

The Future of Working From Home

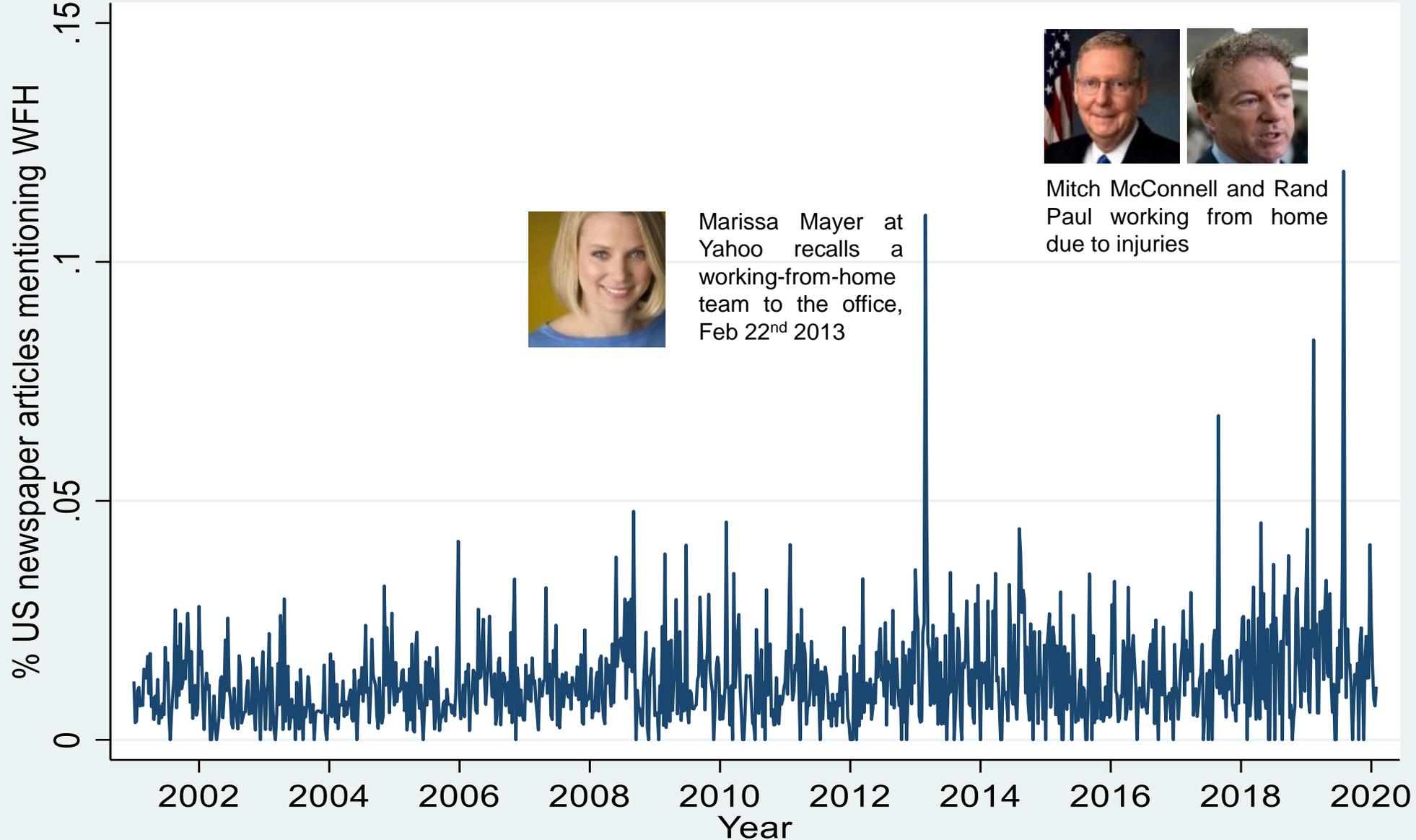
Nick Bloom (Stanford)

joint with Jose Barrero (ITAM) and Steve Davis (Chicago)

World Bank, July 2020



WFH coverage in US newspapers doubled from 2000 to January 2020



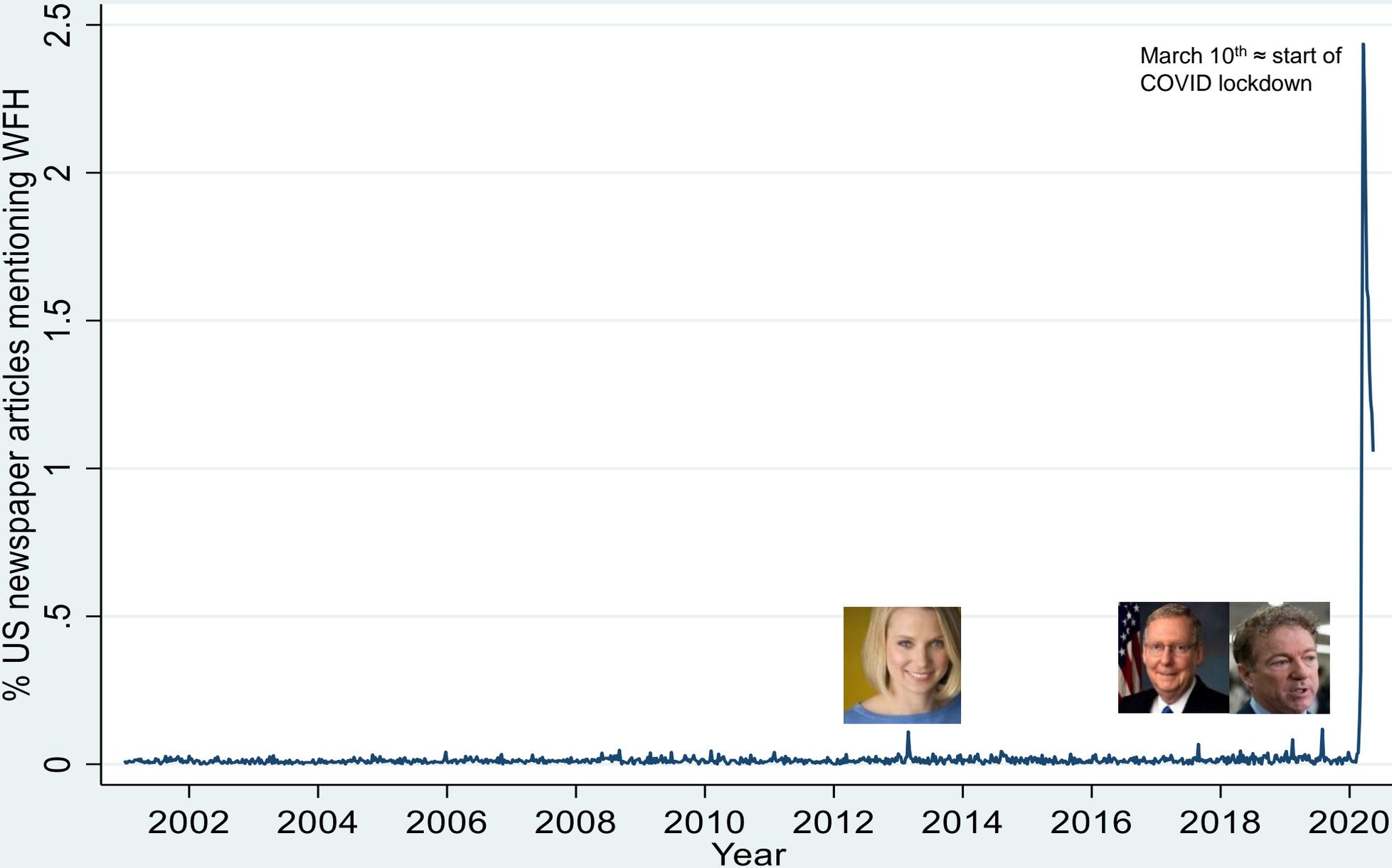
Marissa Mayer at Yahoo recalls a working-from-home team to the office, Feb 22nd 2013



Mitch McConnell and Rand Paul working from home due to injuries

Source: Newsbank Access World News collection of approximately 2000 national and local daily US newspapers. Shows the % of articles mentioning “working from home” or “WFH”. Daily data plotted as a weekly average. Data until January 2020

But increased another 120 times (12,000%) by June 2020!



Source: Newsbank Access World News collection of approximately 2000 national and local daily US newspapers. Shows the % of articles mentioning “working from home” or “WFH”. Daily data plotted as a weekly average. Data until June 2020

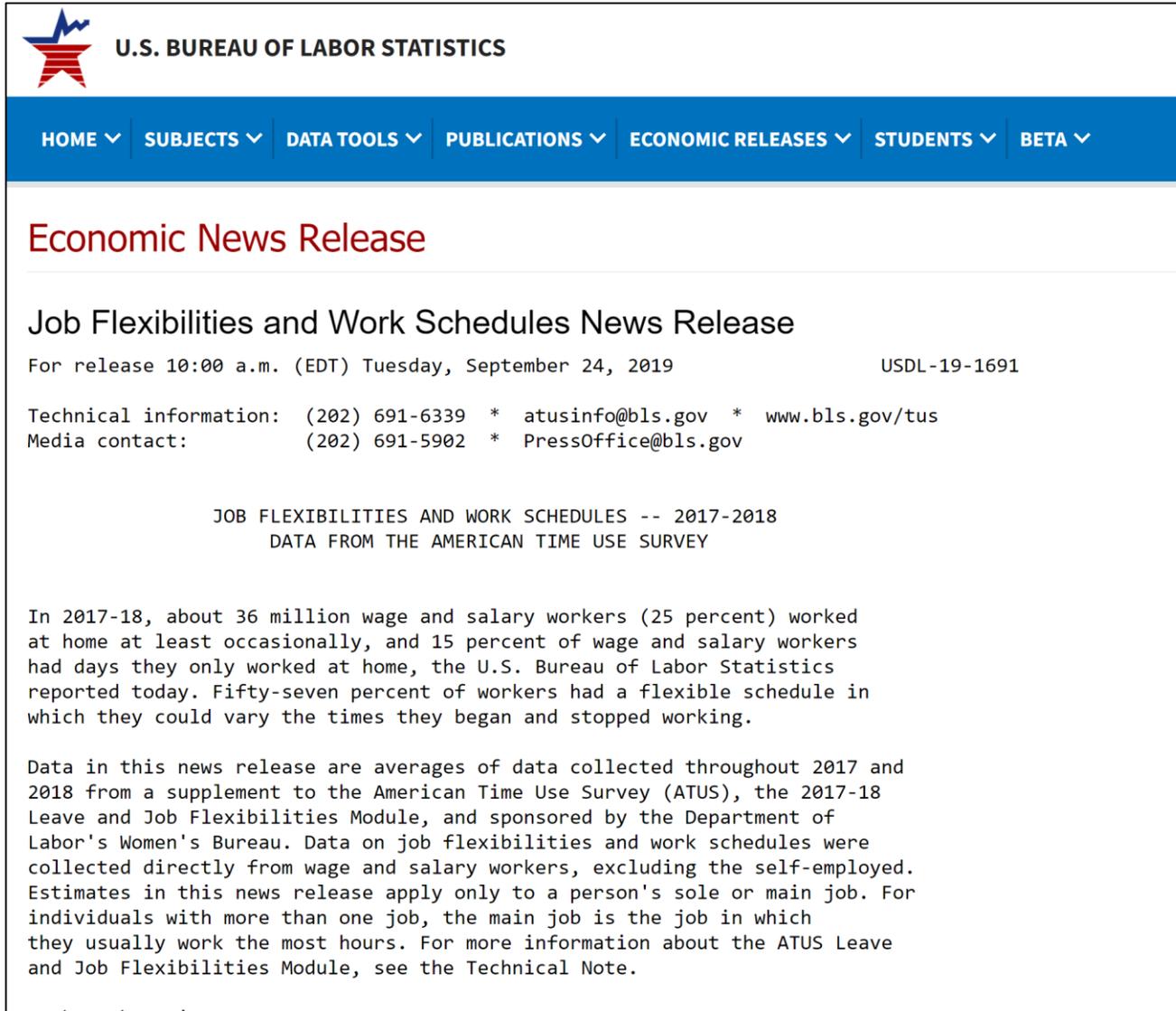
Working From Home Before COVID

Working From Home During COVID

Working From Home Post COVID

Tips on Working From Home

Main source of data a fantastic BLS survey



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Economic News Release

Job Flexibilities and Work Schedules News Release

For release 10:00 a.m. (EDT) Tuesday, September 24, 2019 USDL-19-1691

Technical information: (202) 691-6339 * atusinfo@bls.gov * www.bls.gov/tus
Media contact: (202) 691-5902 * PressOffice@bls.gov

