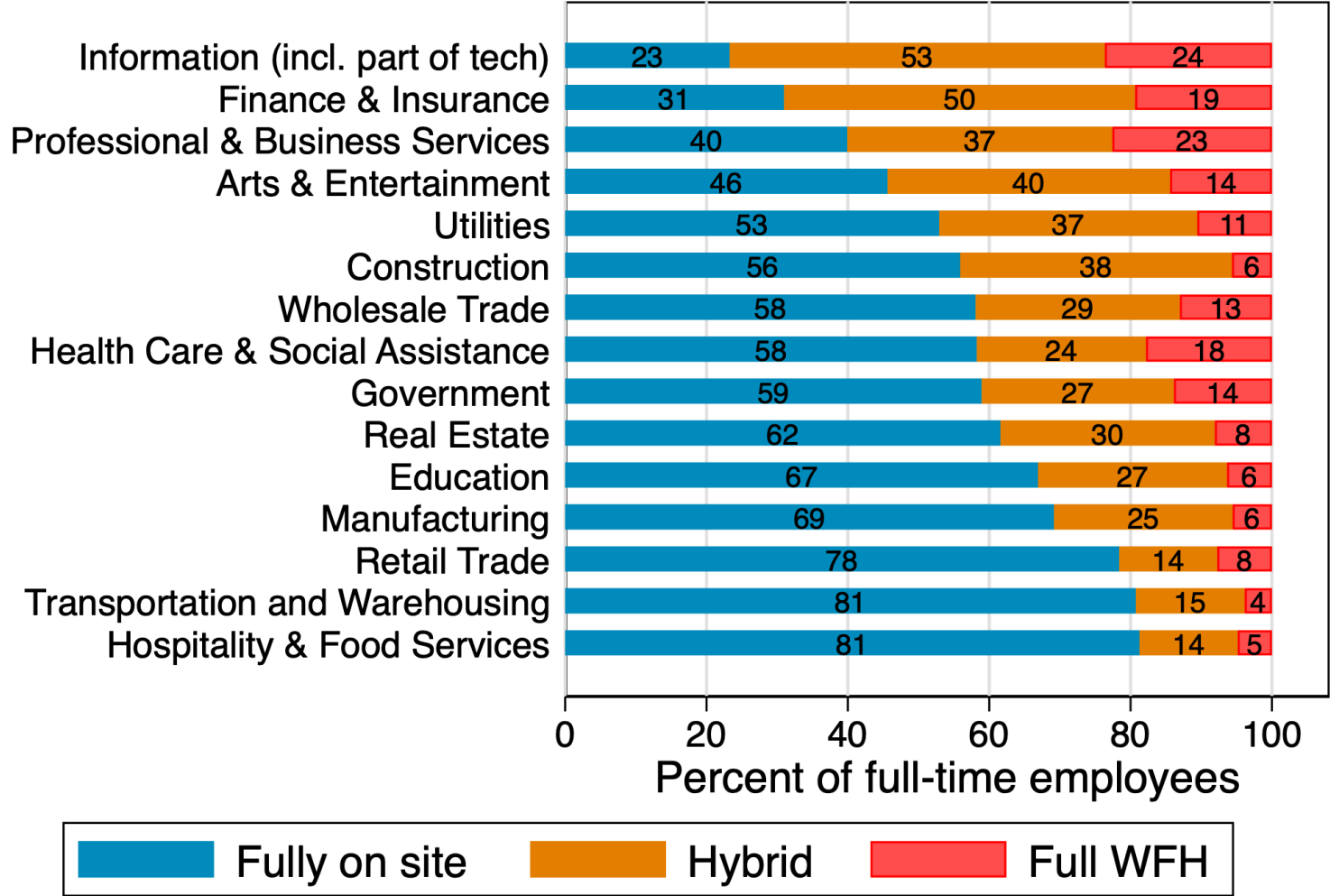
Notes: For each age group, we compute the percent of full-time (i.e. work 5+ days/week) wage and salary employees who either i) worked all their days on business premises; ii) worked some days on business premises and some days at home; or iii) worked all all days at home during the survey’s reference week. Then we show the percentage for each group. The sample covers the February to May 2023 waves of the SWAA. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

N = 17,332

Information, Finance & Insurance, and Prof. & Business Services Have The Largest Share of Hybrid and Remote Workers



