

# The Future of WFH

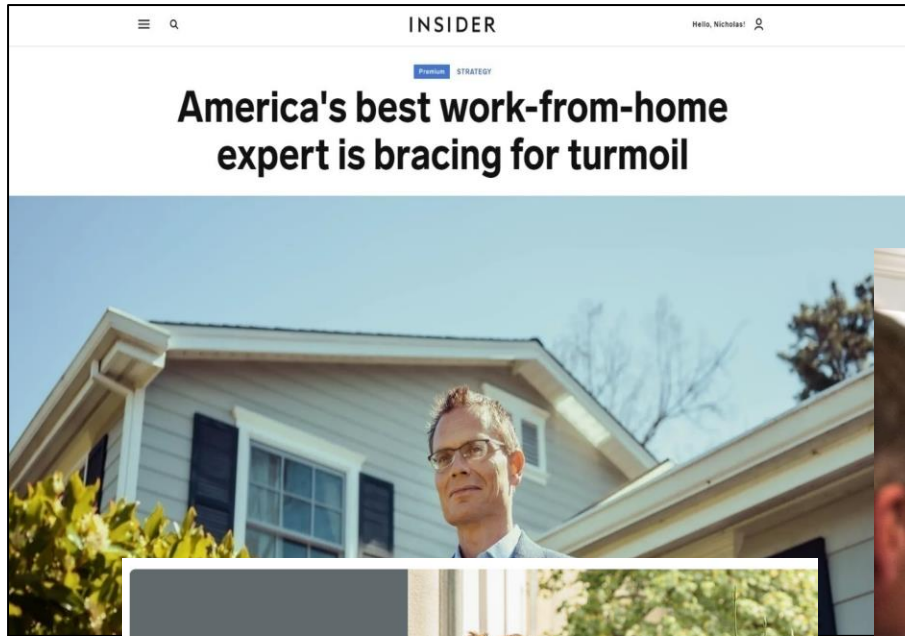
Nick Bloom (Stanford)

February 2023



# Background and Data on Working From Home

- Research on WFH starting in 2004
- Monthly surveys of 10,000 working age adults and 5,000 firms
- Discussions and consulting with 100s of organizations globally



**Bloomberg**  
**50**

**Nicholas Bloom**

- He's emerged as a go-to academic for insight into remote work, meeting this year to share research with more than 100 institutions, including the International Monetary Fund, Wall Street banks and tech startups.

[READ MORE](#)

# Going to cover three sections

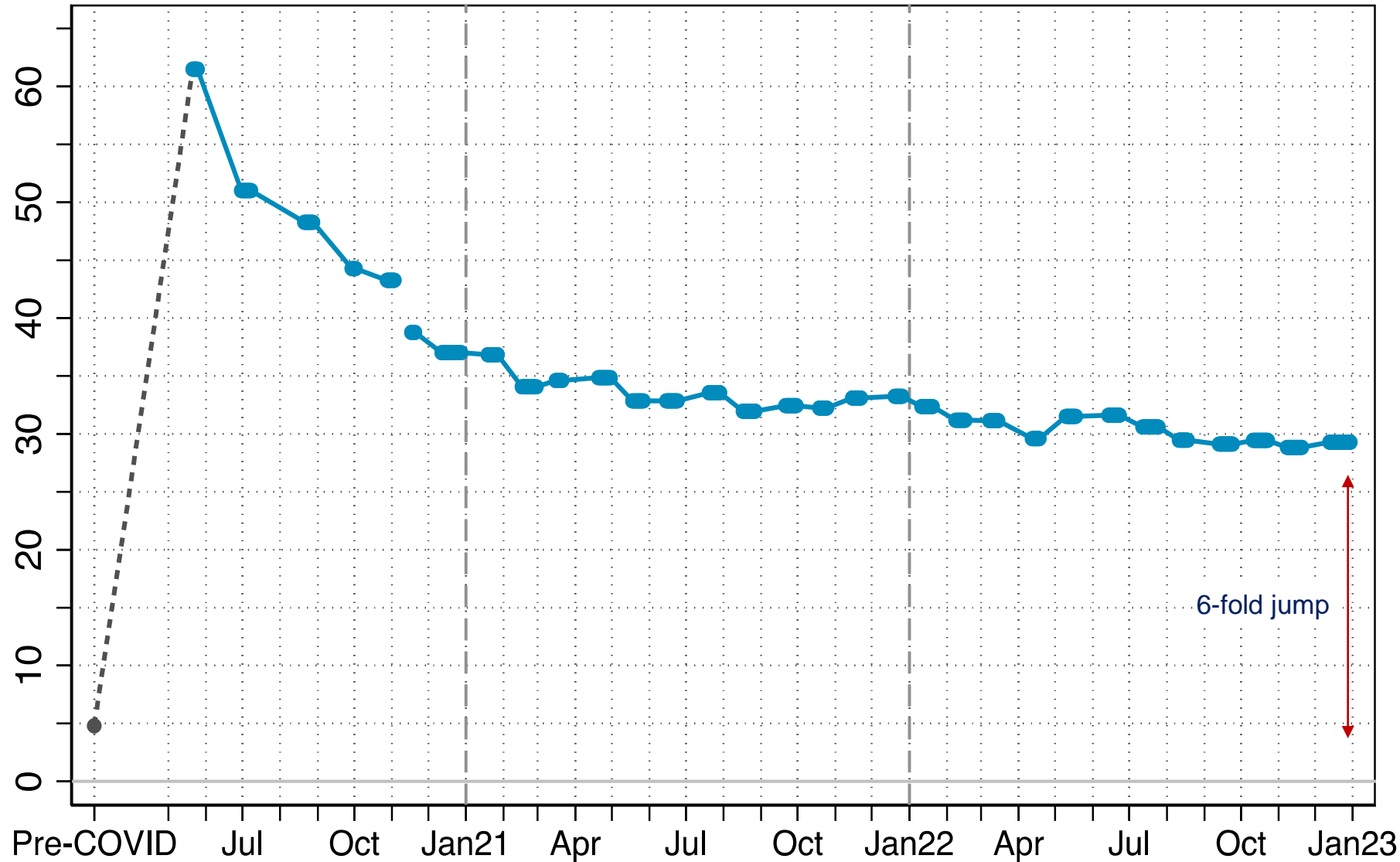
**>>>> Current state of working from home**