JOB FLEXIBILITIES AND WORK SCHEDULES -- 2017-2018
DATA FROM THE AMERICAN TIME USE SURVEY

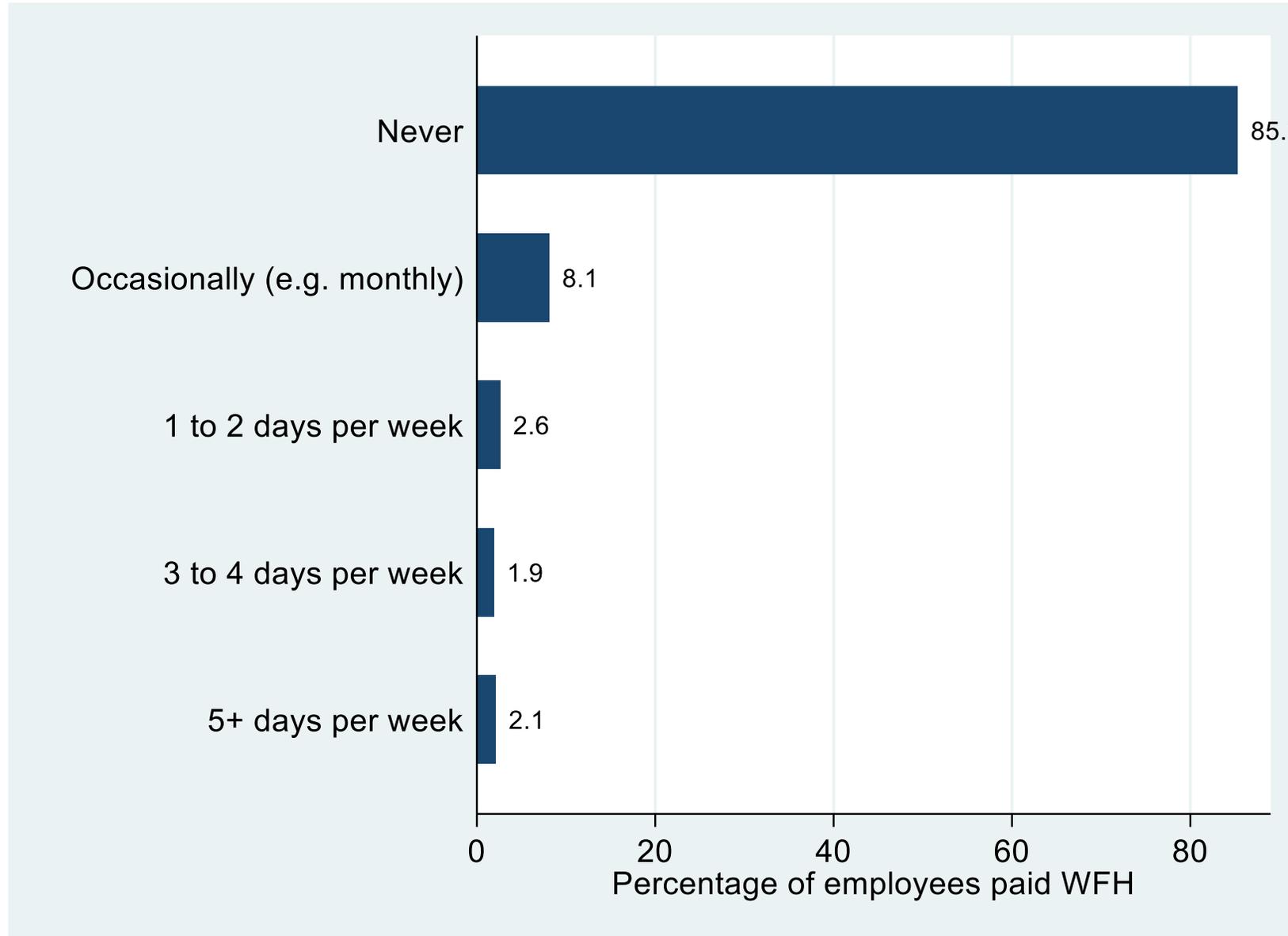
In 2017-18, about 36 million wage and salary workers (25 percent) worked at home at least occasionally, and 15 percent of wage and salary workers had days they only worked at home, the U.S. Bureau of Labor Statistics reported today. Fifty-seven percent of workers had a flexible schedule in which they could vary the times they began and stopped working.

Data in this news release are averages of data collected throughout 2017 and 2018 from a supplement to the American Time Use Survey (ATUS), the 2017-18 Leave and Job Flexibilities Module, and sponsored by the Department of Labor's Women's Bureau. Data on job flexibilities and work schedules were collected directly from wage and salary workers, excluding the self-employed. Estimates in this news release apply only to a person's sole or main job. For individuals with more than one job, the main job is the job in which they usually work the most hours. For more information about the ATUS Leave and Job Flexibilities Module, see the Technical Note.

- Surveyed continuously over 2017 and 2018 all wage and salaried workers (excluded self employed)
- Collected around 10,000 responses stratified across states, industries and geographies

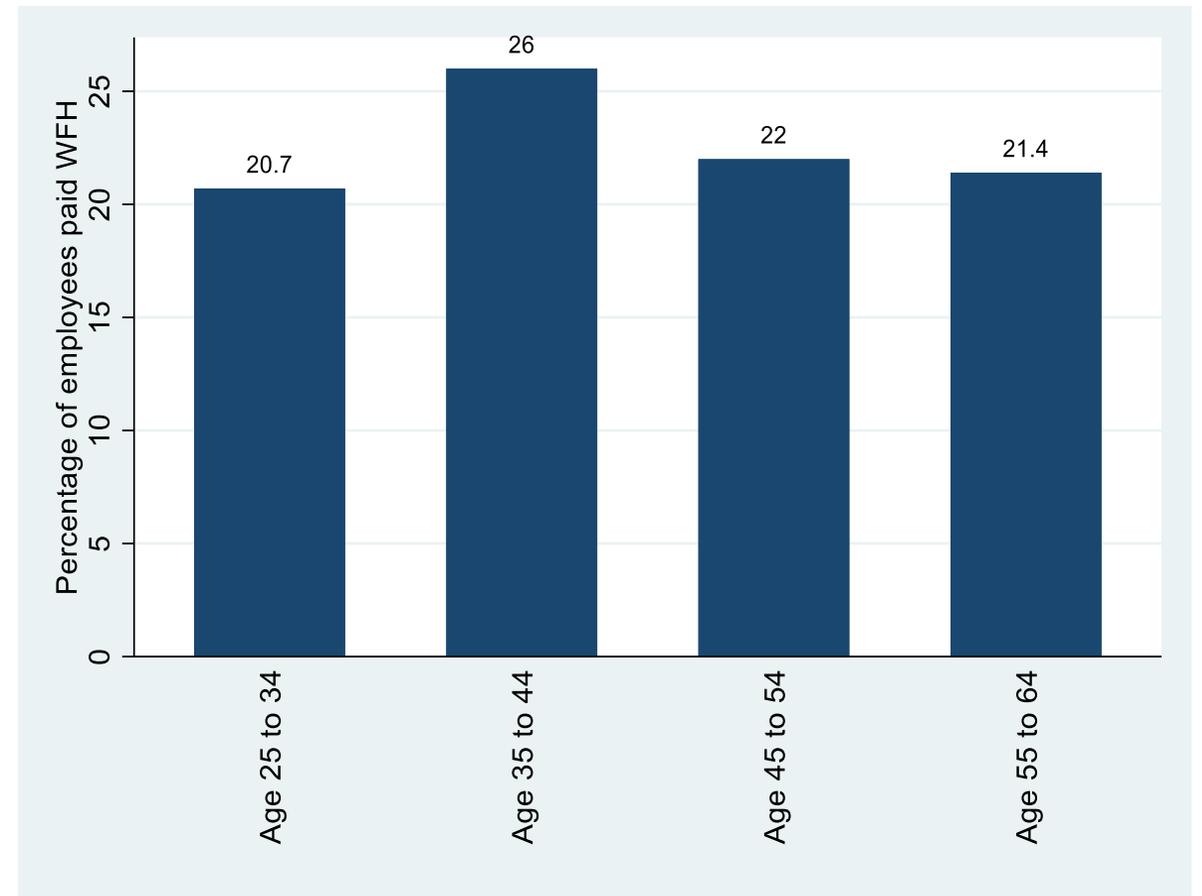
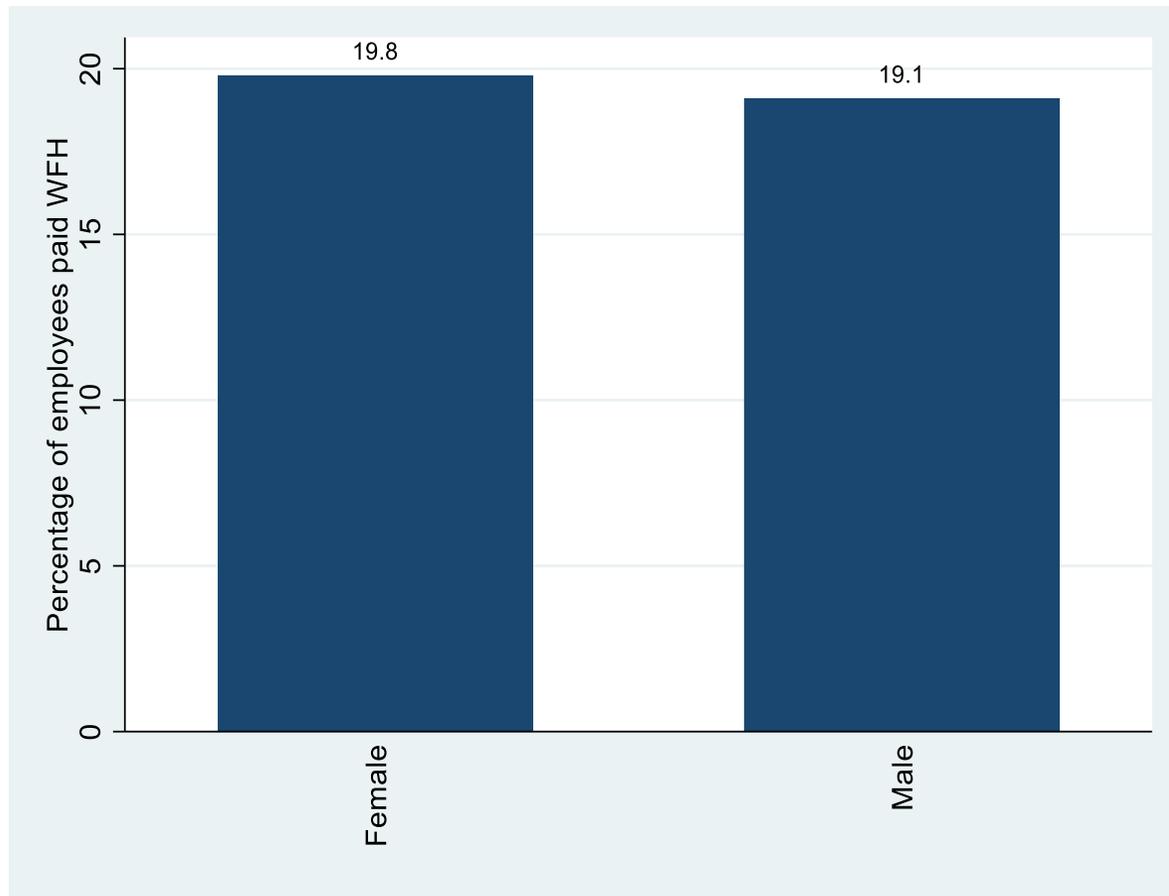
<https://www.bls.gov/news.release/flex2.htm>

Only 15% of Americans have paid full WFH days

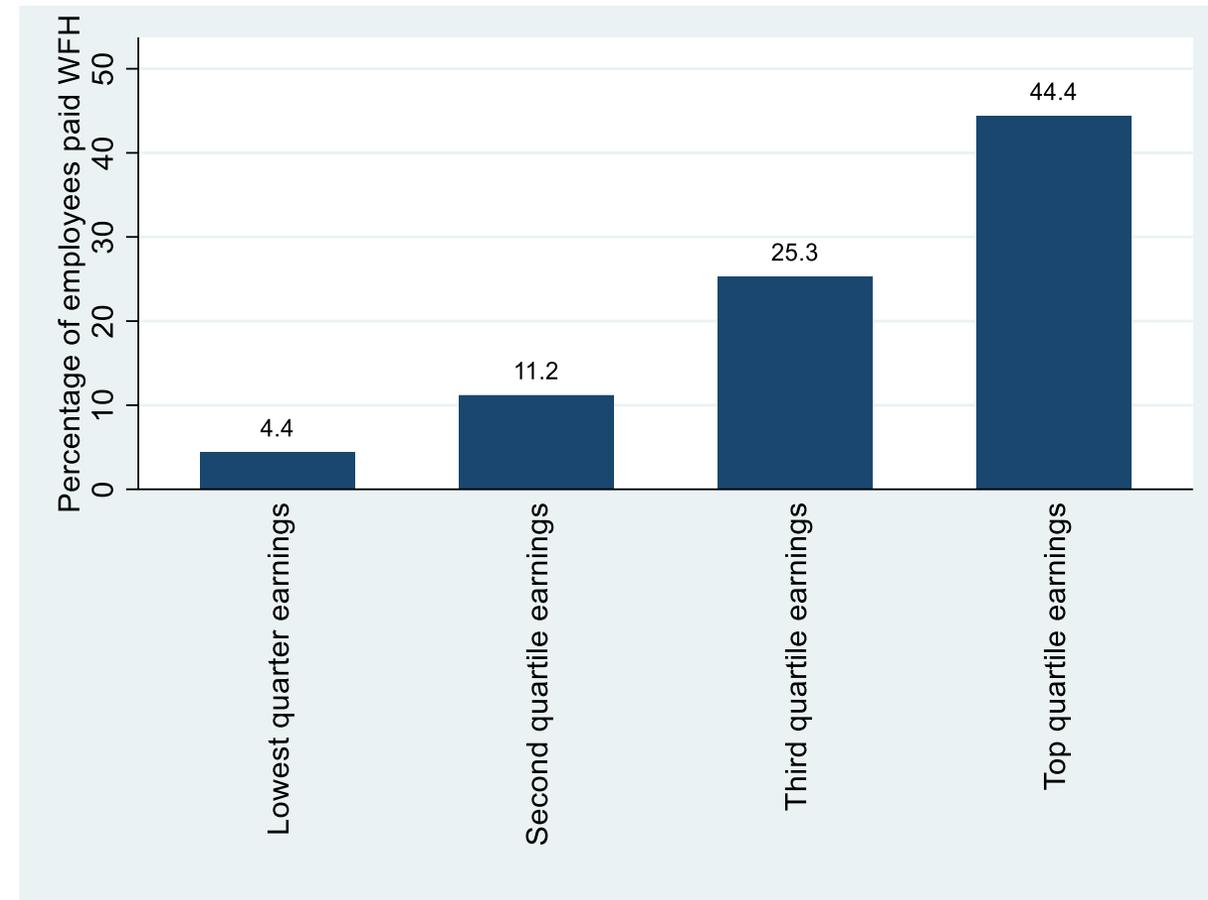
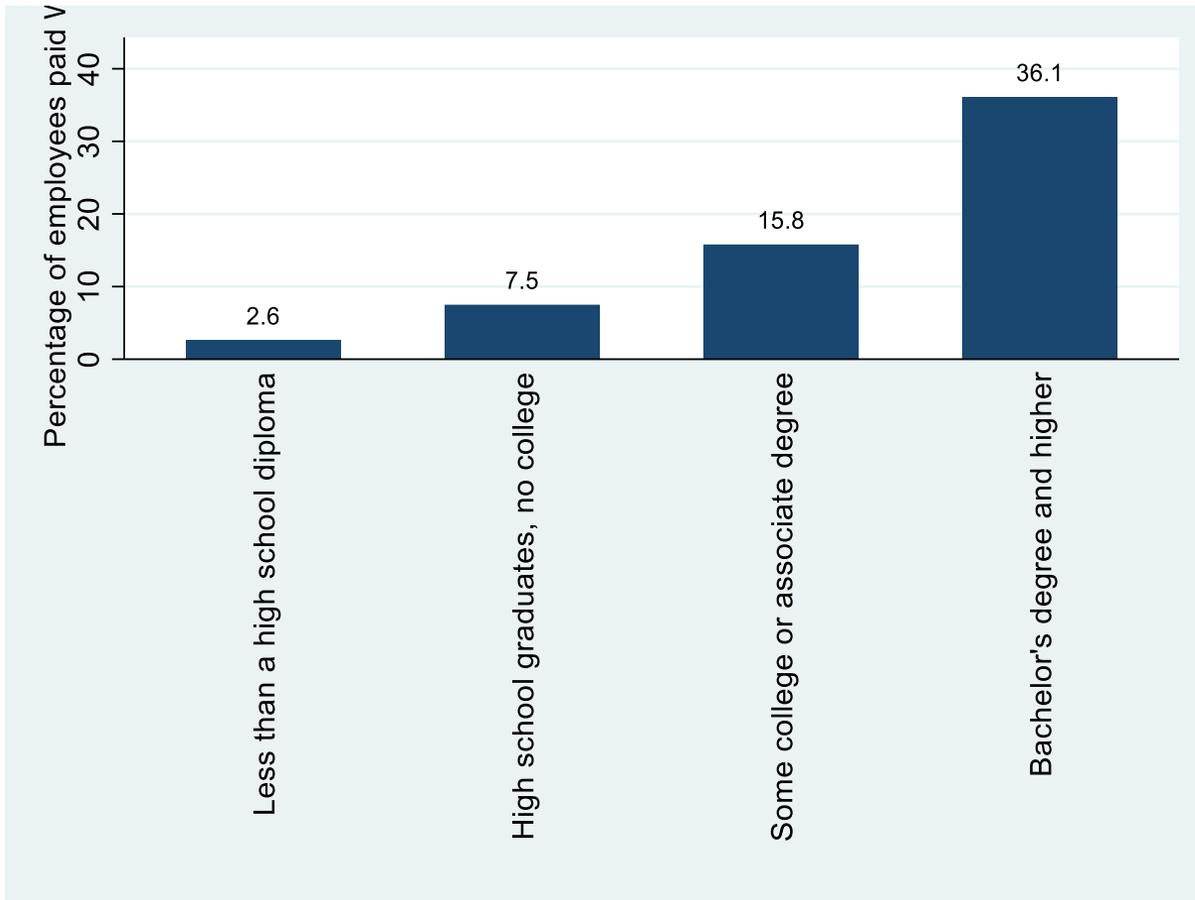