Working Arrangements by Industry February to May 2023



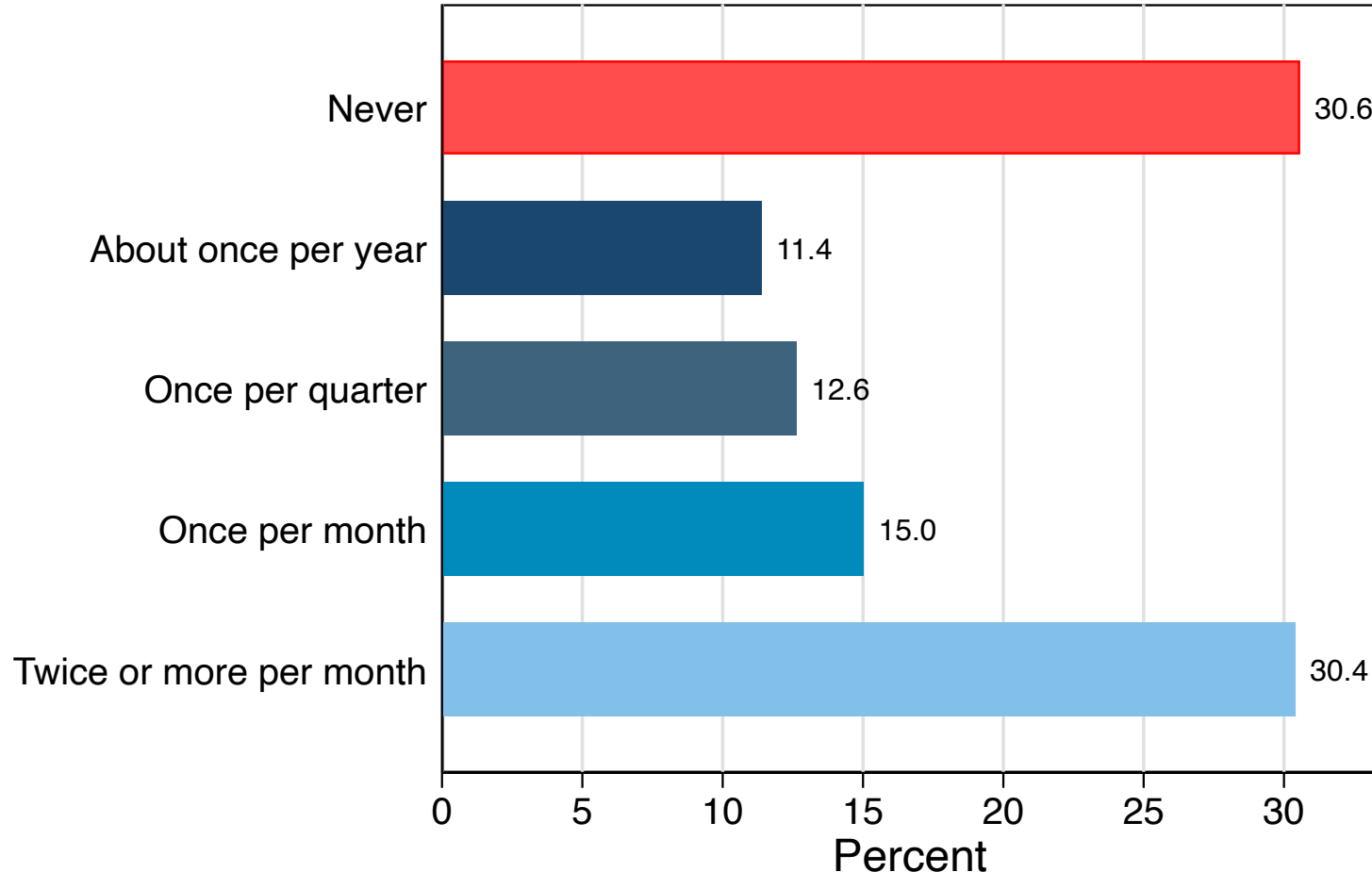
Source: Responses to the questions:
 - For each day last week, did you **work a full day (6 or more hours)**, and if so **where?**

Notes: For each age group, we compute the percent of full-time (i.e. work 5+ days/week) wage and salary employees who either i) worked all their days on business premises; ii) worked some days on business premises and some days at home; or iii) worked all all days at home during the survey’s reference week. Then we show the percentage for each group. The sample covers the February to May 2023 waves of the SWAA. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells. We exclude agriculture, construction, mining, and other personal services, the latter two due to insufficient observations.
N = 16,926

45% of Workers Who Were Fully Remote During the Previous Week Meet Their Coworkers In Person At Least Monthly



Do you ever meet with your coworkers in person?
Sample: Workers who were fully remote last week



Source: Responses to the questions:

- *Do you ever meet with your coworkers in person?*

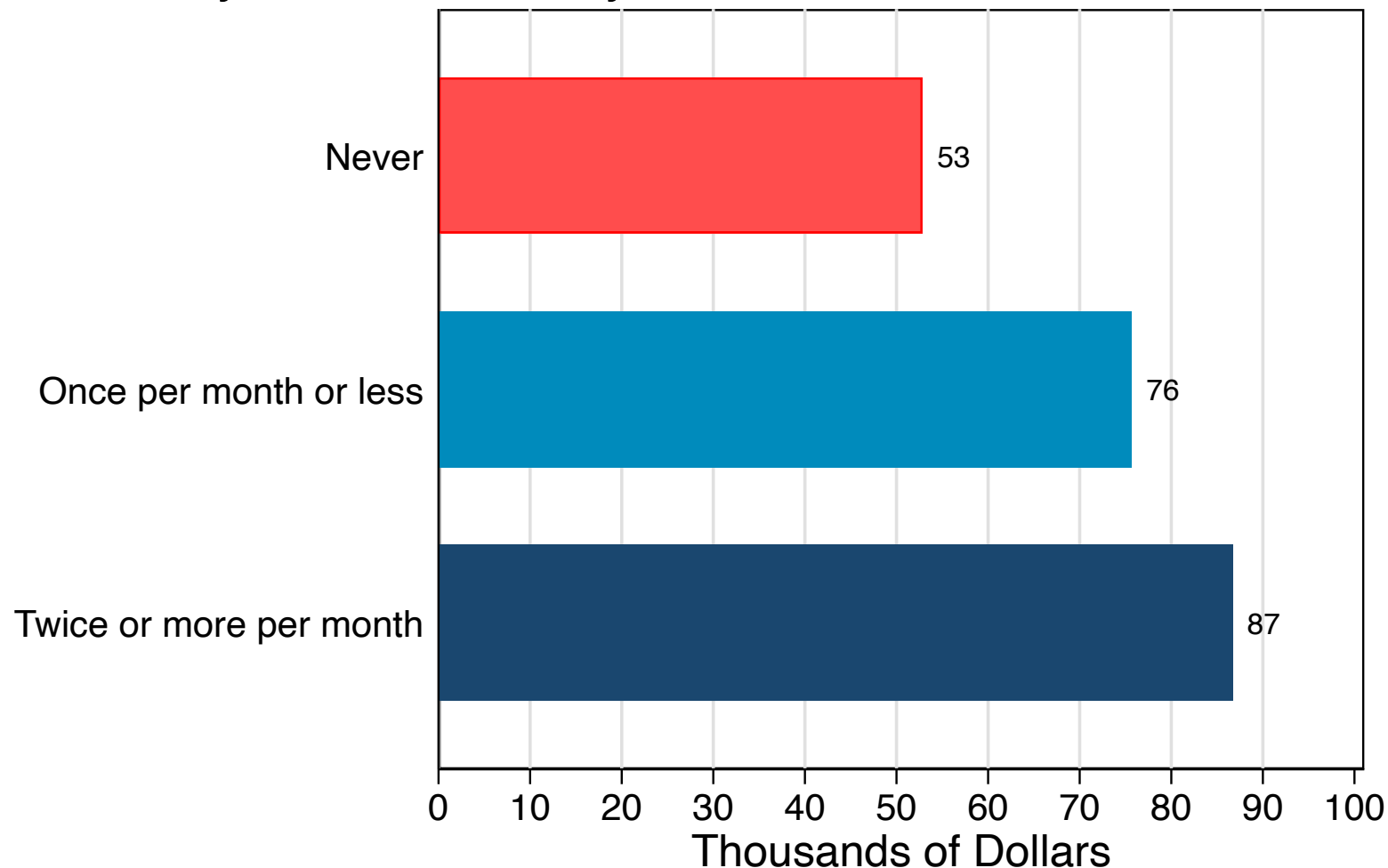
Notes: We ask the question above to anyone who reported working from home on all days worked in the reference week of the survey. The figure plots the distribution across the response options on the left, after excluding those who say “I have no coworkers.” The sample covers the May 2023 wave of the SWAA. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