**>>>> Thoughts on managing hybrid-WFH**

**>>>> Impact on offices and real-estate**

# WFH is stabilizing at about 30% of days: a 6-fold jump vs 2019

US full days worked from home, %

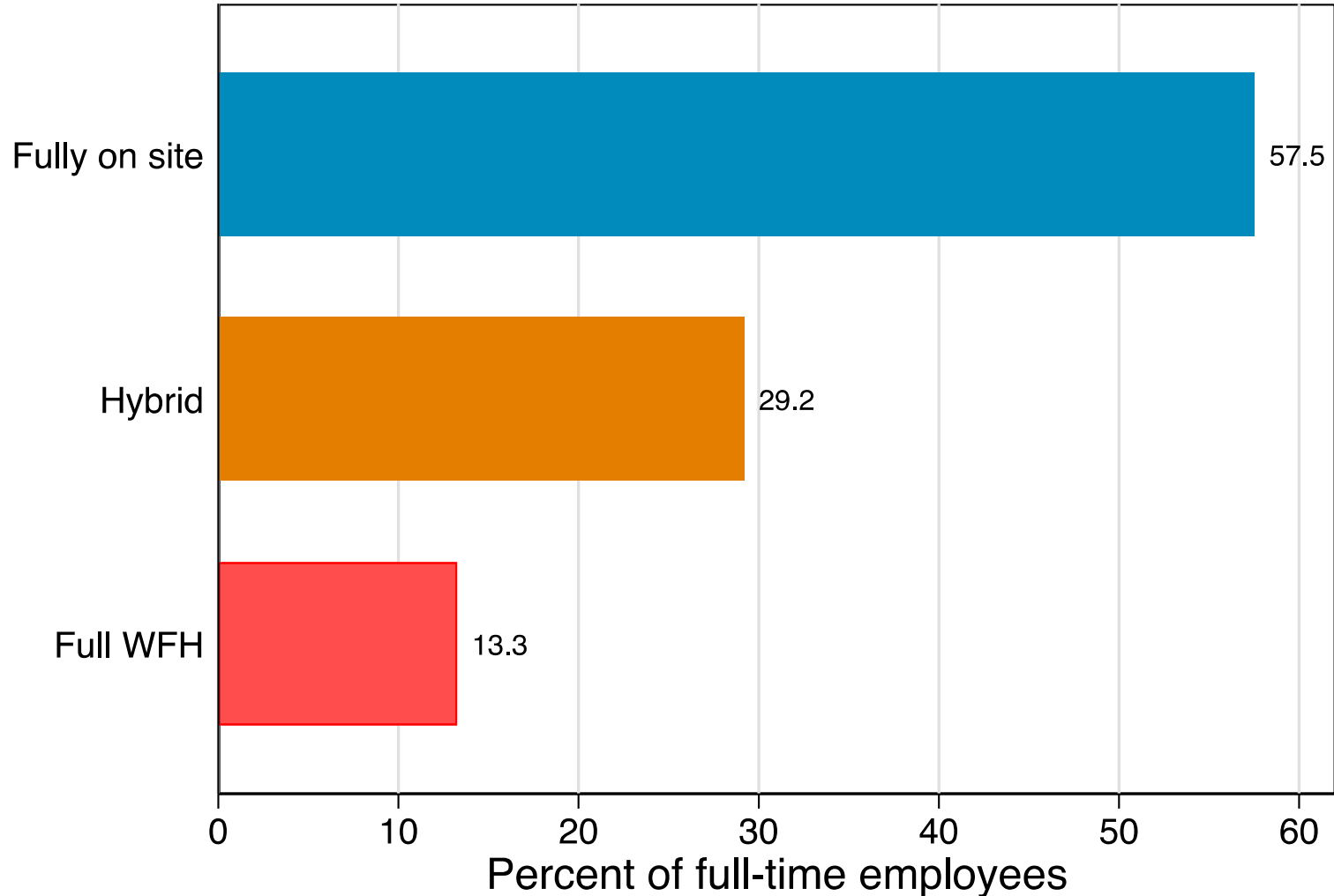


Matches other US WFH indicators like Kastle office occupancy and Google workplace mobility data

**Source:** Data from 108,696 SWAA survey responses weighted to match the US population. Pre-covid data from the American Time Use Survey. Survey of Workplace Attitudes and Arrangements (Barrero, Bloom and Davis 2021) on <https://wfhresearch.com/>

# Employees are split into three groups

Working Arrangements



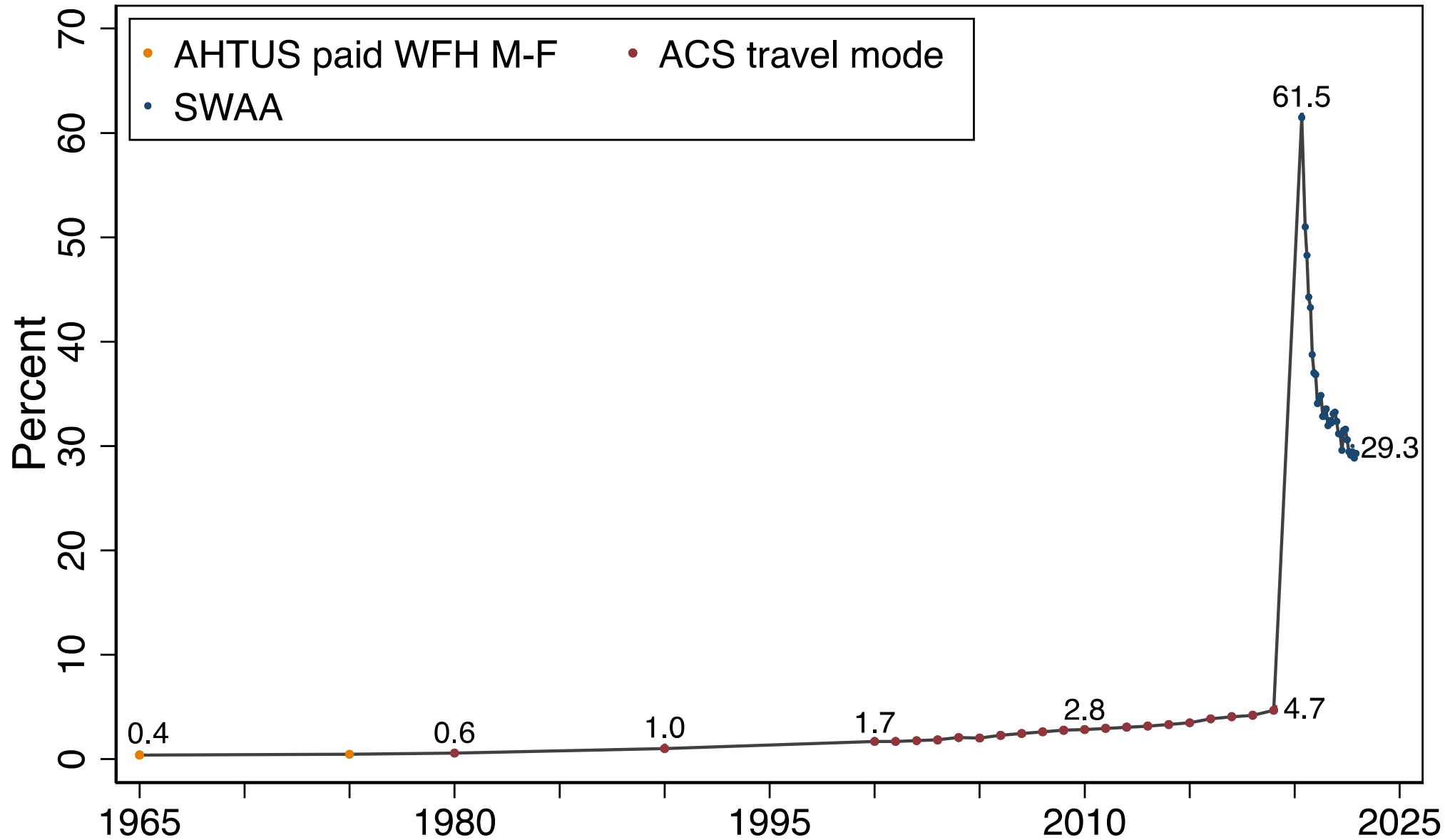
**Front-line employees, mostly non-graduates, lower paid,**