Source: BLS data <https://www.bls.gov/news.release/flex2.htm>

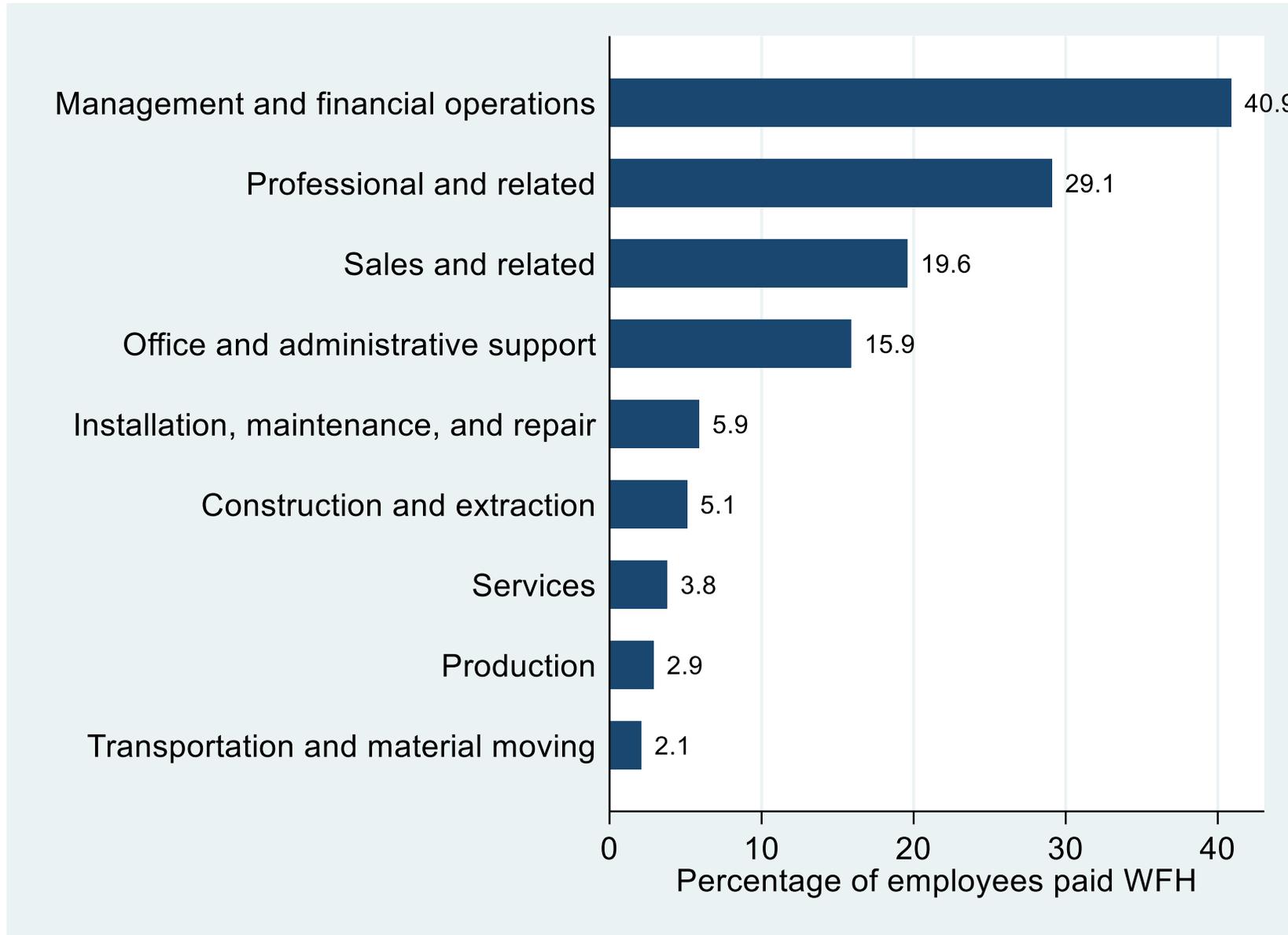
Working from home is pretty balanced by gender and age



But WFH much higher for more educated higher-earners



Working from home far higher for managers and professionals



Source: BLS data <https://www.bls.gov/news.release/flex2.htm>

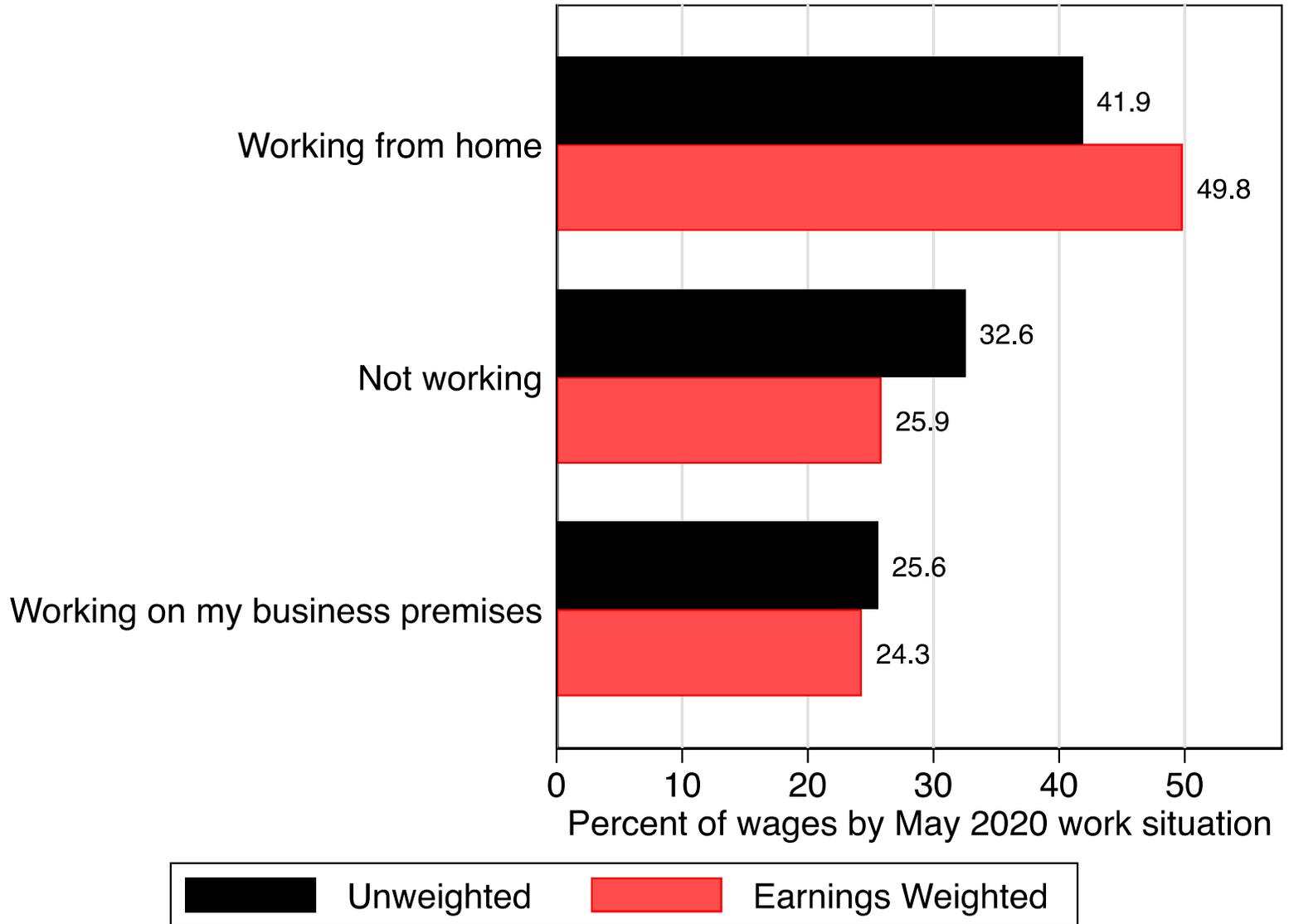
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During COVID 42% of US employees now full-time WFH, accounting for about two thirds of US GDP