N = 965

Workers Who Were Fully Remote the Previous Week But Who Meet Their Coworkers More Often Have Higher Average Earnings



Average Annual Earnings Among Fully Remote Workers By How Often They Meet Their Coworkers



Source: Responses to the questions:

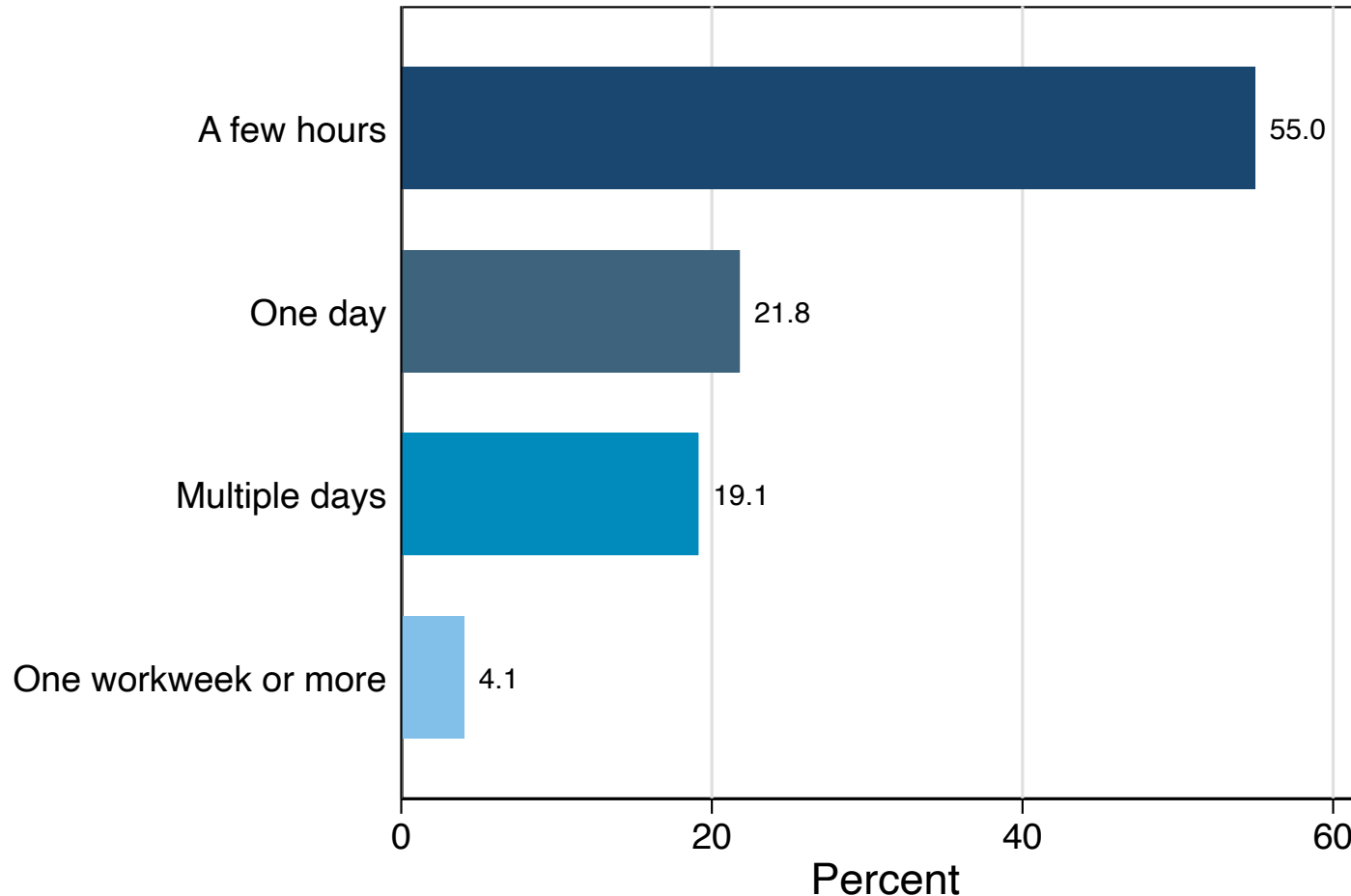
- *Do you ever meet with your coworkers in person?*
- *Approximately how much did you earn by working in 2022, on a before-tax basis?*

Notes: The figure shows the average earnings (based the second question) for groups defined by the responses to the first question. The sample covers the May 2023 wave of the SWAA, focusing on workers who were fully remote the previous week and excluding those who say “I have no coworkers.” We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

N = 965

55% of Workers Who Were Fully Remote Last Week Meet Their Coworkers for A Few Hours When They Do Meet Them

When you do meet your coworkers, for how long do you meet?



Source: Responses to the questions:
- *When you do meet your coworkers, for how long do you meet?*

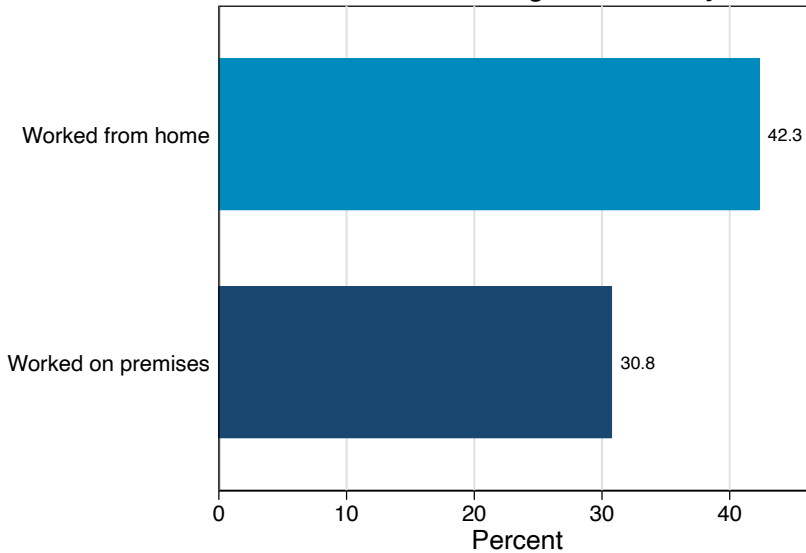
Notes: We ask the question above to anyone who reported working from home on all days worked in the reference week of the survey, and said they meet their coworkers at least once per year. The figure plots the distribution across the response options on the left. The sample covers the May 2023 wave of the SWAA. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