**Professionals and managers, mostly graduates, higher paid**

**Specialized roles - IT support, payroll etc, often contractors**

# The graph back to 1965 shows the size of the pandemic-era WFH jump

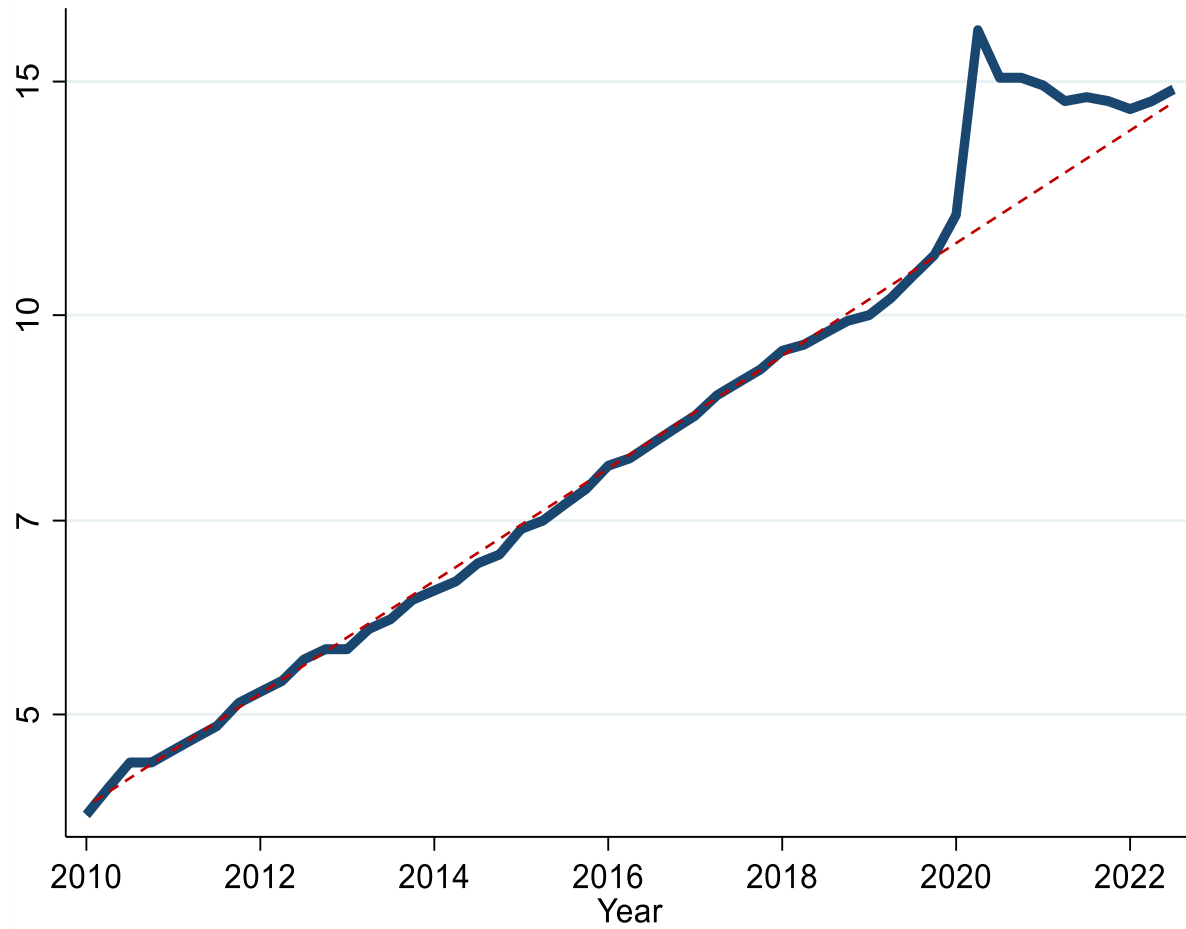
## Historical WFH share



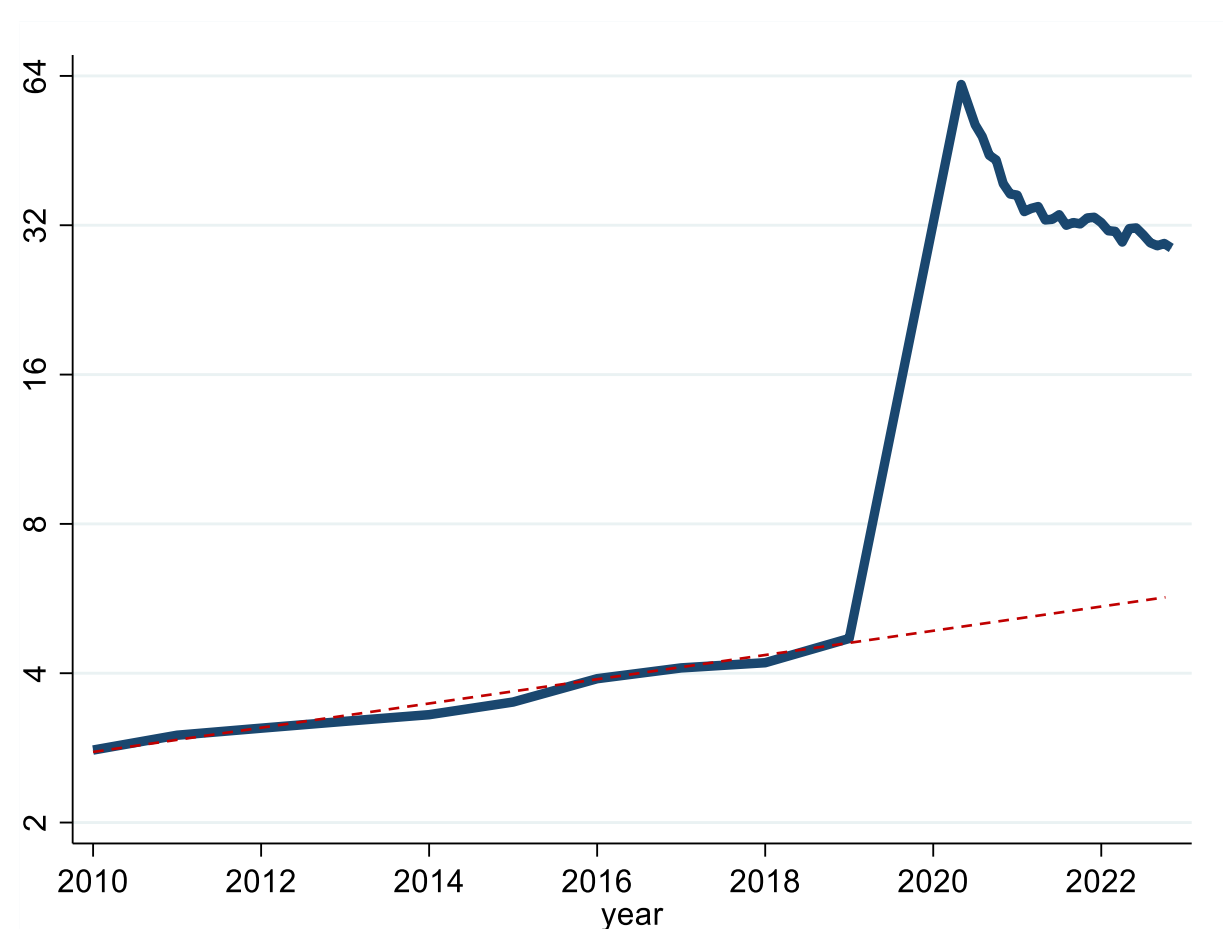
WFH days doubling every 15 years pre-pandemic, so the 6-fold pandemic increase is equal to 40 years of pre-pandemic growth.

# Looks like this rise in WFH will stick - online shopping is back to its pre-trend, but WFH has stabilized at 20% above pre-trend