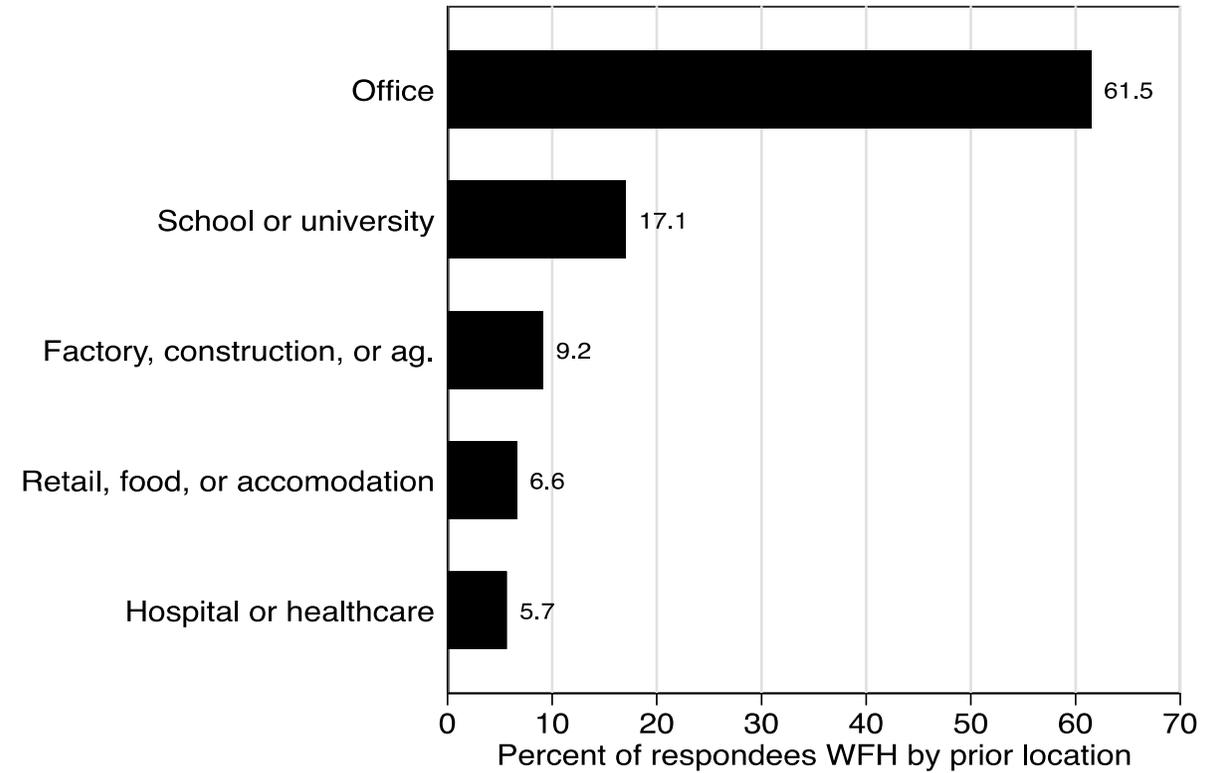
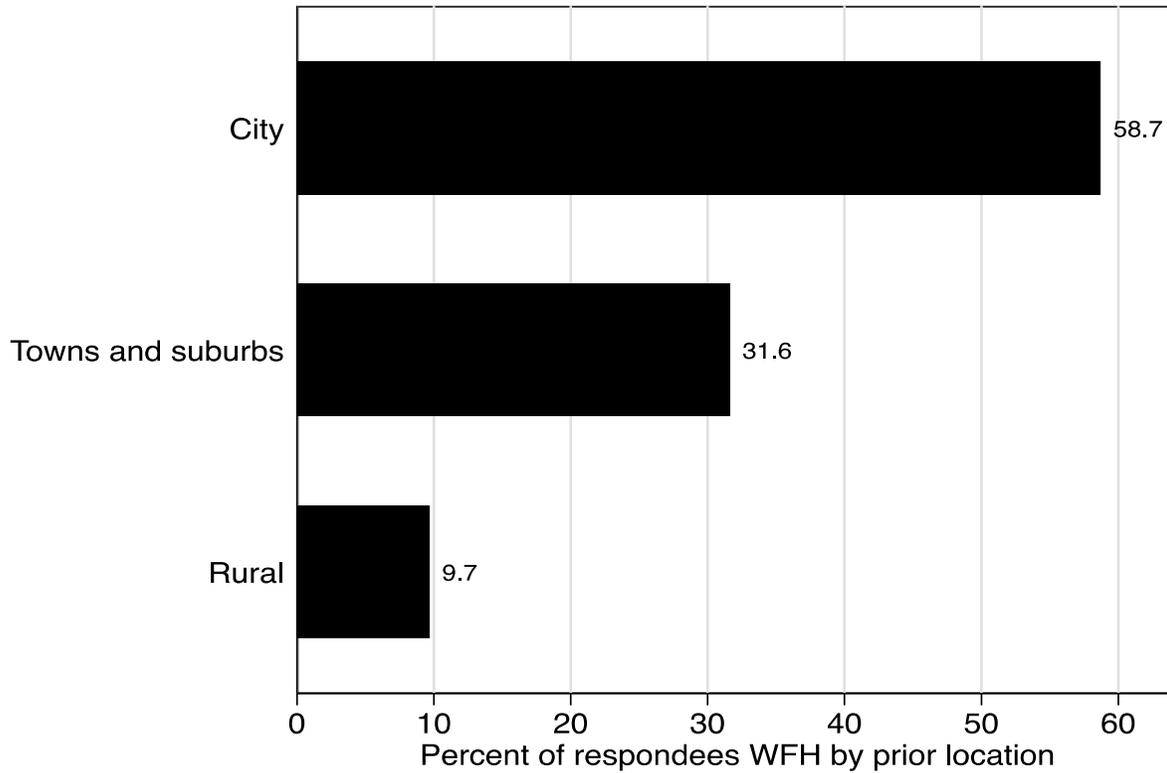


Source: Response to the question “Currently (this week) what is your work status?” Response options were “Working on my business premises “, “Working from home”, “Still employed and paid, but not working “, “Unemployed, but expect to be recalled to my previous job “, “Unemployed, and do not expect to be recalled to my previous job “, and “Not working, and not looking for work “

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between May 21-29, by QuestionPro on behalf of Stanford University. Sample reweighted to match current CPS.

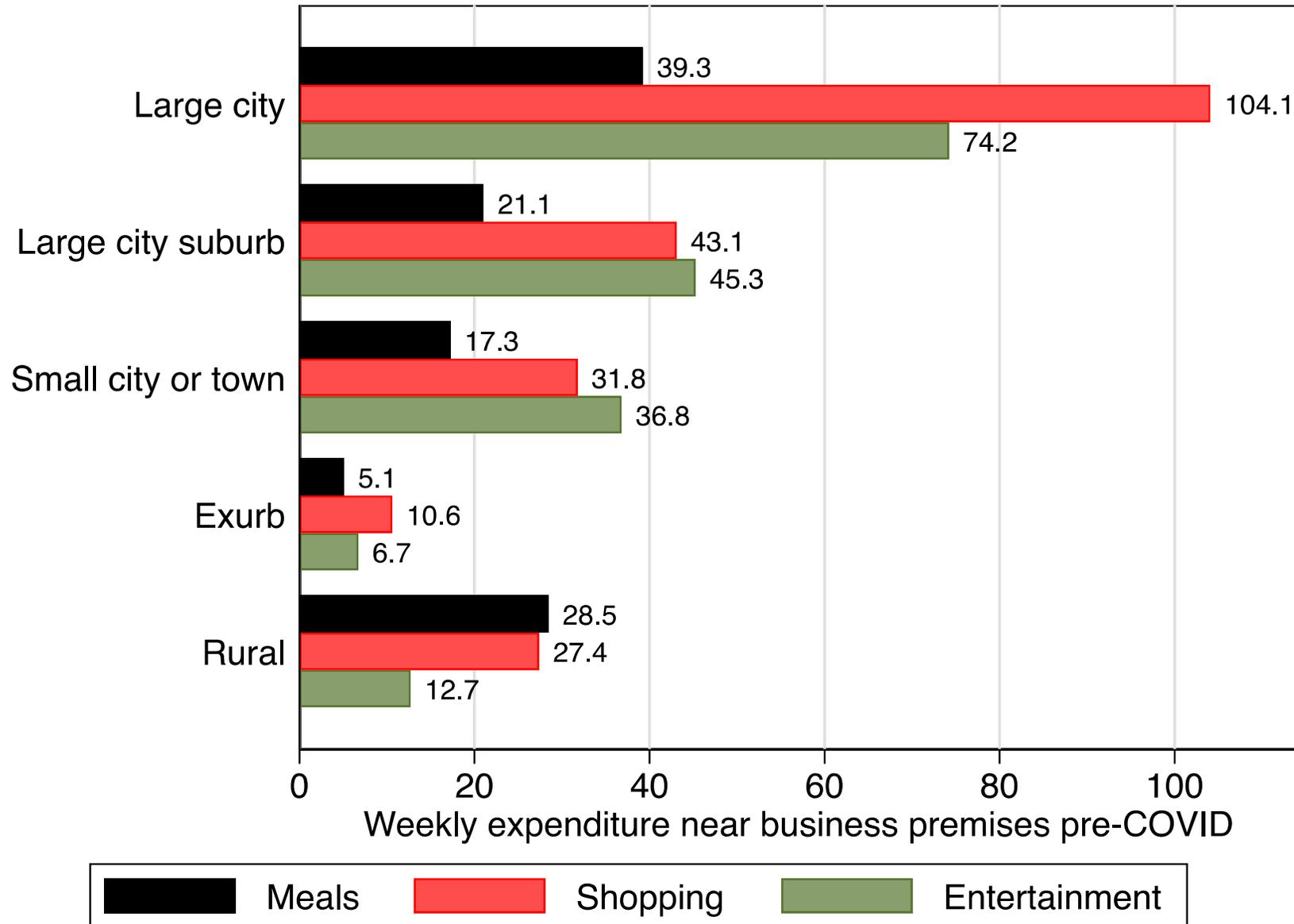
Shares shown weighted by earnings and unweighted (share of workers)

COVID WFH employees heavily drawn from city offices



Source: Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between May 21-25 2020, by QuestionPro on behalf of Stanford University. Sample reweighted to match the Current Population Survey.

These WFH employees used to spend heavily near workplaces



Source: Calculated from the answer to three questions: (i) “In 2019, when you worked at your employer’s business premises, roughly how much money did you spend during a typical day on food and drinks (e.g., lunch, coffee, snacks, etc)?”; (ii) “In 2019, when you worked at your employer’s business premises, roughly how much money did you spend in a typical week on shopping near work (e.g., gift or clothes shopping during your lunch break or after work)?” and (iii) “In 2019, when you worked at your employer’s business premises, roughly how much money did you spend in a typical week in bars, restaurants and other entertainment venues that are near to your workplace?”

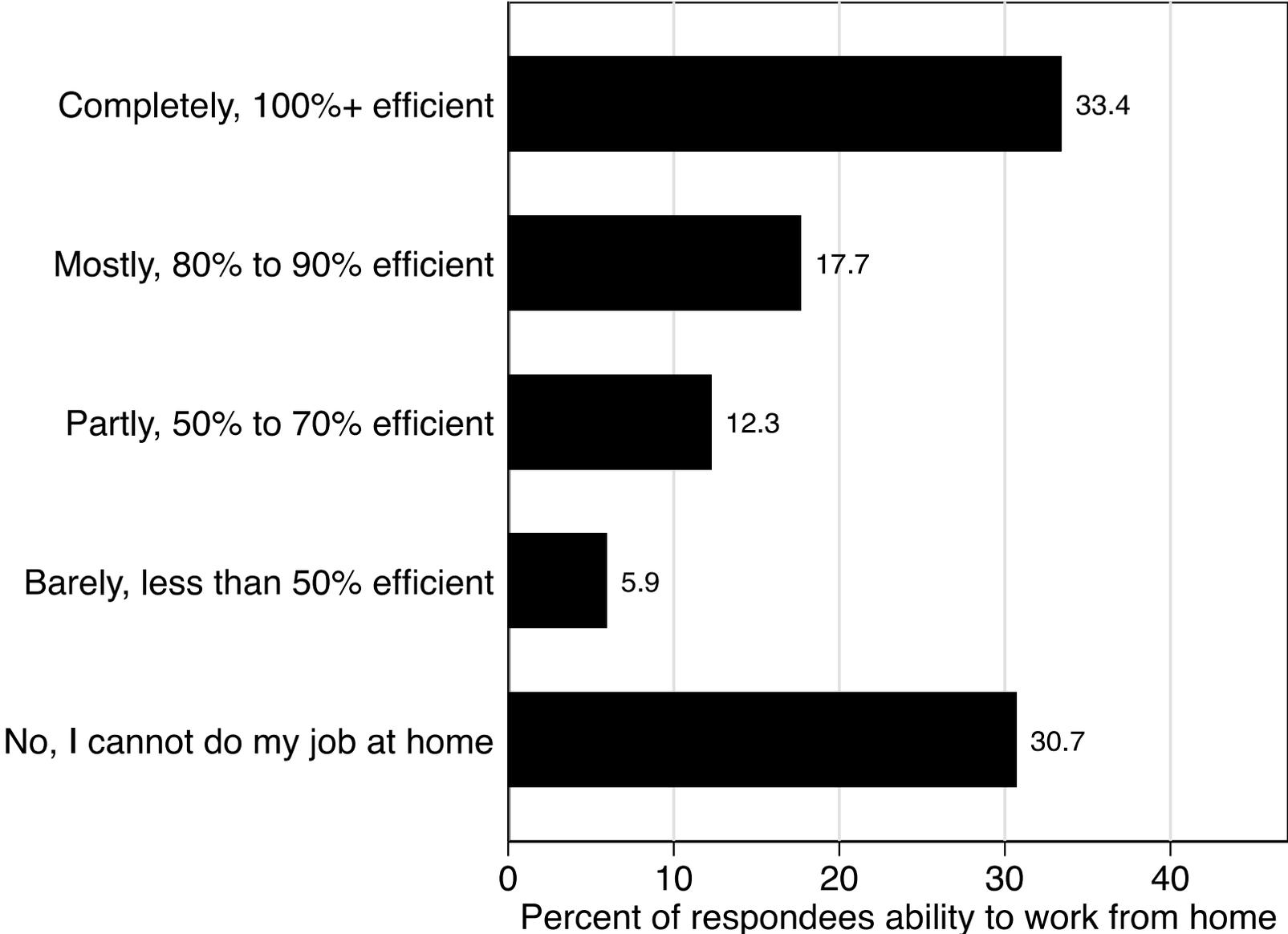
Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between Jun 28-July 3, by QuestionPro on behalf of Stanford University. Sample reweighted to match the Current Population Survey.

Note working from home under COVID is hard for four reasons

1) Kids



2) Job match – only a third of jobs can fully work from home



Source: Response to the question “Could you do your job working from home?” Response options were “Completely, I would be 100%+ as efficient at home as at work “, “Mostly, I would be 80% to 90% as efficient at home as at work “, “Partly, I would be 50% to 70% as efficient at home as at work “, “Barely, I would be less than 50% as efficient at home as at work “, “No, I could not perform my job at home “

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between May 21-25 2020, by QuestionPro on behalf of Stanford University. Sample reweighted to match the Current Population Survey.