N = 735

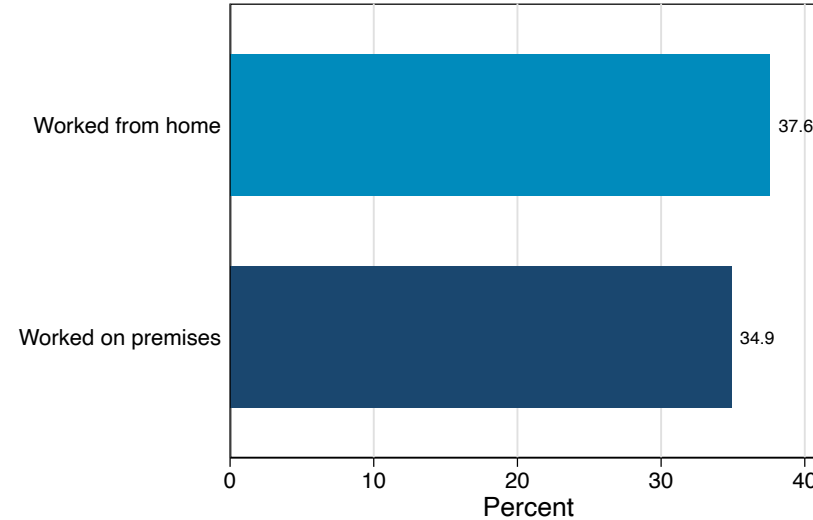
Working from Home Gives Workers Flexibility to Exercise, Do Chores, Care for Children, and Run Errands



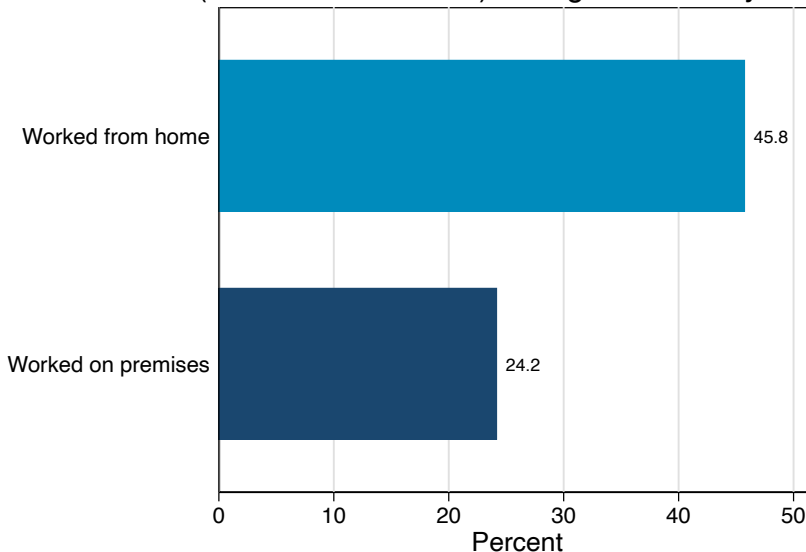
Exercised during the workday



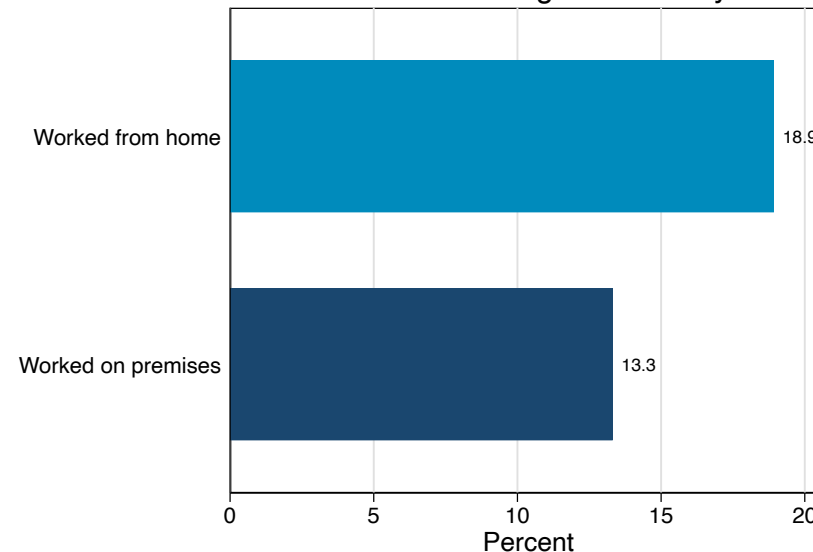
Ran personal errands (e.g. medical appointment) during the workday



Did chores (other than childcare) during the workday



Childcare during the workday



Responses to the question:

- Did you do any of the following **during the workday** (while on a break, during lunch, etc.) last [random day of the week]?

Please check all that apply.