## Share of retail spending online, %

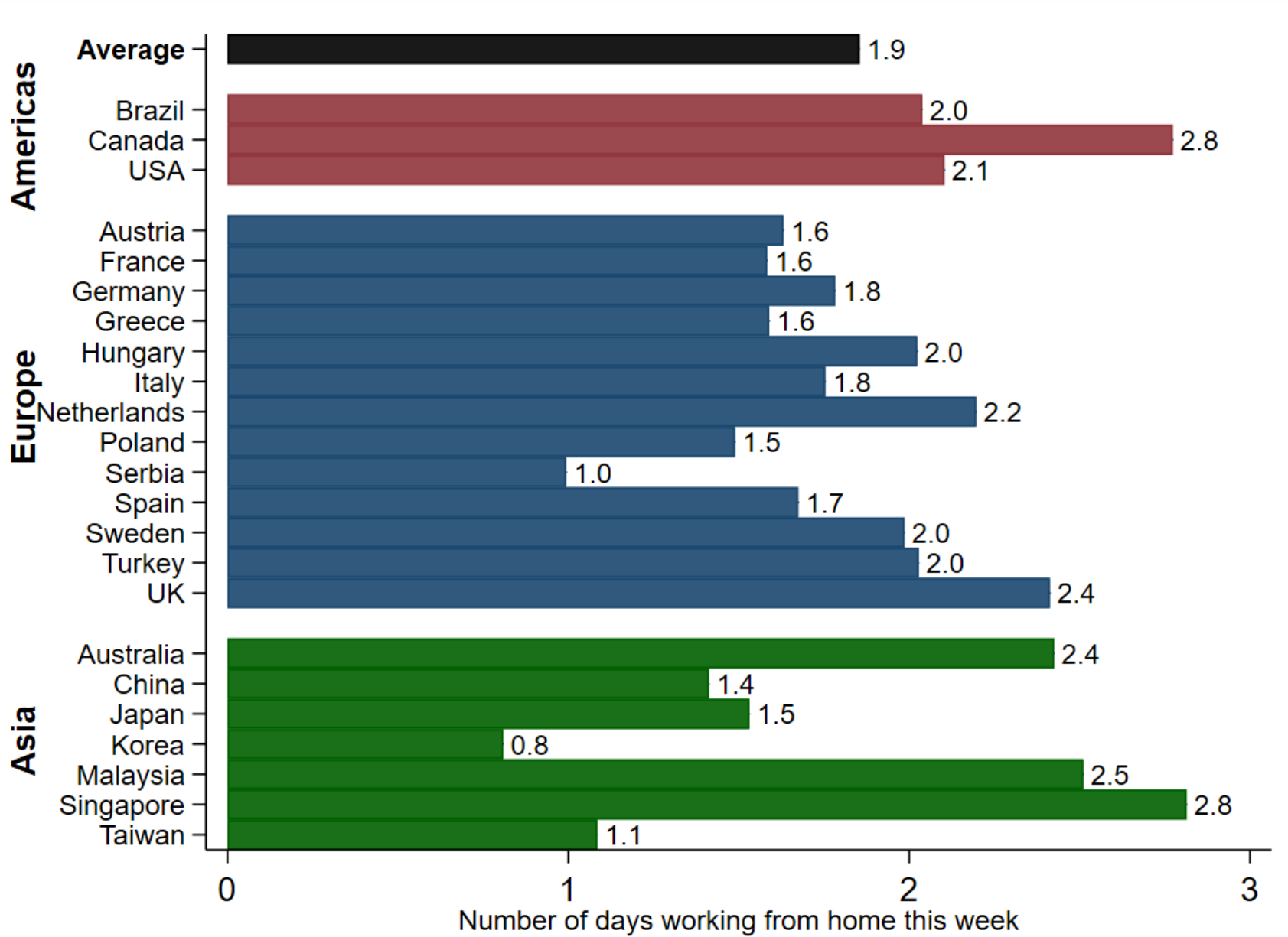


## Share of days worked from home, %



**Source:** Retail data from the Census Bureau, quarterly seasonally adjusted <https://fred.stlouisfed.org/series/ECOMPCTSA>. WFH data from the Survey of Workplace Arrangements and Attitudes [www.wfhresearch.com](http://www.wfhresearch.com) Both data cover the United States.

# Globally similar: for graduates WFH typical 1 or 2 days per week



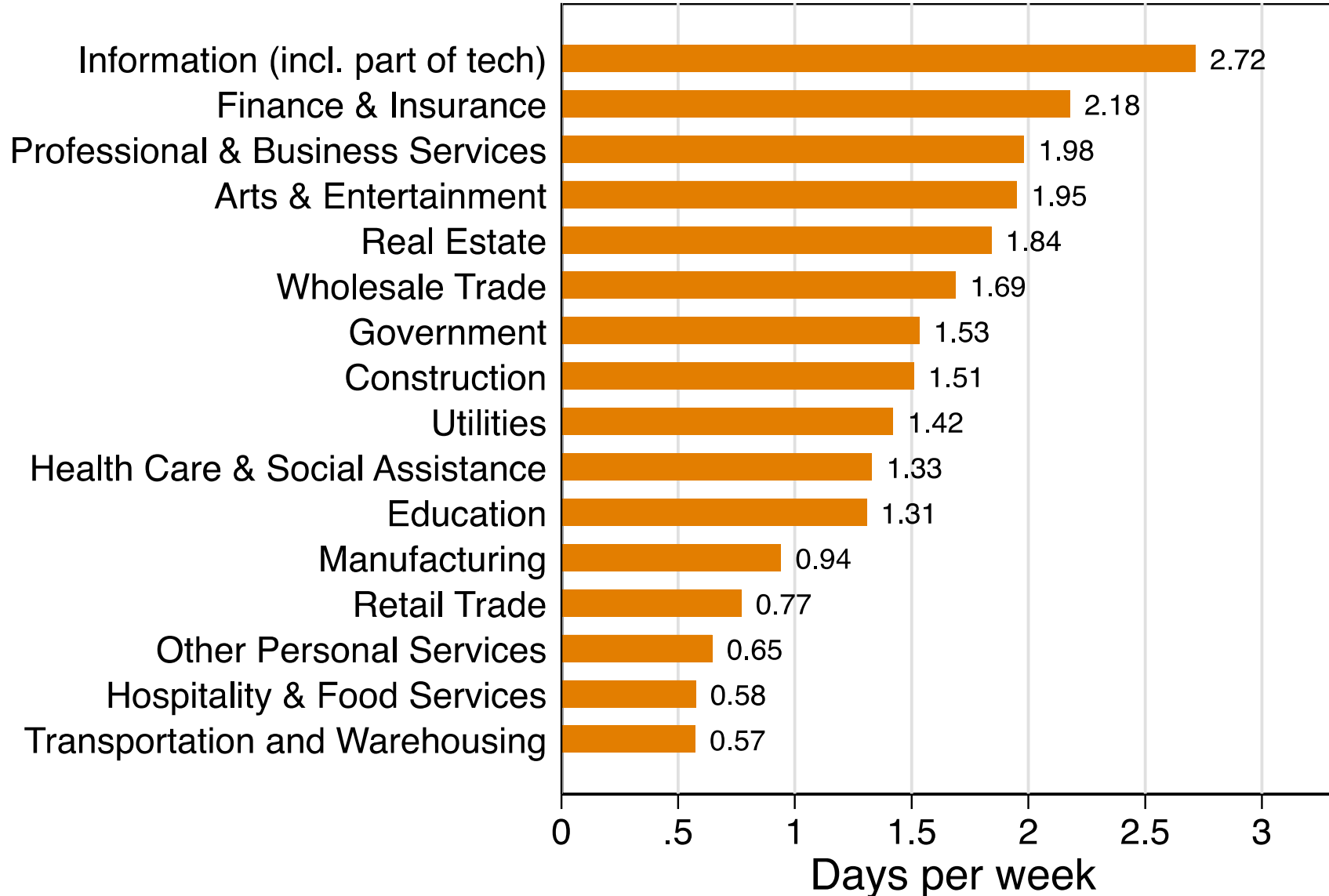
**Source:** Responses to the question “How many full paid days are you working from home this week?”. Only for university educated respondents that have worked for pay in the week of the interview.

Sample of N=30,169 Global WFH respondents, surveyed in August 2021 and February 2022. Source: “Working from home around the world” by Cevat Aksoy, Jose Barrero, Nick Bloom, Steve Davis, Mathias Dolls and Pablo Zarate. <https://wfhresearch.com/gswadata/>