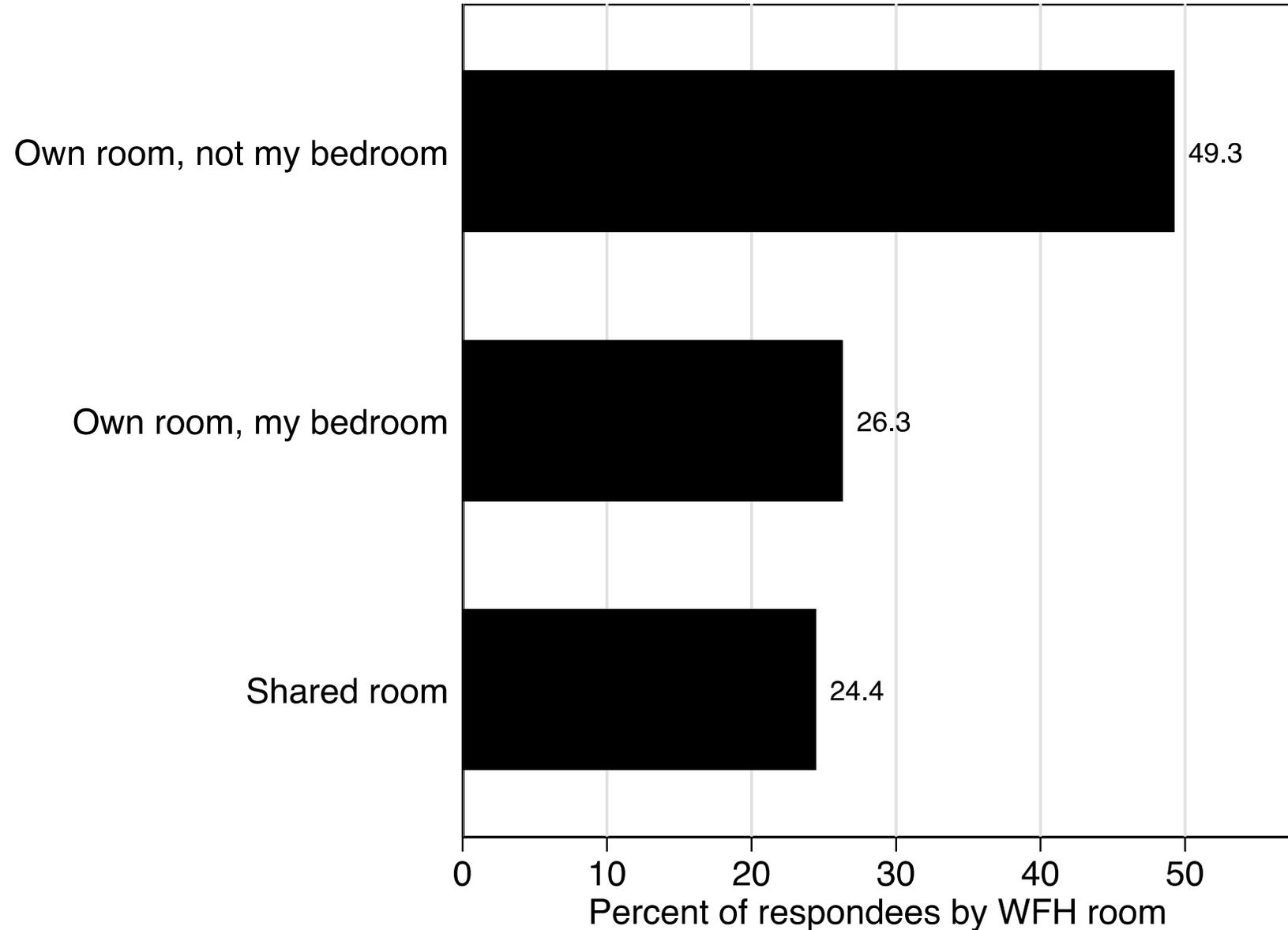
See also “How many jobs can be done at home” Dingel and Nieman (2020), Covid Journal of Economics <https://cepr.org/sites/default/files/news/CovidEcon1%20final.pdf>,

3) Space



If you have any photos to share of WFH challenges please send them to me at nbloom@stanford.edu thanks

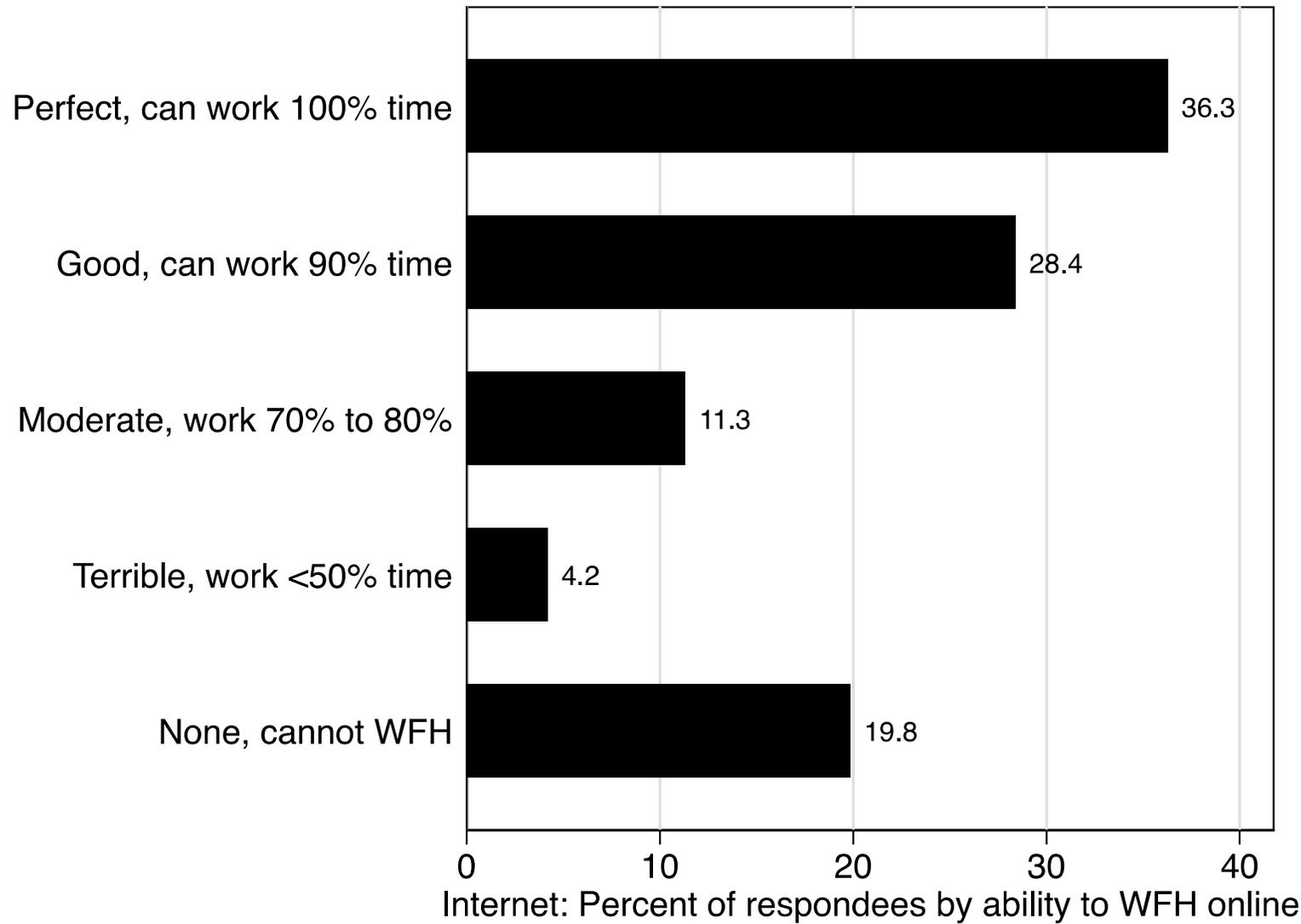
Only 49% of Americans have their own room which is not their bedroom



Source: Response to the questions: "If you are working from home under COVID do you have your own room to work in?"

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between May 21-25 2020, by QuestionPro on behalf of Stanford University. Sample reweighted to match the Current Population Survey.

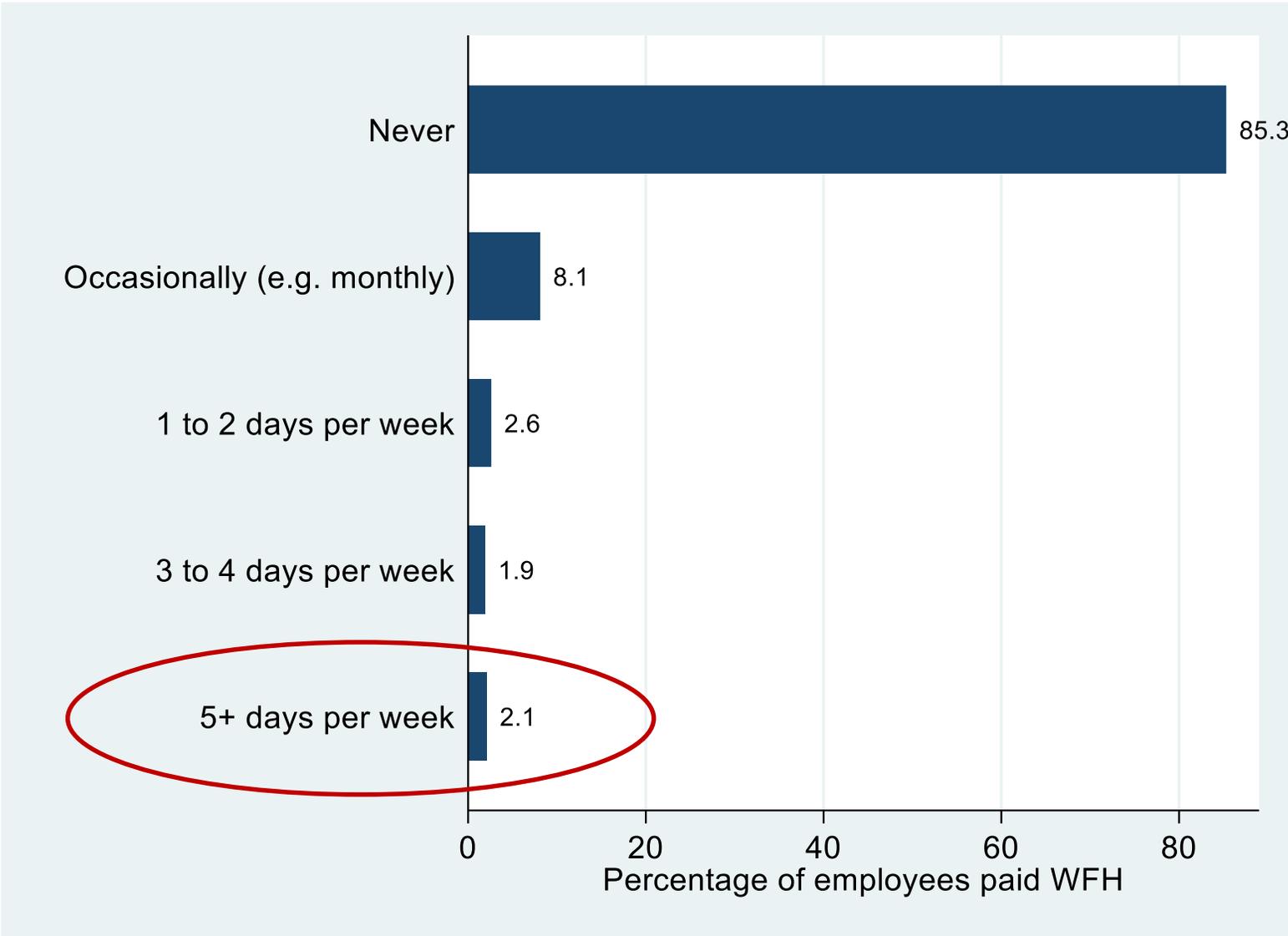
And many have internet issues - so that 35% of Americans cannot effectively WFH (they have <90% connectivity so cannot video call)



Source: Response to the questions: "Internet: how effectively could you work from home online given your current internet connection?"

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between May 21-25 2020, by QuestionPro on behalf of Stanford University. Sample reweighted to match the Current Population Survey.

4) Full-time – pre-COVID only 2% of WFH people were full time



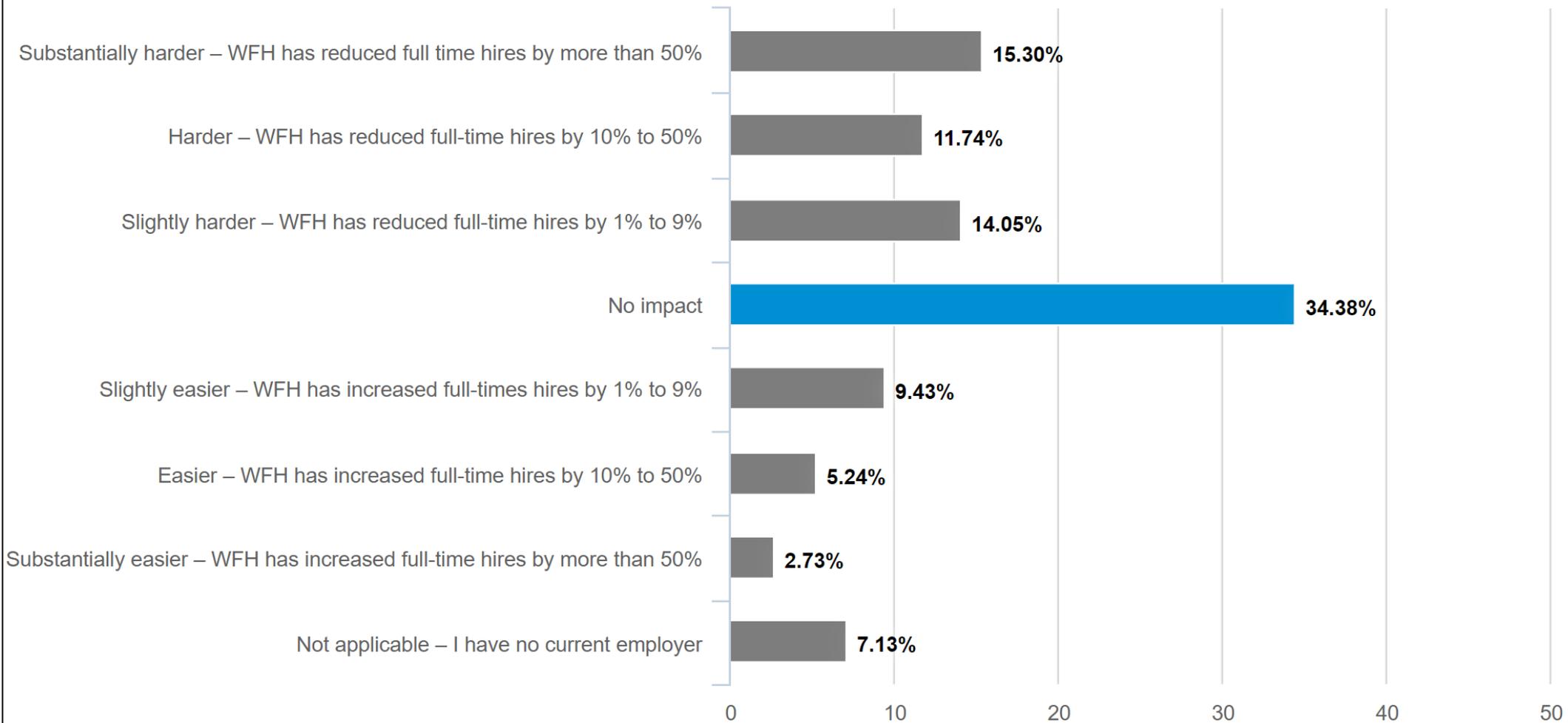
Why? Office time important for

- 1) Creativity
- 2) Motivation
- 3) Loyalty

Source: BLS data <https://www.bls.gov/news.release/flex2.htm>

Working from home also a challenge for firms trying to hire

What impact has working from home had on the number of new full-time hires in your employer's business?