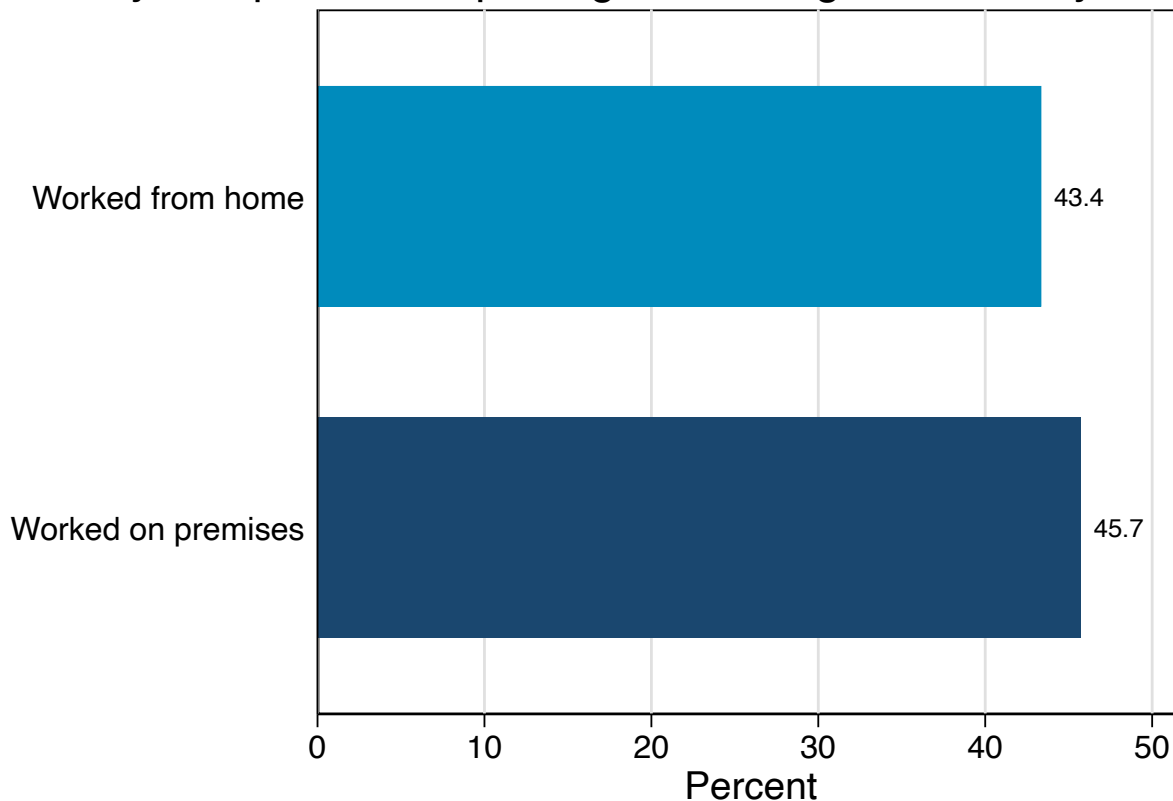
Notes: We randomly ask respondents the question above, randomizing across the most recent Monday/Tuesday/Wednesday/Thursday/Friday. The sample covers May 2023 wave respondents who are able to work from home and worked during the week prior to the survey. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

N = 4,537

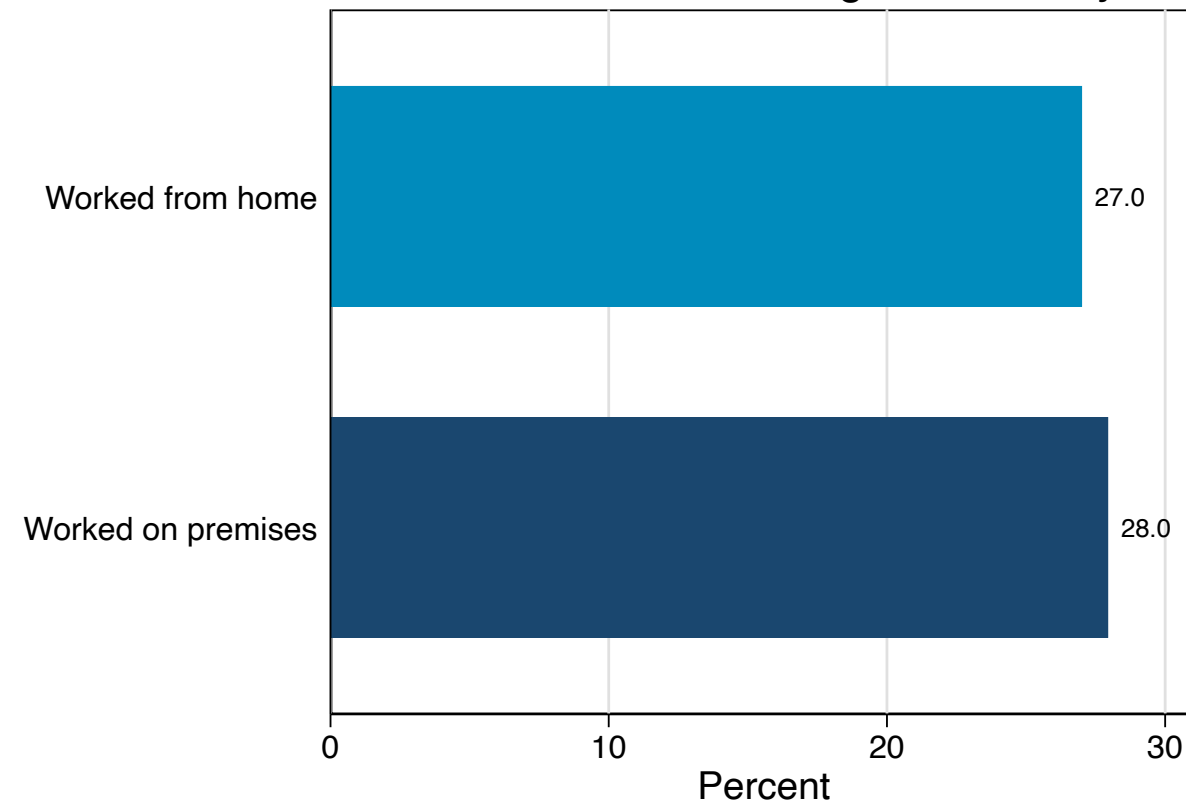
Workers Report Playing Games and Reading for Leisure During the Workday Similarly While Working from Home or from the Workplace



Played a phone/computer game during the workday



Read for leisure during the workday



Responses to the question: *Did you do any of the following during the workday (while on a break, during lunch, etc.) last [random day of the week]?* Please check all that apply.