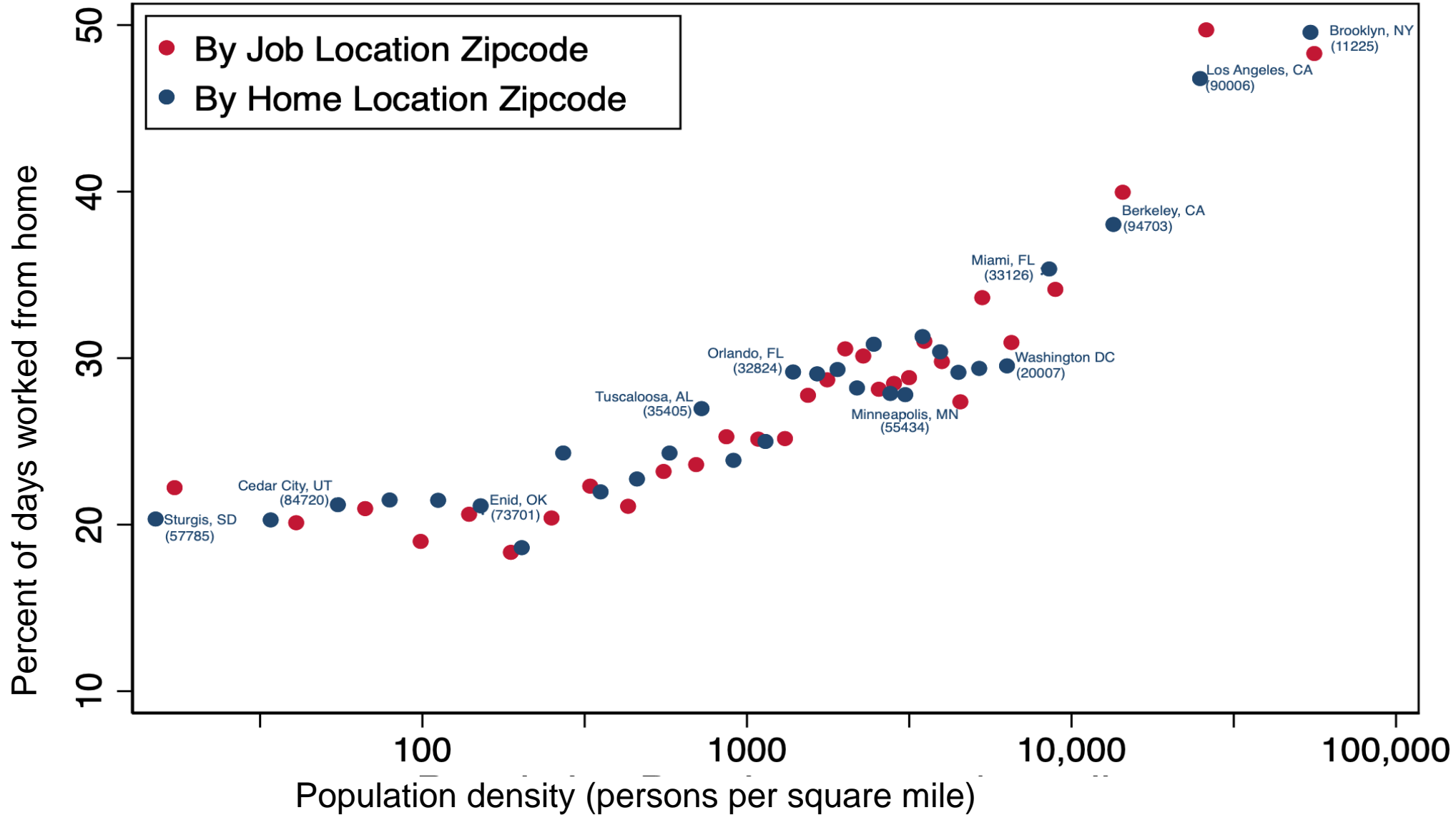
# WFH particularly high in tech

Current WFH: all wage and salary employees by industry



**Notes:** Survey of Workplace Attitudes and Arrangements [www.wfhresearch.com](http://www.wfhresearch.com) Sample N=13,662 from April to July 2022

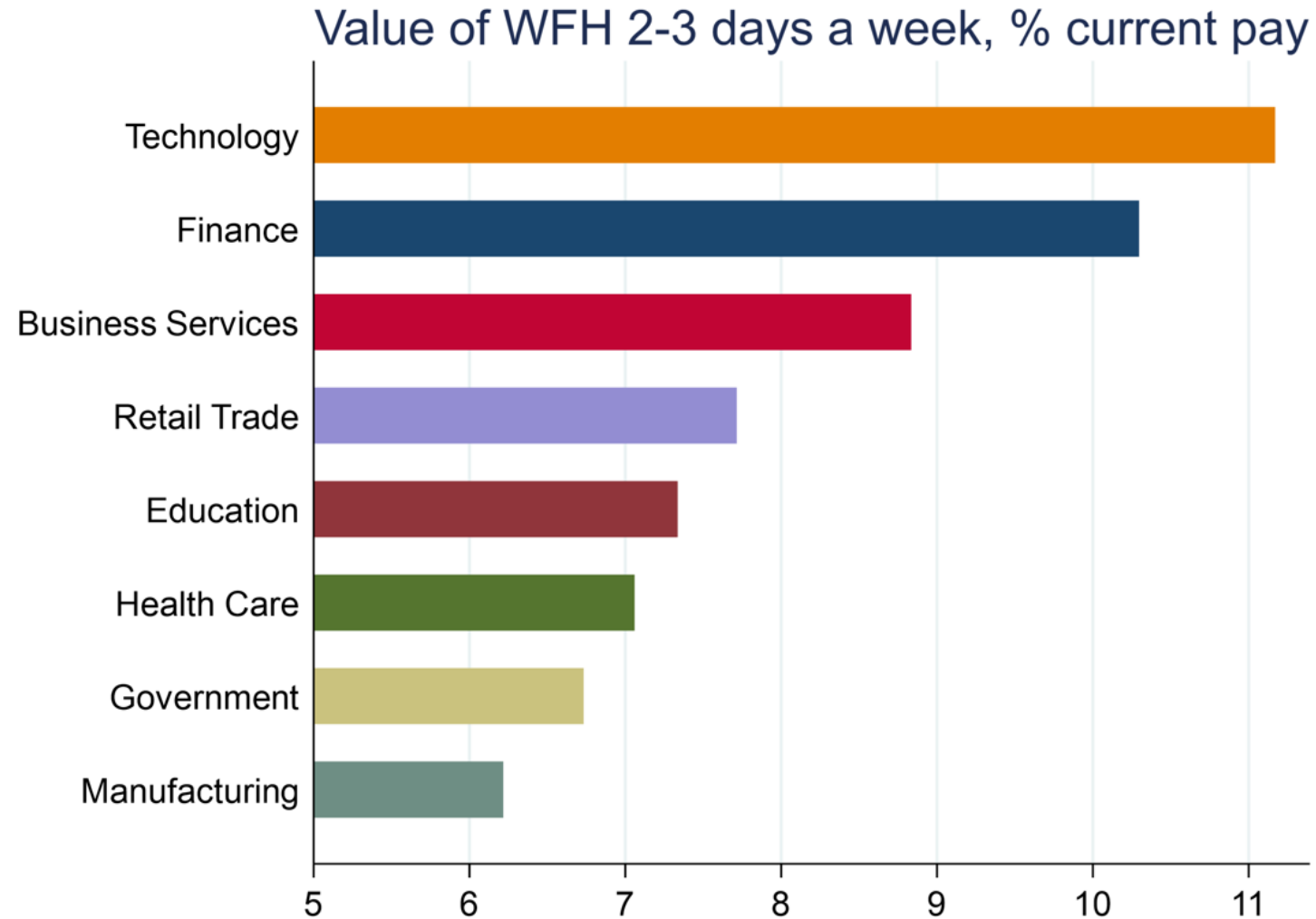
# WFH is particularly high in cities



# **Four benefits of Hybrid explain why this is becoming dominant**

- 1. Employees are happier**
- 2. Productivity is increased (if well organized)**
- 3. Supports diversity, equity and inclusion**
- 4. Saves space (maybe)**

# Happier: Employees value hybrid-WFH as about an 8% pay increase



**Source:** Data from 17,087 responses through 2021, reweighted to match US population. Industries with 1000+ respondents. Details on <https://wfhresearch.com/>