Source: Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between Jun 28-July 3, by QuestionPro on behalf of Stanford University. Sample reweighted to match current CPS.

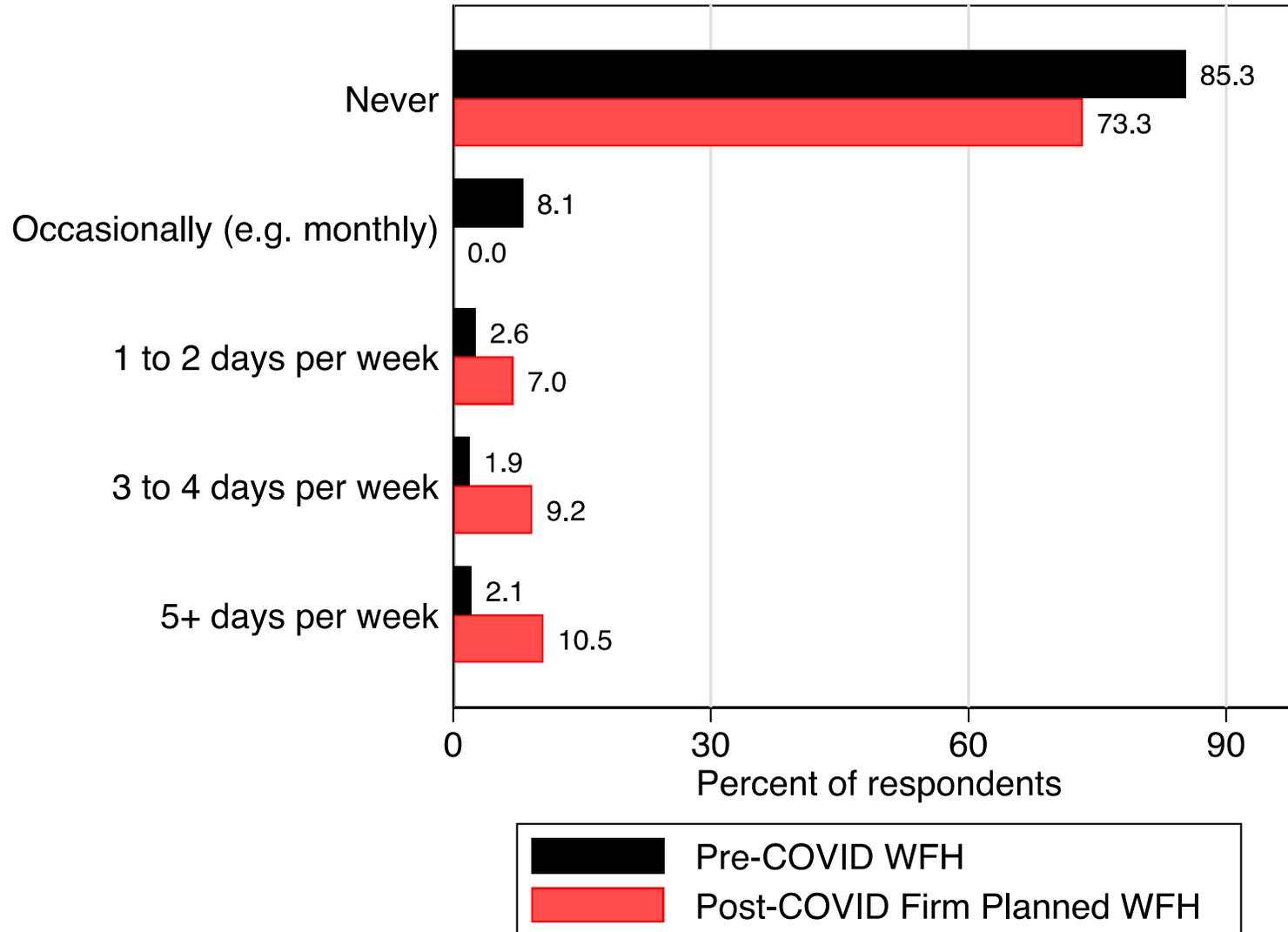
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Post-COVID US firms forecast WFH at about 20% of days (compared to 5% pre-COVID and 40% during COVID)

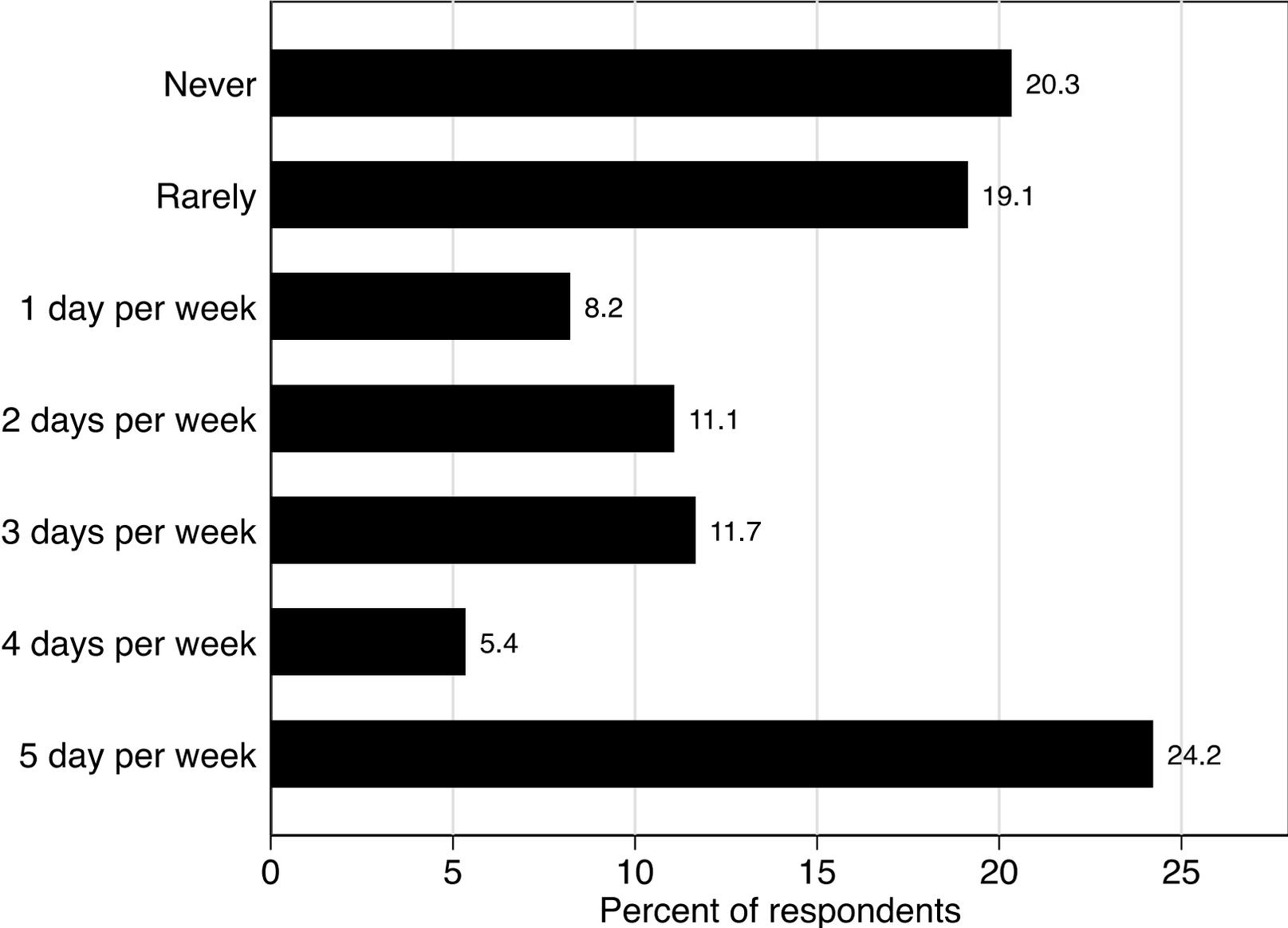


Source: Consumers: Current Working From Home Status response to the question “*In 2019 (before COVID) how often did you have a paid day working from home?*”. Desired Working from Home Status response to the question “*In 2021+ (after COVID) how often would you like to have paid work days at home?*” Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between May 21-25, by QuestionPro on behalf of Stanford University. Sample reweighted to match the Current Population Survey.

Firms: Survey of Business Uncertainty from the Atlanta Federal Reserve Bank, Chicago University and Stanford University. Panel of around 1000 firms. See <https://www.frbatlanta.org/blogs/macroblog>

Headline figures of 5% and 40% of days WFH comes from adding up shares per option times the share of days working from home in each option (e.g. 6%=2.1% of 100% plus 4.5% of 70 plus 3.4% of 30% plus 4.7% of 1/22)

Employees that can WFH – on average – also want about 50% WFH

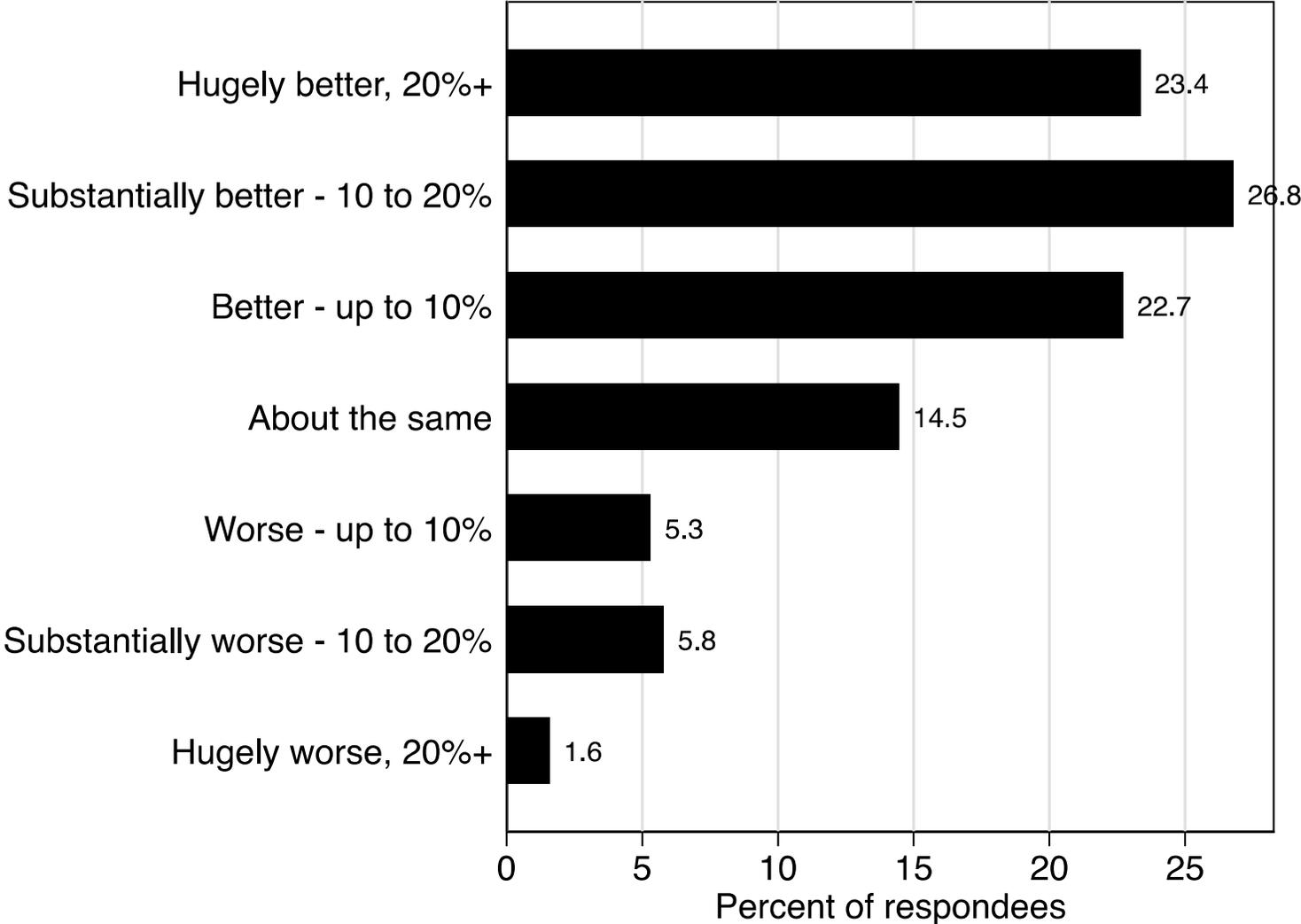


Source: Response to the question: “After COVID, in 2021 and later, how often would you like to have paid workdays at home?”

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between June 28 - July 3 by QuestionPro on behalf of Stanford University. Sample reweighted to match the Current Population Survey

Four factors driving this permanent post-COVID WFH shift

1) Expectations: >70% report WFH has mostly turned out better than predicted



Source: Response to the questions “Compared to your expectations before COVID (in 2019), how has working from home turned out for you?”. Response options are, for example, “Hugely better – I am 20%+ more productive than I expected” and “Substantially better – I am 10% to 19% more productive than I expected”

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between Jun 28-July 3, by QuestionPro on behalf of Stanford University. Sample reweighted to match current CPS.

Four factors driving this permanent post-COVID WFH shift

2) Stigma: pre-COVID negative stigma seems to have fallen away

bing

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working from home



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A 2017 image search on “Working from Home”
source <https://www.youtube.com/watch?v=oiUyyZPIHyY>

Four factors driving this permanent post-COVID WFH shift

2) Stigma: pre-COVID negative stigma seems to have fallen away

'WORK FROM HOME!!!! EARN THOUSANDS OF DOLLARS MONTHLY!'