Notes: We randomly ask respondents the question above, randomizing across the most recent Monday/Tuesday/ Wednesday/Thursday/Friday. The sample covers May 2023 wave respondents who are able to work from home and worked during the week prior to the survey. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

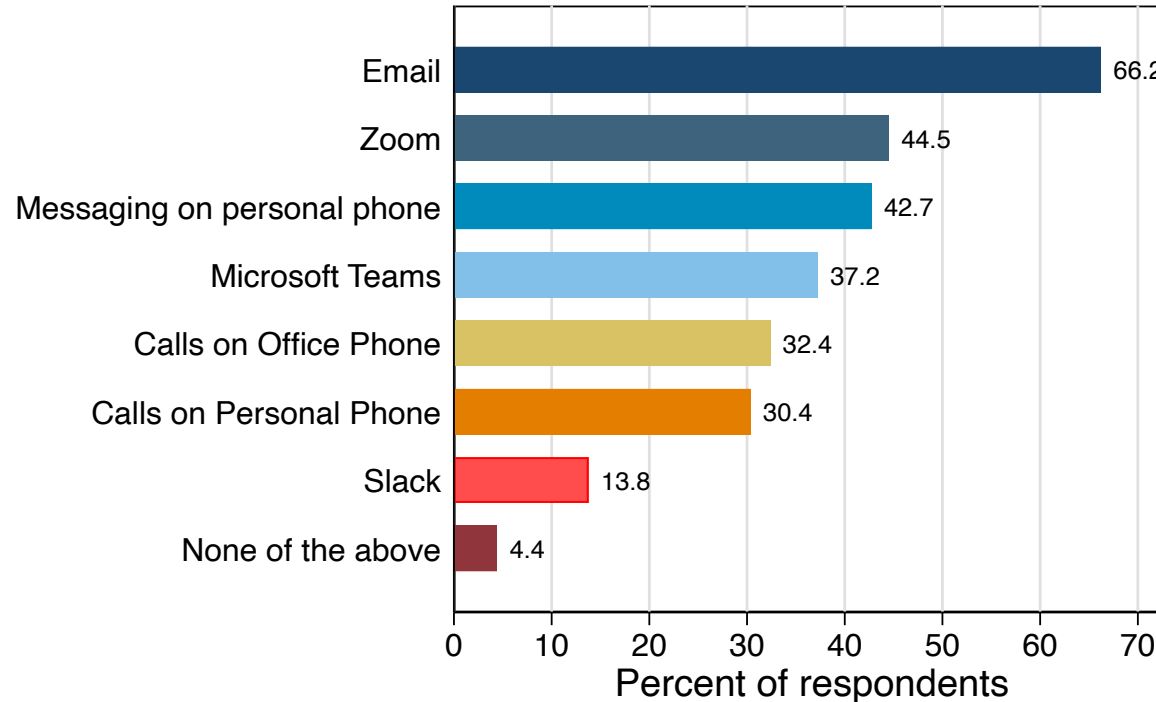
N = 4,537

Hybrid and Fully Remote Workers Use Business-Oriented Text and Video-Conferencing Platforms More Often



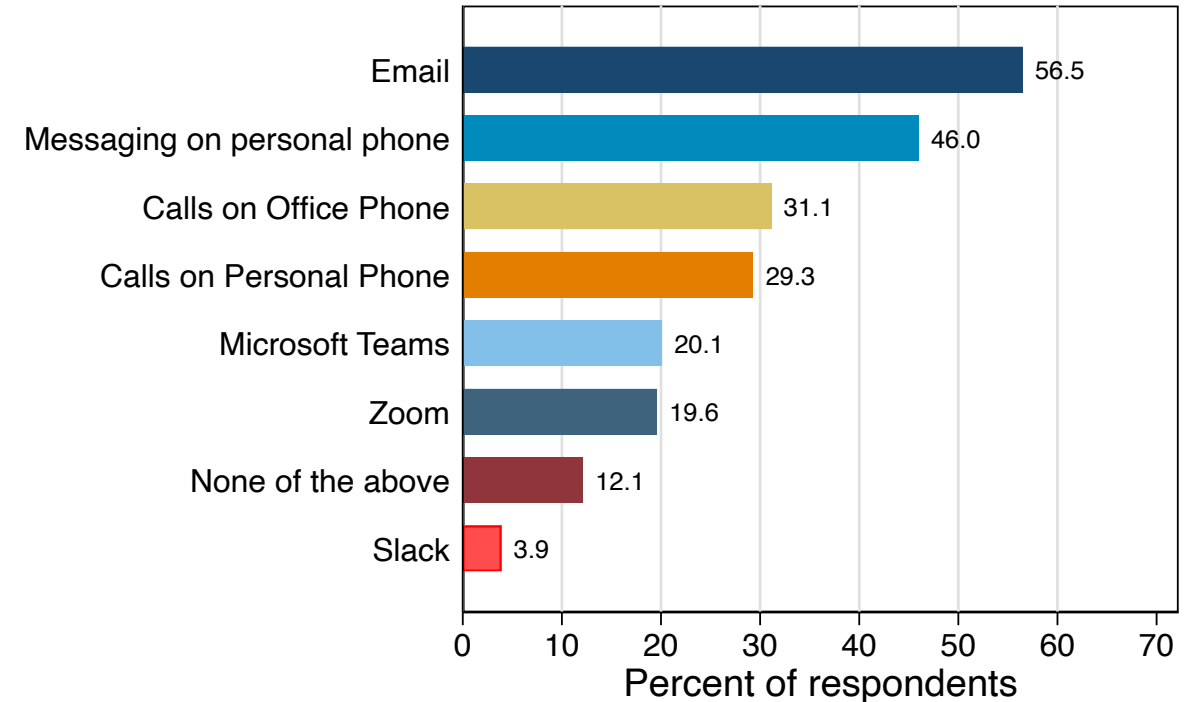
Which of the following channels do you use to communicate with others for work purposes?

Sample: Hybrid and Fully Remote Workers



Which of the following channels do you use to communicate with others for work purposes?

Sample: Fully In-Person Workers



Responses to the question: *Which of the following channels do you use to communicate with others for work purposes?* Please select all that apply.