# Results for a recent RCT on 1612 engineers, marketing and finance professionals found WFH reduced quit rates 35%

Hybrid WFH lowered employee quit rates by 35%

Tweets

Tweets & replies

Media

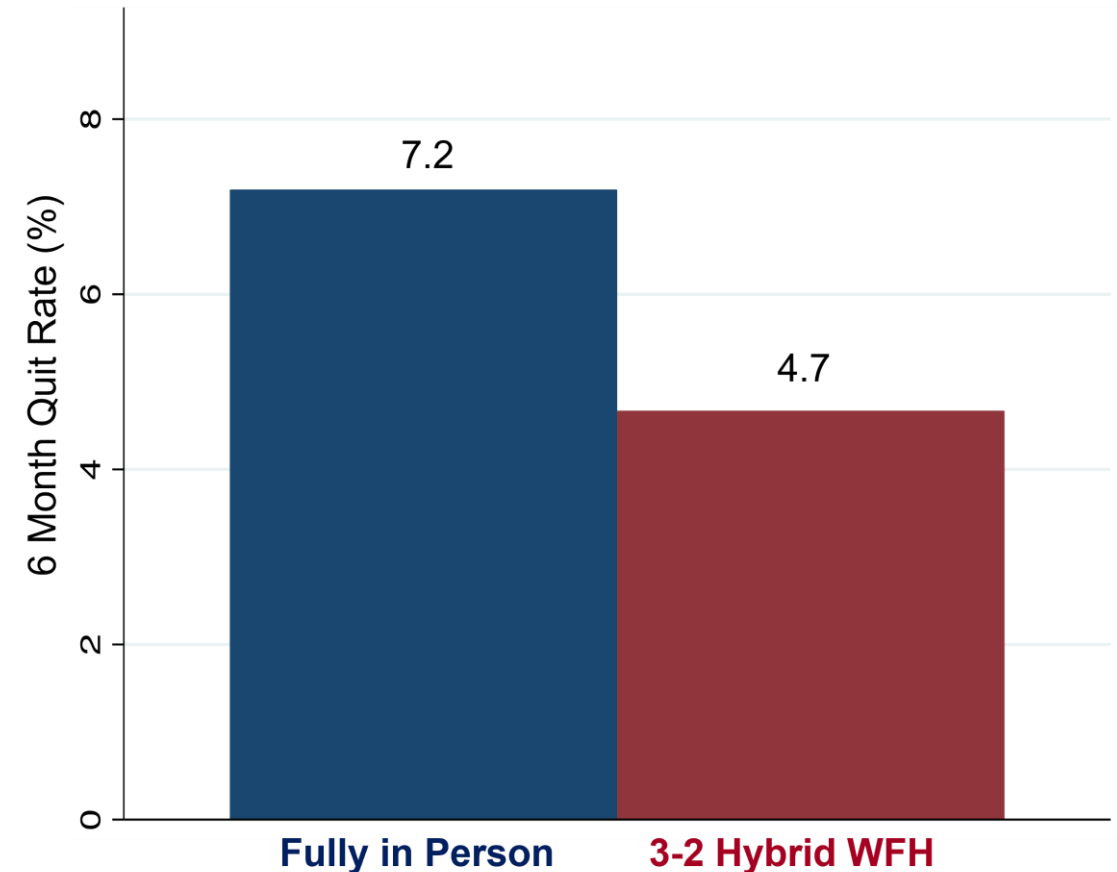


**Nick Bloom** @I\_Am\_NickBloom · Jul 25

New RCT on 1612 employees, finding hybrid #WFH

- 1) Reduced quit rates by 1/3
- 2) Shifted hours from WFH days to office days & weekends
- 3) Increased messaging and video calls (even in the office)
- 4) Generated a small productivity increase

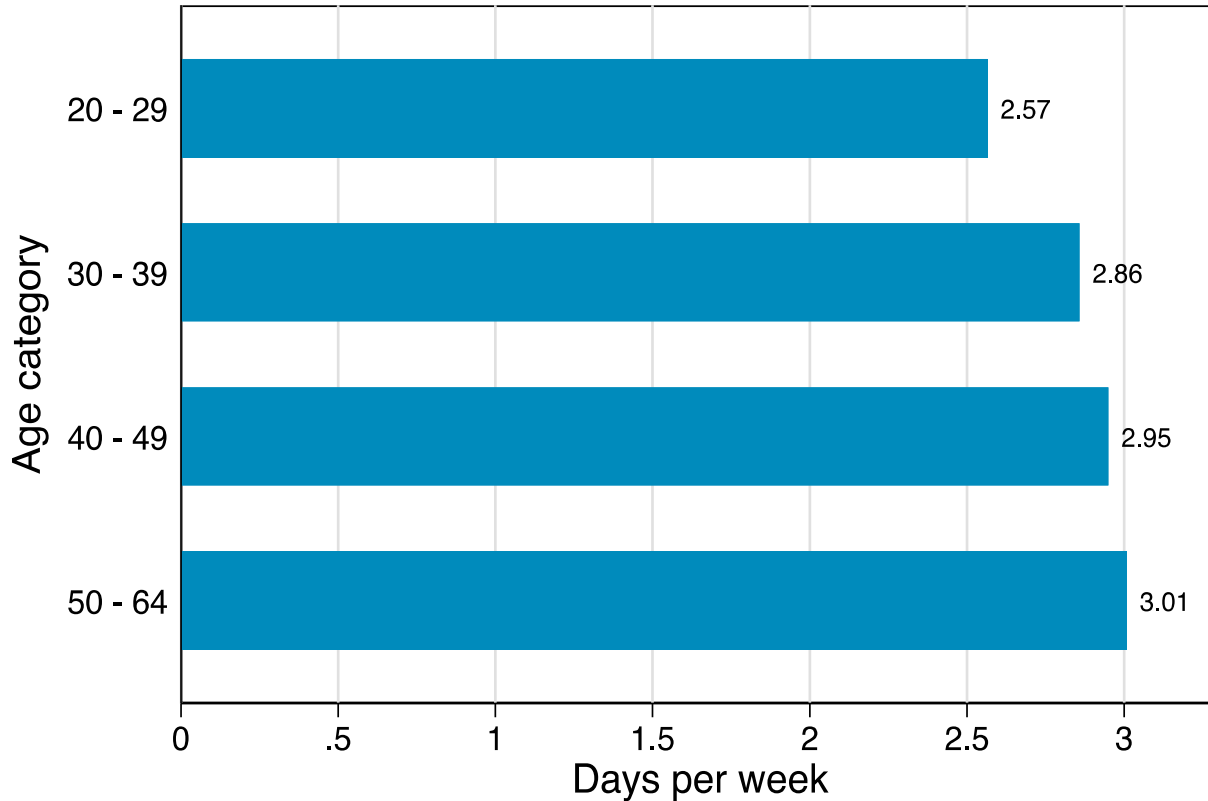
Paper: [bit.ly/3J4rL5l](https://bit.ly/3J4rL5l)



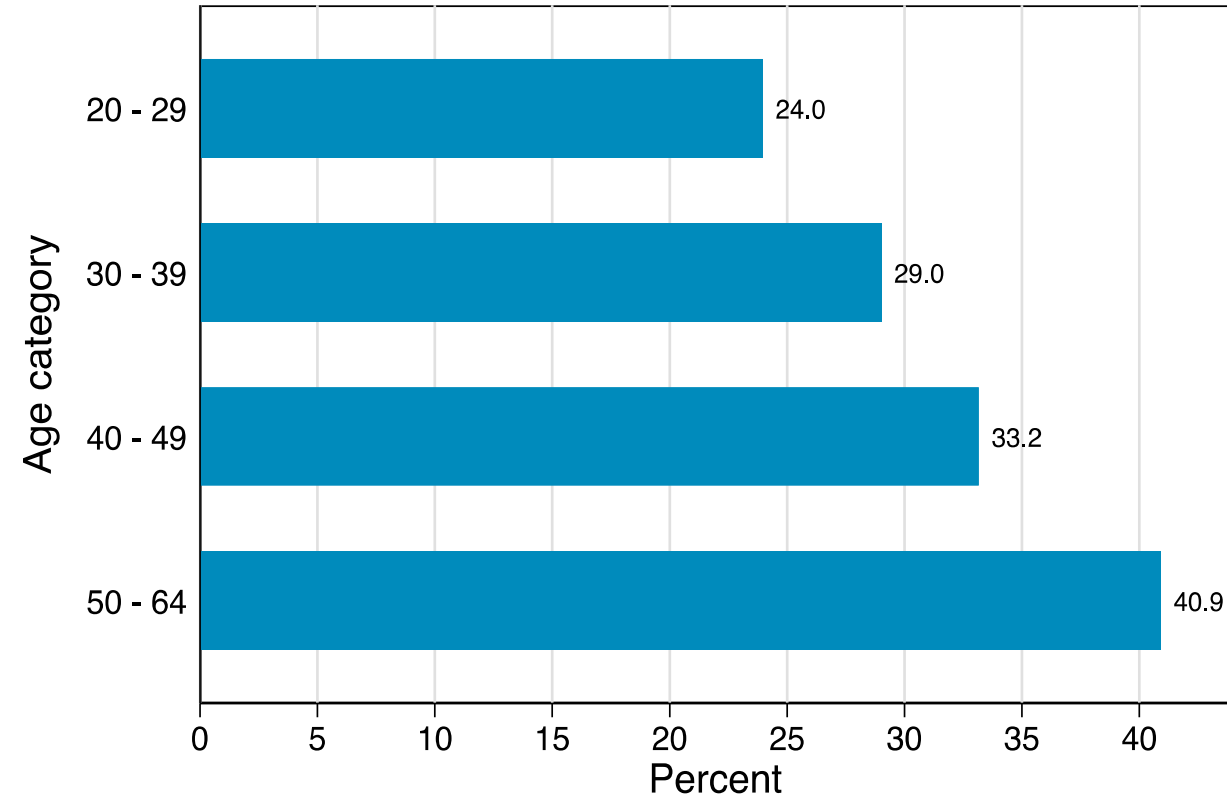
**Source:** Attrition rates for 1612 engineers, marketing and finance professionals of Trip.com who were randomized between September 2021 and February 2022 by even and odd birthdays into control (5-days a week in the office) and treatment (Mon, Tue and Thur in the office; Weds and Fri working from home). Difference statistically significant at the 5% level. Details in Bloom, Han and Liang (2022) "How Hybrid Work from Home Works Out".