Fifth Harmony
From Wikipedia, the free encyclopedia

This article is about the song. For the work arrangement, see *Telecommuting*.

Work from Home (song)
From Wikipedia, the free encyclopedia

"Work from Home"
Single by Fifth Harmony featuring Ty Dolla \$ign

Released February 26, 2016
Format Digital download · streaming
Recorded 2015
Studio Various (show)
Genre Pop · R&B^[1]

Contents [hide]

- Background and release
- Composition and lyrical interpretation
- Critical reception

The song impacted contemporary hit radio four days after its initial release on March 1, 2016 and was released as the lead single from the group's second studio album, *7/27* (2016).^[3] "Work from Home" was written by Daniel Bedingfield, Joshua Coleman, Dallas Koehlke, Jude Demorest, Tyrone Griffin, Jr., Alexander Izquierdo, and Brian Lee^{[4][9][6]} with production from Coleman and Dallas Koehlke. The song is primarily an R&B track that incorporates elements of trap music and tropical house beats with lyrics depicting "work" as a euphemism for sex. Many music publications included it in their lists of best songs of the year.^{[7][9][9][10]}

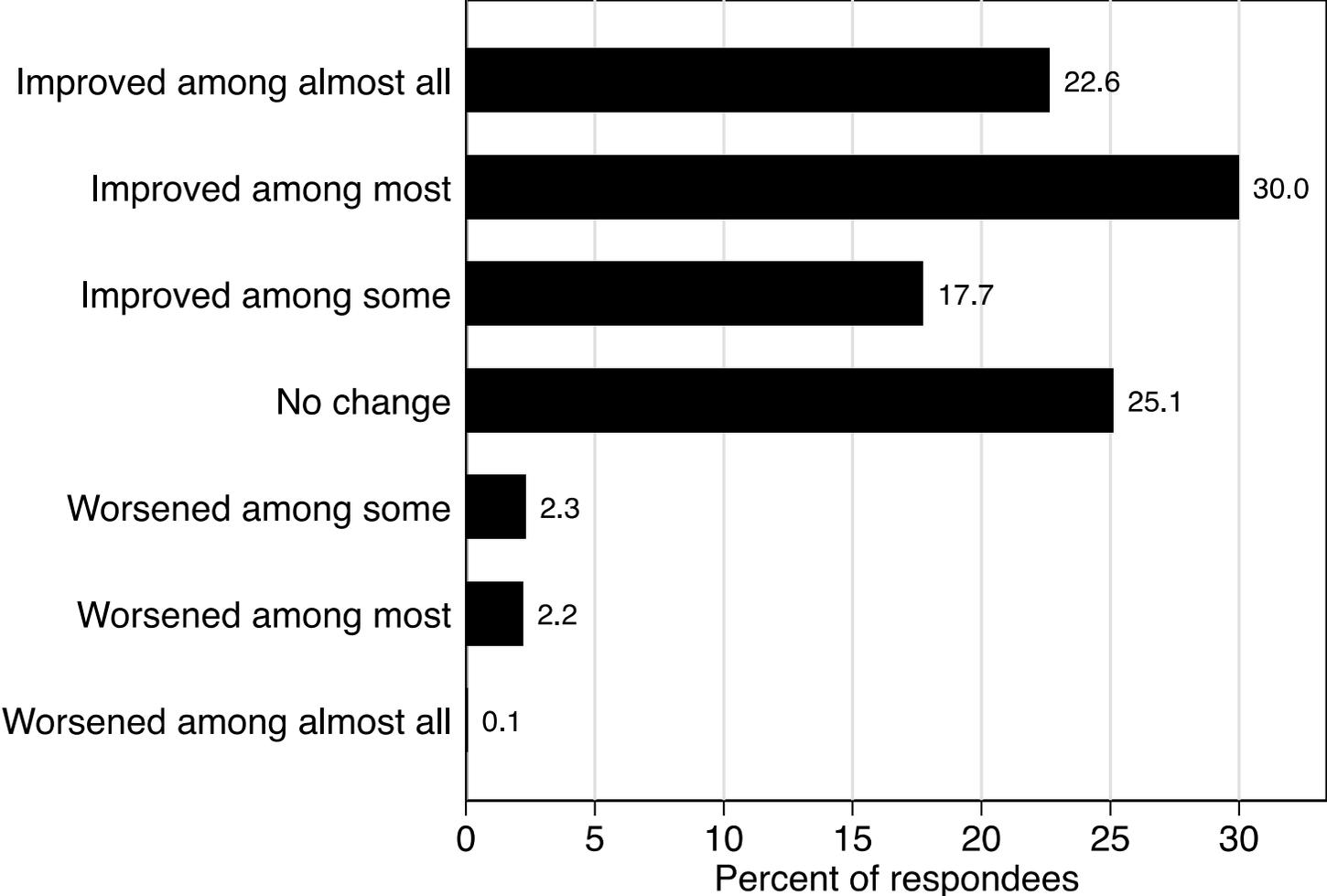
The song debuted at number 12 on the *Billboard* Hot 100,^[11] and reached number four in its thirteenth week,^[12] becoming their highest charting single in the United States; it surpassed "Worth It", which peaked at number 12. "Work from Home" also became the first top-five single in the country by a girl group in ten years, following the September 2006 peak of "Buttons" by The Pussycat Dolls at number three.^[13] Among national airplay charts, the song topped both the *Mainstream Top 40* and *Rhythmic Songs*.^{[14][15]} As of December 2016, the single has sold 1.4 million digital downloads in the United States.^[16] The song has achieved multi-platinum certifications in several countries, including quintuple platinum in Canada and the United States.

It was accompanied by a music video directed by *Director X* and filmed in a construction site of a house. It was released on February 26, 2016 on the group's Vevo channel. The video received commentary from critics over the double entendres in the visuals, which are present in the lyrics as well. The girls are seen interacting with male construction workers and performing choreographed dance routines dressed in construction gear. "Work from Home" won the award for Best Collaboration at the 2016 MTV Video Music Awards and the American Music Awards, winning the group their first award in this network.^[17] Its music video reached one billion views in October 2016 and became the most viewed music video of 2016.^[18] By January 2019, it had reached two billion views.

Four factors driving this permanent post-COVID WFH shift

2) Stigma: 70% report pre-COVID negative stigma seems to have fallen away

Change in WFH Perceptions Among People You Know

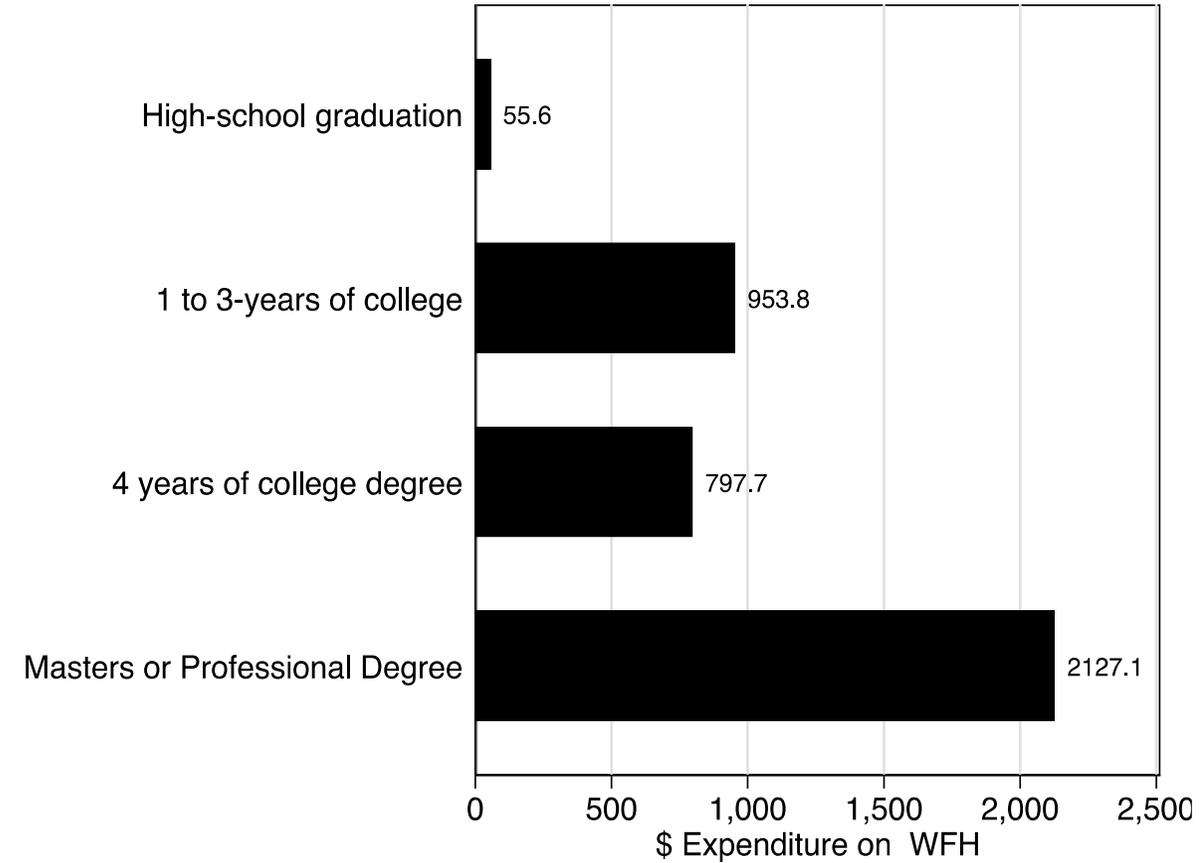
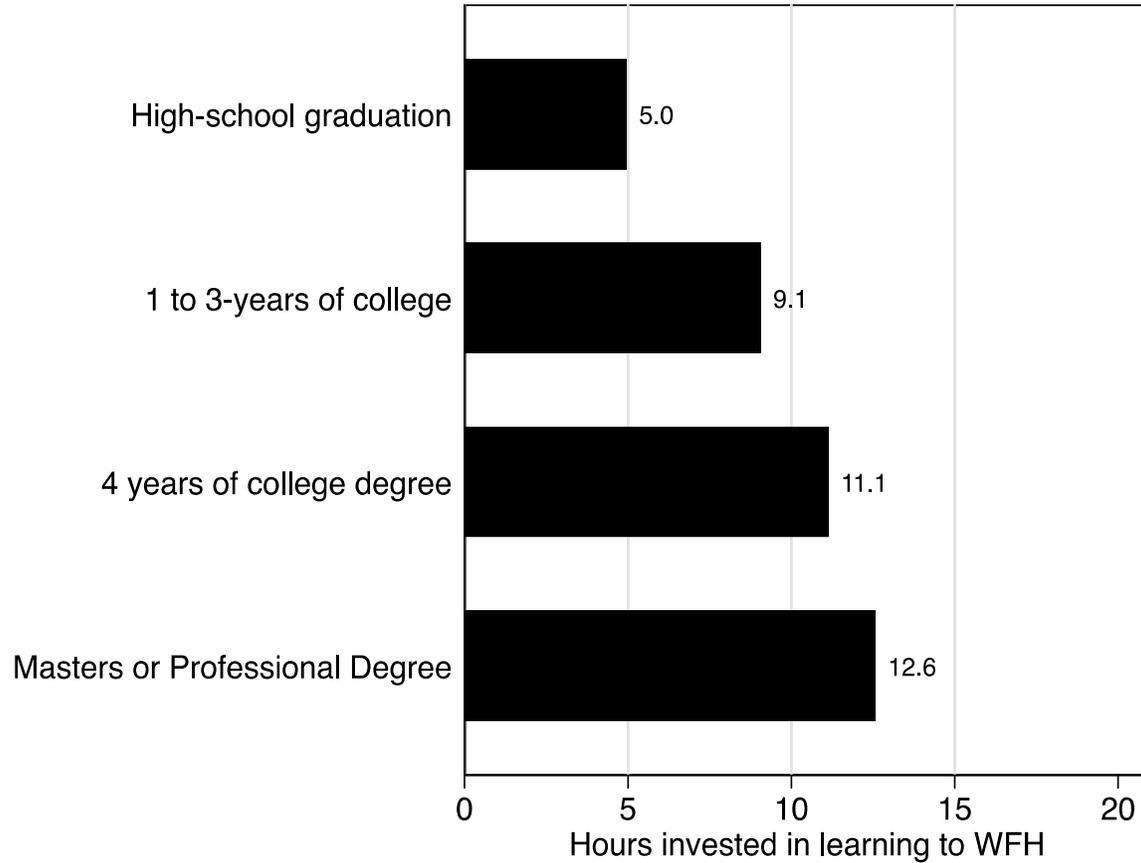


Source: Response to the questions “Before COVID-19, “working from home” was sometimes seen as “shirking from home.” Since the COVID pandemic began, how have perceptions about working from home (WFH) changed among people you know?”

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between Jun 28-July 3, by QuestionPro on behalf of Stanford University. Sample reweighted to match current CPS.