Notes: The figure shows the distribution of responses to the above question, which we pose to respondents who worked in the previous week or didn't work but were employed and paid. The sample covers May 2023 wave respondents. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

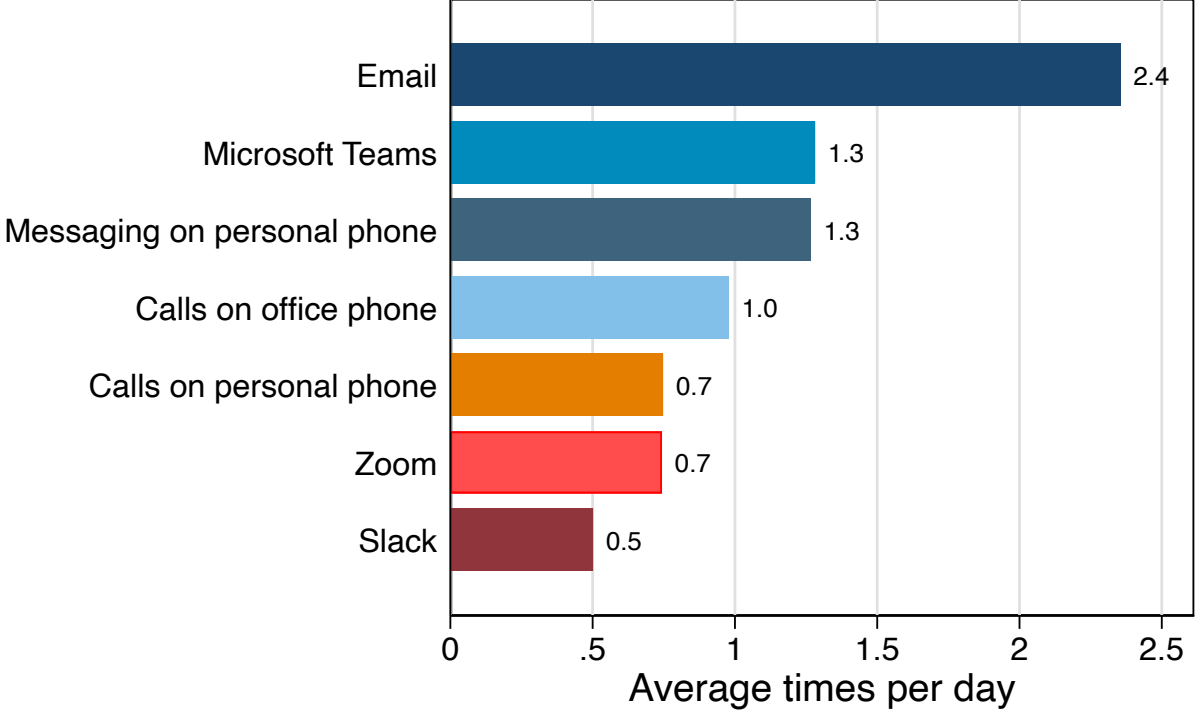
N = 2,765 (left). N = 3,488 (right)

Hybrid Fully Remote Workers Use Email and Business-Oriented Text and Video-Conferencing Platforms More Often



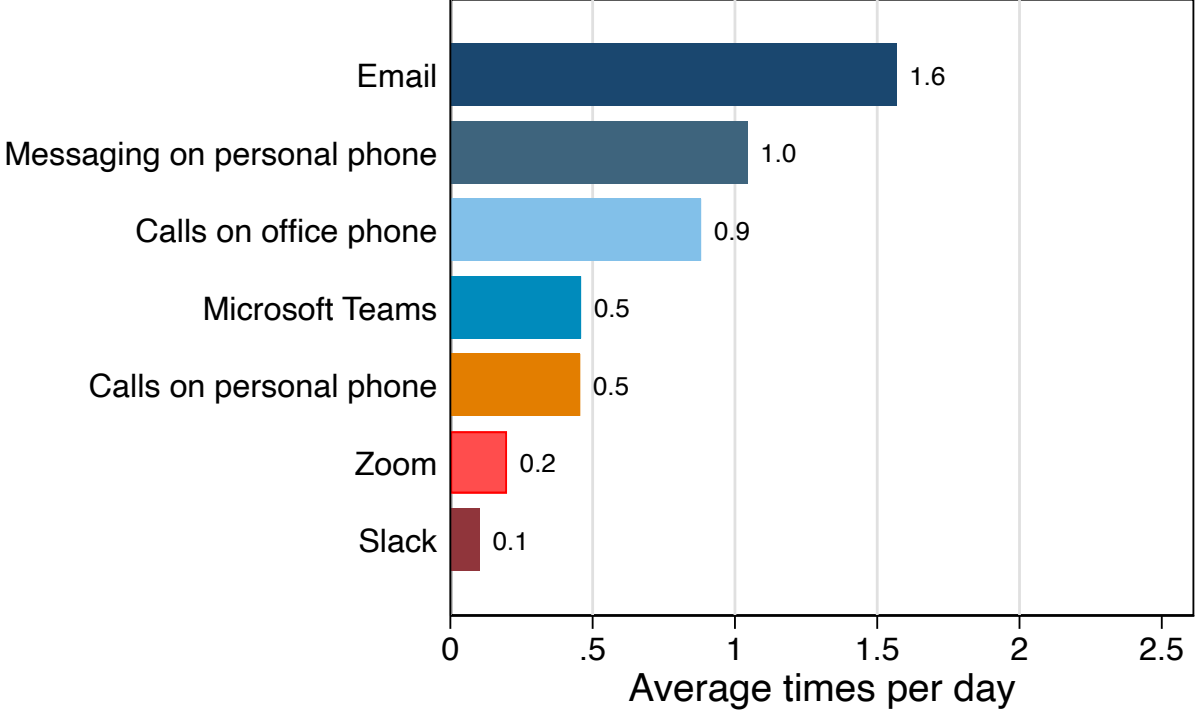
How often do you use each of these work-related communications?

Sample: Hybrid and Full Remote Workers



How often do you use each of these work-related communications?