# Note, most employees do not want to WFH every day

## Desired amount of post-COVID working from home



## Percent who want full-time remote work



**Responses to the question: *As the pandemic ends*, how often would you *like to* have paid workdays at home?**

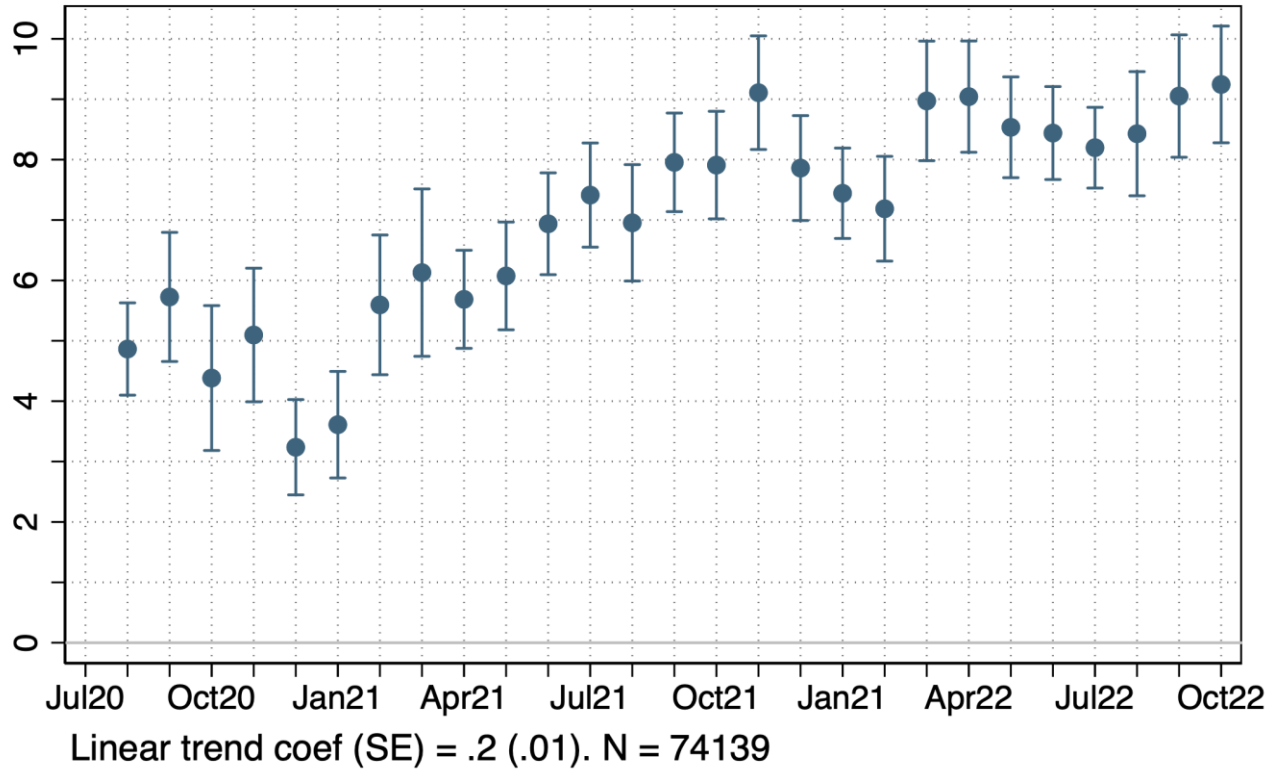
**Sample:** Data are from the April to June 2022 SWAA waves from [www.wfhresearch.com](http://www.wfhresearch.com). The sample includes respondents who have work-from-home experience during the pandemic and pass the attention-check questions. We re-weight the sample of US residents aged 20 to 64 earning \$10,000 or more in 2019 or 2021 to match Current Population Survey on age, sex, education, and earnings. **N = 8,788 (both figures)**

# Productivity: RCTs, natural experiments and survey research suggests a small productivity boost from WFH of around 3% to 5%

## Survey Data

## Research Papers

Efficiency of Working From Home Relative to Working on Business Premises (%)



DOES WORKING FROM HOME WORK? EVIDENCE FROM A CHINESE EXPERIMENT\*

NICHOLAS BLOOM  
JAMES LIANG

Abstract: A rising share of Chinese workers are working from home (WFH), but there are mixed results on productivity. This paper reports the results of a WFH experiment with Chinese travel agency employees. Home working led to a 1.8% increase in productivity (measured as minutes per minute) and a 1.8% increase in job satisfaction. Home workers also reported a 1.8% increase in job satisfaction. Home workers also reported a 1.8% increase in job satisfaction. Home workers also reported a 1.8% increase in job satisfaction.

Working from home is becoming more common in the United States, the results of a WFH experiment with Chinese travel agency employees. Home working led to a 1.8% increase in productivity (measured as minutes per minute) and a 1.8% increase in job satisfaction. Home workers also reported a 1.8% increase in job satisfaction. Home workers also reported a 1.8% increase in job satisfaction.

\*We thank Jennifer and logistical support. V Michelle Rowan for the dustries. We thank our Sabrina Pabilonia, Shit and our four anonymous helpful comments. We Network for Informal funding for this project the co-founder of Ctrip. CEO. No other comments results nor the article Stanford University IR mental design.

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"WORKING" REMOTELY?  
SELECTION, TREATMENT, AND THE MARKET FOR REMOTE WORK

Natalia Emanuel · Emma Harrington<sup>1</sup>

April 9, 2022

Abstract: How does workers who choose the call-centers of a U and on-site workers p down. In a different merly on-site workers to already-remote wo inally chose remote jo chose on-site ones, ind gest that adverse sele in call-center jobs prio lockdown for adverse

Prithwiraj (Raj) Ch

Running Head: Work-From-Anyw

Keywords: geographic flexibility; w

Acknowledgements: The authors a Rider, Tim Simcoe, and participant INSEAD Mobility Conference, St Wisconsin-Madison, and Wharton draft.