Four factors driving this permanent post-COVID WFH shift

3) Investments: substantial time and capital investments in WFH (plus R&D etc)

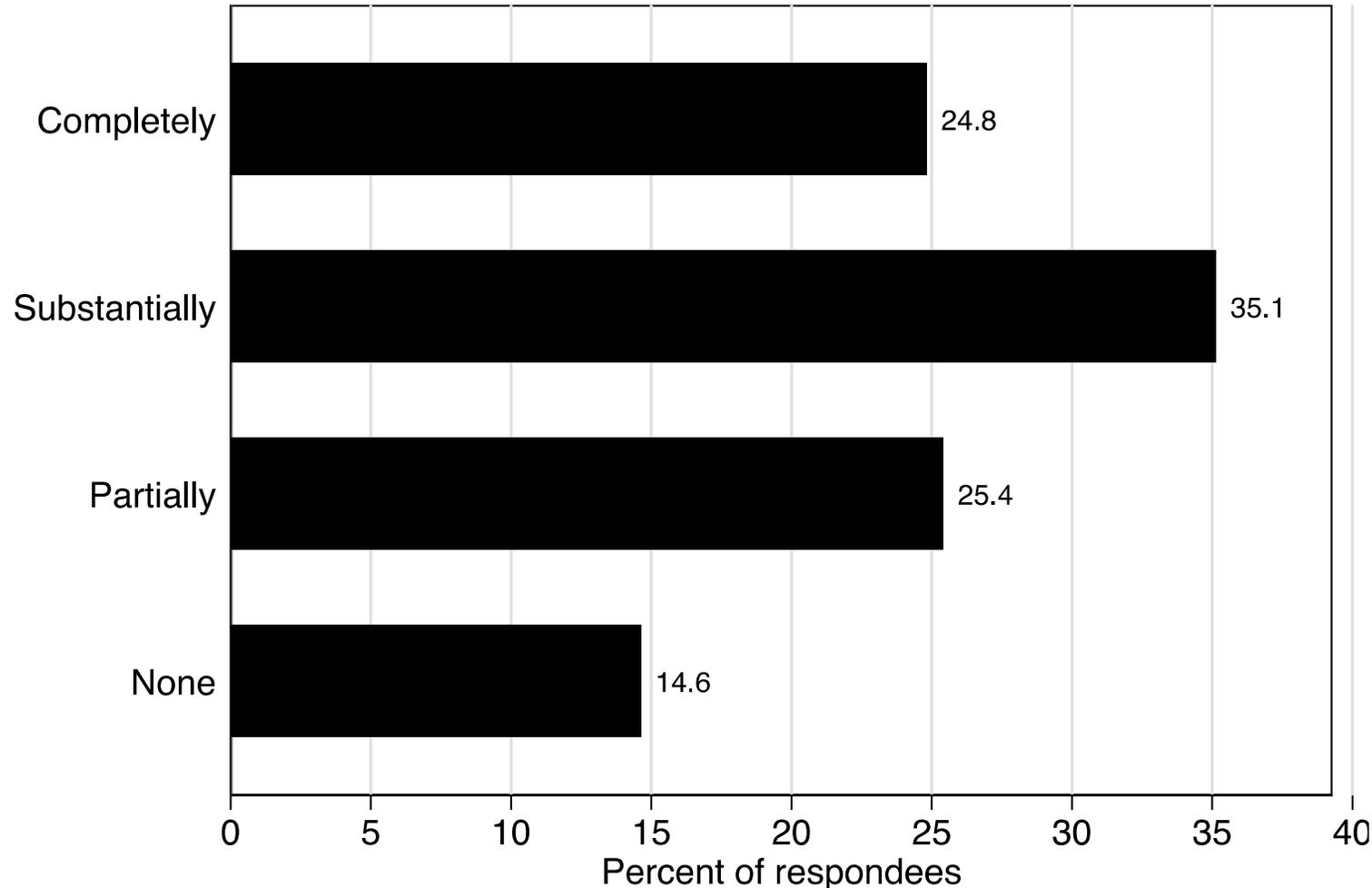


Source: Response to the questions “How many hours have you invested in learning how to work from home effectively (e.g., learning how to use video-conferencing software) and creating a suitable space to work?” and “How much money have you and your employer invested in equipment or infrastructure to help you work from home more efficiently – computers, internet connection, furniture, etc.?”. Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between Jun 28-July 3, by QuestionPro on behalf of Stanford University. Sample reweighted to match current CPS.

Four factors driving this permanent post-COVID WFH shift

4) Social distancing: our survey data suggests norms will not fully revert

Would return to pre-COVID activities



Source: Response to the questions “If a COVID vaccine is discovered and made widely available, which of the following would best fit your views on social distancing?”. Response options are: “Complete return to pre-COVID activities“; “Substantial return to pre-COVID activities, but I would still be wary of things like riding the subway or getting into a crowded elevator“; “Partial return to pre-COVID activities, but I would be wary of many activities like eating out or using ride-share taxis” and “No return to pre-COVID activities, as I will continue to social distance”

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between Jun 28-July 3, by QuestionPro on behalf of Stanford University. Sample reweighted to match current CPS.

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Working From Home During COVID

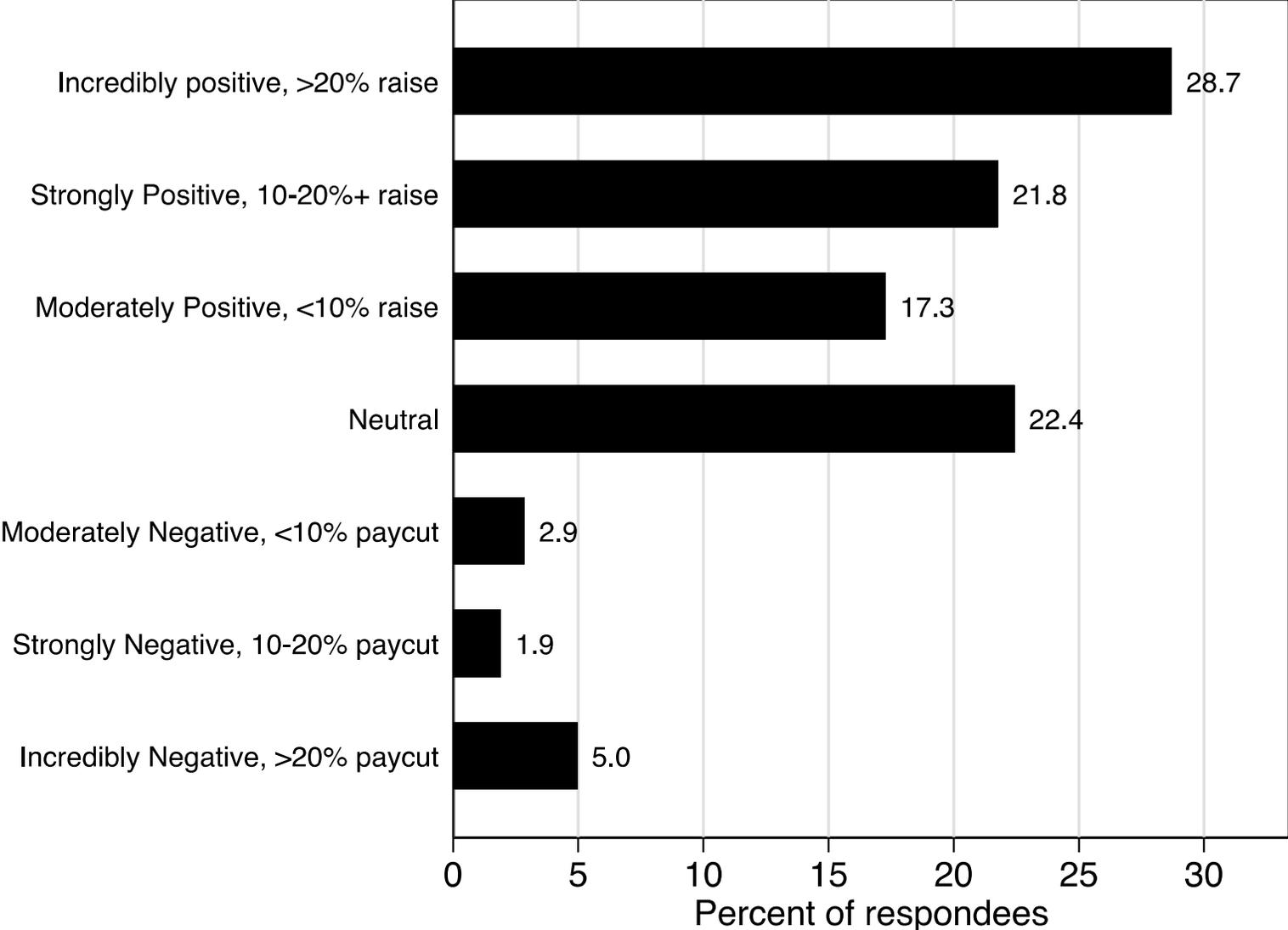
Working From Home Post COVID

Tips on Working From Home

Three key tips of WFH post COVID

- 1) **Part-time** – regular 2 days per week at home (e.g. T,Th)
- 2) **Optional** – only about 50% of employees want to WFH
- 3) **Privilege** – under-performers warned, recalled to the office

Indeed, the option to WFH 2 to 3 days per week very appealing (equivalent to a 13.2% pay increase on average)



Source: Response to the questions “After COVID, in 2021 and later, how would you feel about the option to work from home 2 or 3 days a week?”. Response options are, for example, “Incredibly positive, as good as a pay rise of more than 20%” and “Strongly positive, as good as a pay rise of 10% to 20%”

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between Jun 28-July 3, by QuestionPro on behalf of Stanford University. Sample reweighted to match current CPS.

COVID will relocate the modern office, not eliminate it

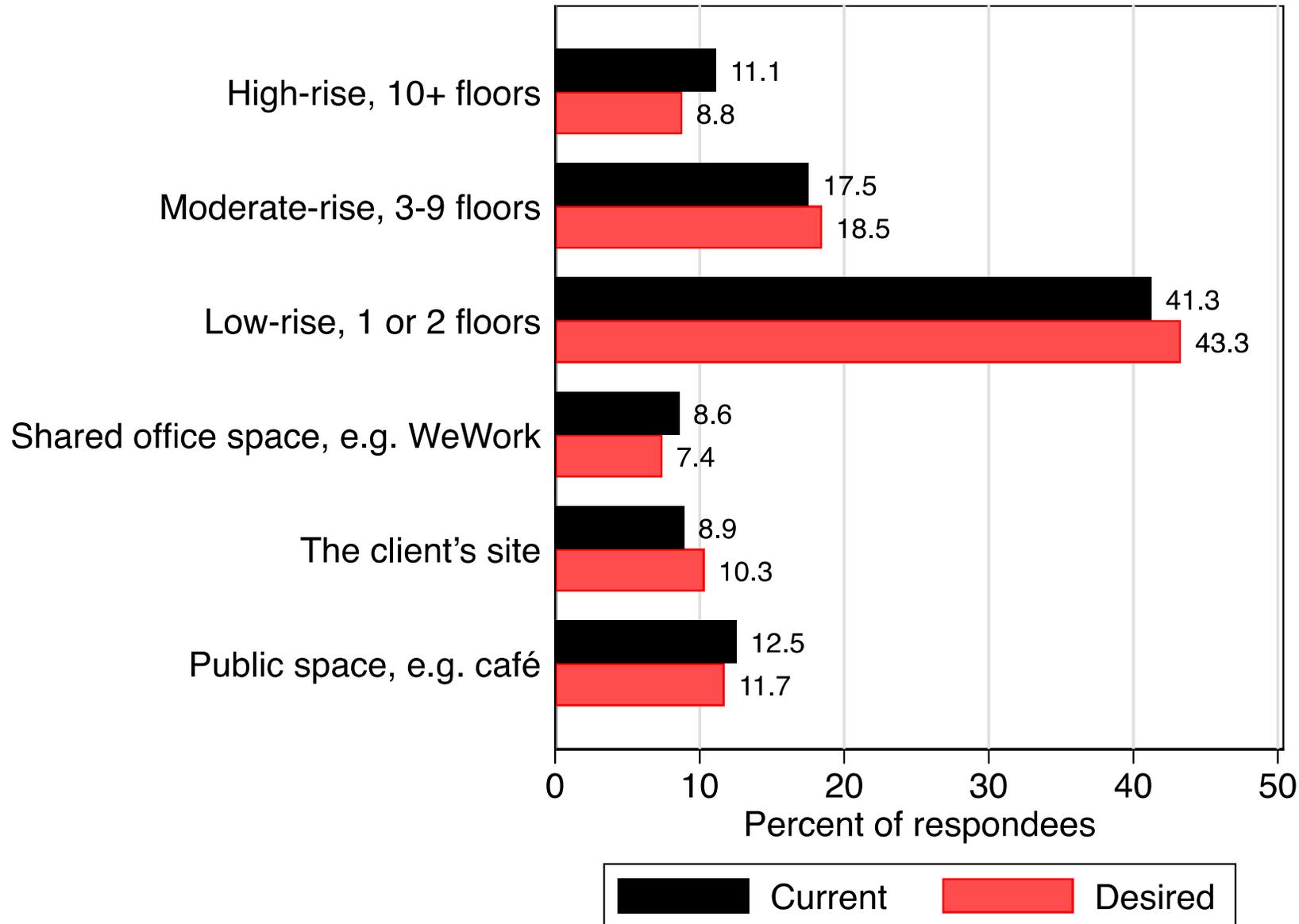
Pre-COVID 5% of working days from home

During COVID 40% of working days at home

Post COVID I predict about 20% of working days at home



Indeed, demand to work in high-rise buildings has dropped 25%



Source: Response to the questions: “In 2019 (before COVID) where did you mostly work (when not at home)?” and “In 2021+ (after COVID) where would you like to mostly work (when not at home)?”

Data from a survey of 2,500 US residents aged 20 to 64, earning more than \$20,000 per year in 2019 carried out between May 21-25, by QuestionPro on behalf of Stanford University. Sample reweighted to match current working from home ratios in the 2017/2018 American Time Use Survey.

Conclusion: long-run (5-year) impacts via WFH (& Social Distancing)

- 1) Cities: Reduction in economic activity and day-time population density in city centers
- 2) Property: Reduction in value of 10+ story buildings, increase in value of office parks
- 3) Commuting: Reduction (particularly for more educated employees)
- 4) Hiring: slow down (particularly for new graduates) due to WFH training challenges
- 5) Inequality: increase if WFH benefits (pay & welfare) accrue more to older-educated

Further Reading References

Blog: "How Working from Home Works Out", Nick Bloom, June 2020

<https://siepr.stanford.edu/research/publications/how-working-home-works-out>

Blog: Working remotely or remotely working? Best practices in working from home post COVID-19, May 2020

<https://www.povertyactionlab.org/blog/5-18-20/working-remotely-or-remotely-working-best-practices-working-home-post-covid-19>

Research paper: Does Working from Home Work?, QJE 2014

<https://nbloom.people.stanford.edu/sites/g/files/sbiybj4746/f/wfh.pdf>