Sample: Fully In-Person Workers



Responses to the question: *In your current job, how often do you use each of these work-related communications?* Hourly, Daily, Weekly, Once or twice per month

Notes: The figure shows the average number of times per day respondents use the communication channels noted, after translating the categorical response options to frequencies and assigning zeros when a worker doesn't use a particular channel. The sample covers May 2023 wave respondents. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

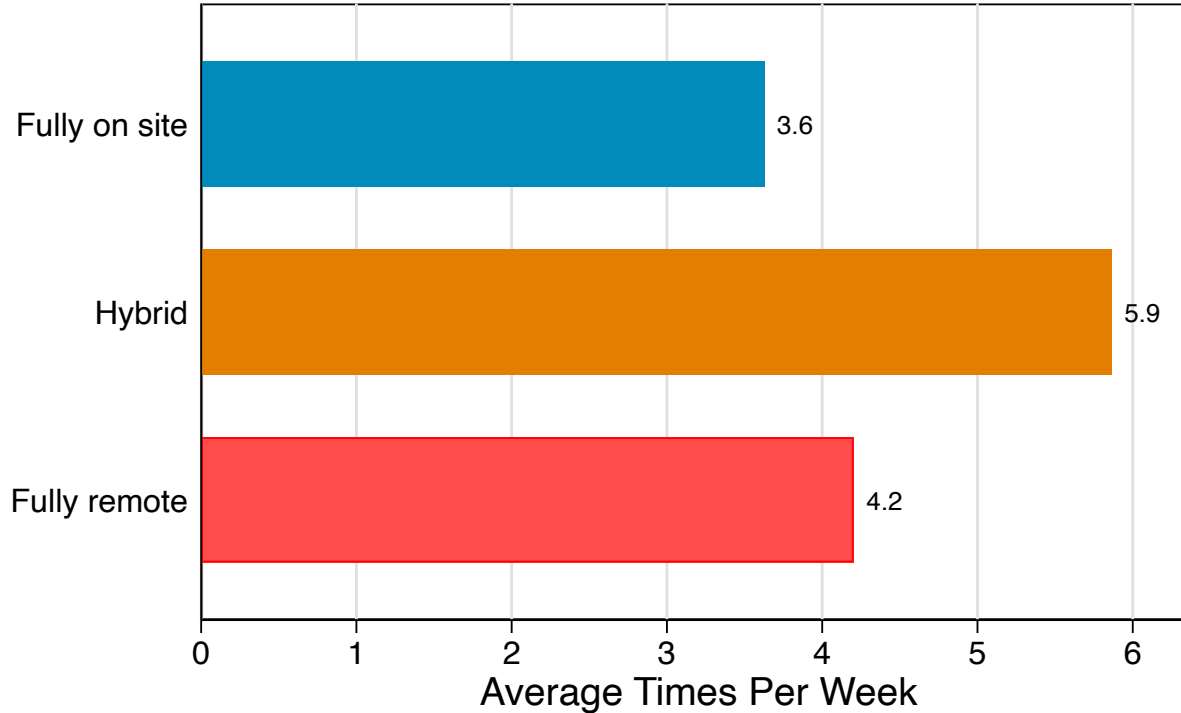
N = 2,765 (left). N = 3,488 (right)

Hybrid Workers Who Are College Graduates Report Responding to Work-Related Communications After Hours/On Weekends Most Often



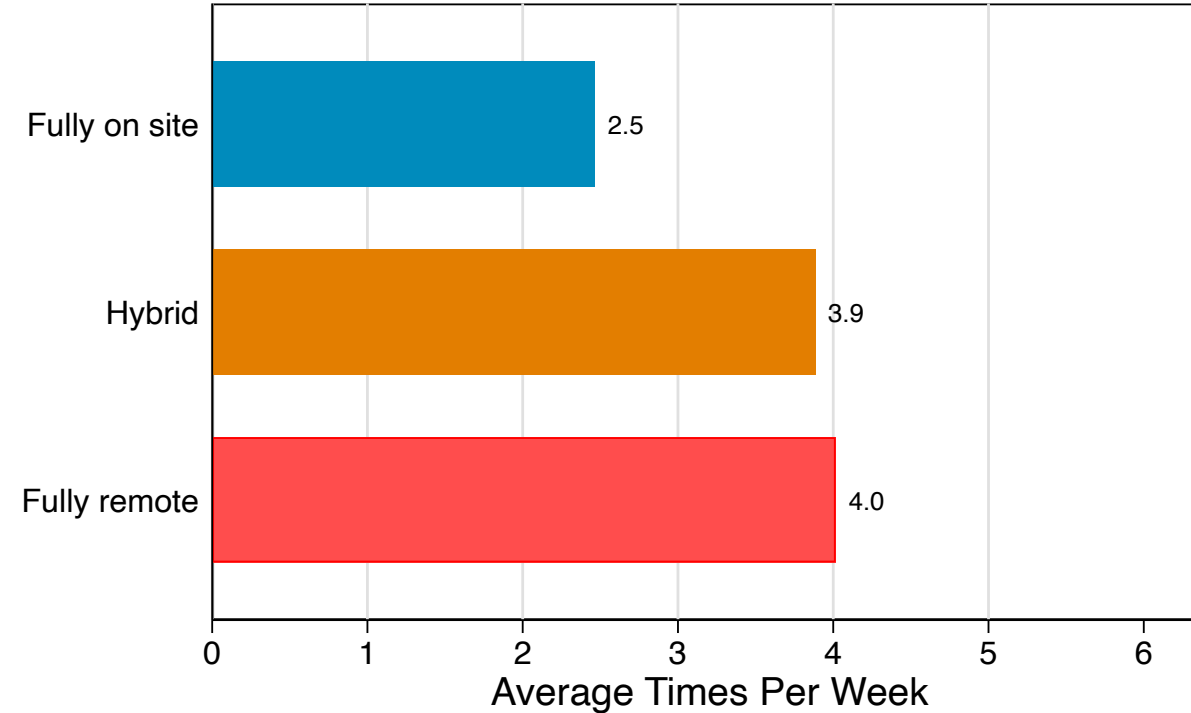
How often do you respond to work-related electronic communications after hours or on weekends?

Sample: Employed respondents with at least a bachelor's degree



How often do you respond to work-related electronic communications after hours or on weekends?

Sample: Employed respondents with less than a bachelor's degree



Responses to the question: *In your current job, do you respond to work-related communications after hours or on weekends on any of the following?*
 Daily/Weekly/Monthly/Once or twice per year, for emergencies/Never

Notes: The figure shows the average number of times per week workers respond to electronic communications (i.e. email, Slack, Zoom, text messages, Microsoft Teams), after translating the categorical response options to frequencies and assigning zeros when a worker doesn't use a particular channel. The sample covers employed respondents in the May 2023 wave. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in a prior year to match CPS shares by age-sex-education-earnings cells.

N = 3,628 (left). N = 2,625 (right)

References



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