<sup>1</sup> Corresponding author – Raj Choudhury, Business School, Boston, MA 02163. Email: rchoudh@mit.edu

<sup>2</sup> Girus Foroughi, doctoral candidate, Harvard Business School, Boston, MA 02163. Email: girus@hbs.edu

<sup>3</sup> Barbara Larson, Executive Professor of 360 Huntington Avenue, Boston, MA 02118. Email: barbara.larson@hbs.edu

Work-From-Anywhere: The Productivity Effects of Geographic Flexibility

Nick Bloom @Am\_NickBloom · Jul 25

New RCT on 1612 employees, finding hybrid #WFH

- 1) Reduced quit rates by 1/3
- 2) Shifted hours from WFH days to office days & weekends
- 3) Increased messaging and video calls (even in the office)
- 4) Generated a small productivity increase

Paper: [bit.ly/3J4rL5i](https://bit.ly/3J4rL5i)

HOW HYBRID WORKING FROM HOME WORKS OUT

Nicholas Bloom  
Ruching Han  
James Liang

Working Paper 30292  
<http://www.nber.org/papers/w30292>

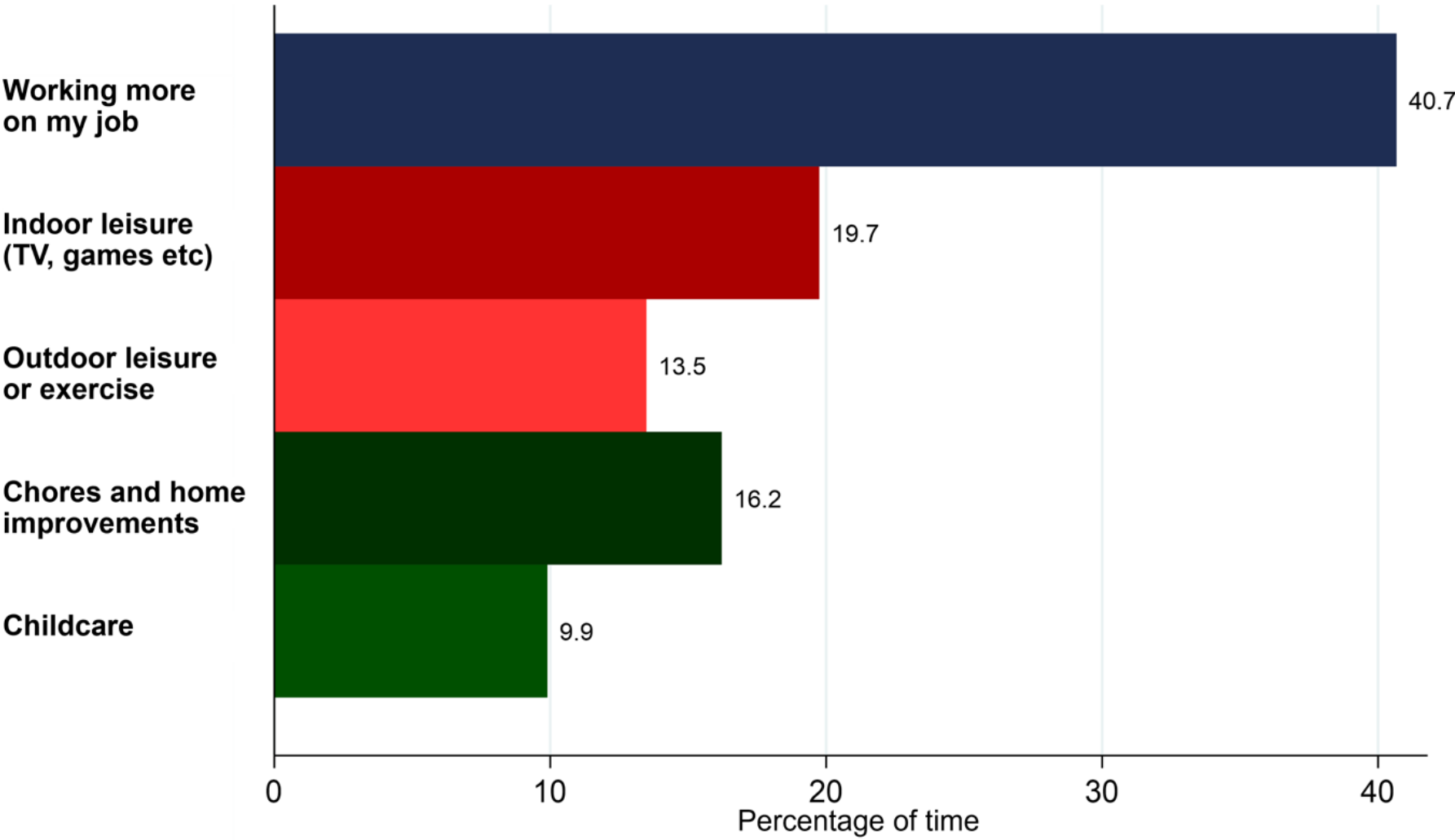
NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
July 2022

ABSTRACT

Hybrid working from home (WFH), whereby employees work a mix of days at home and at work each week, has become dominant for graduate employees in the US. This paper evaluates a randomized control trial on 1612 engineers, marketing and finance employees of a large technology firm that allowed odd birthday employees to WFH on Wednesday and Friday and kept even birthday employees full time in the office. There are four key results. First, WFH reduced attrition rates by 35% and improved self-reported work satisfaction scores, highlighting how employees place a considerable value on this amenity. Second, WFH reduced hours worked on home days but increased it on other work days and the weekend, highlighting how home-working alters the structure of the working week. Third, WFH employees increased individual messaging and group video call communication, even when in the office, reflecting the impact of remote work on working patterns. Finally, while there was no significant impact of WFH on performance ratings or promotions, lines of code written increased by 8%, and employees' self-assessed productivity was up 1.8%, suggesting a small positive impact. Given these benefits for retention, job satisfaction, and productivity, after the experiment ended the firm extended hybrid WFH to the entire company.

# The two drivers of higher productivity are quiet at home (better for concentration “deep” work) and time from saved commuting

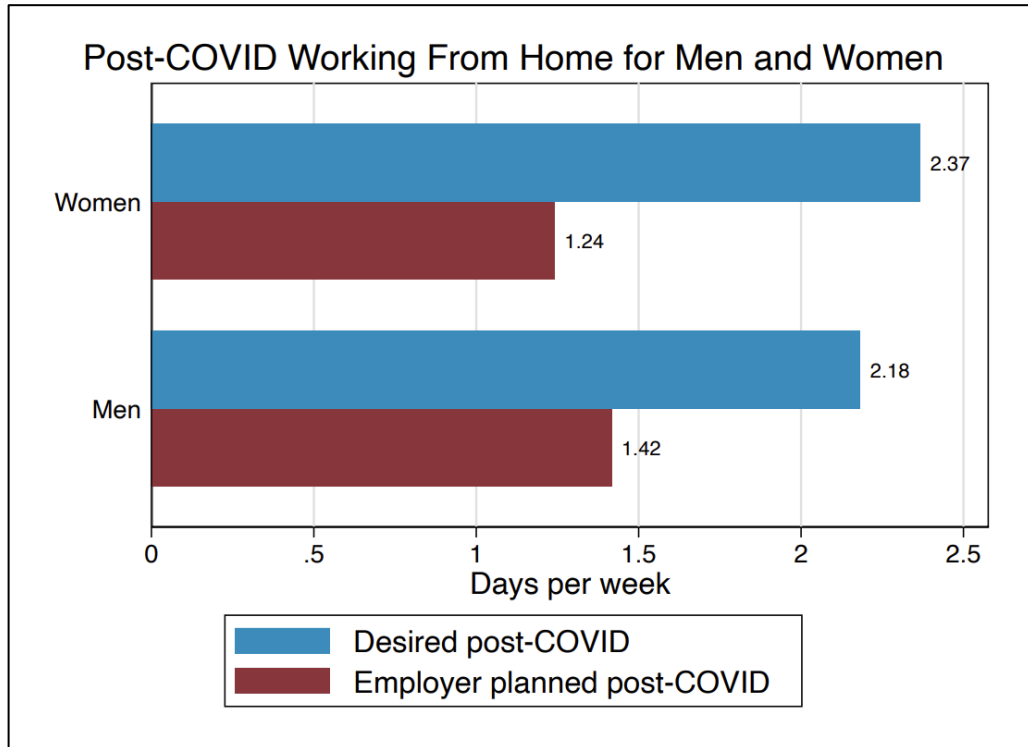
How did you use the commuting time you saved by working from home, percent



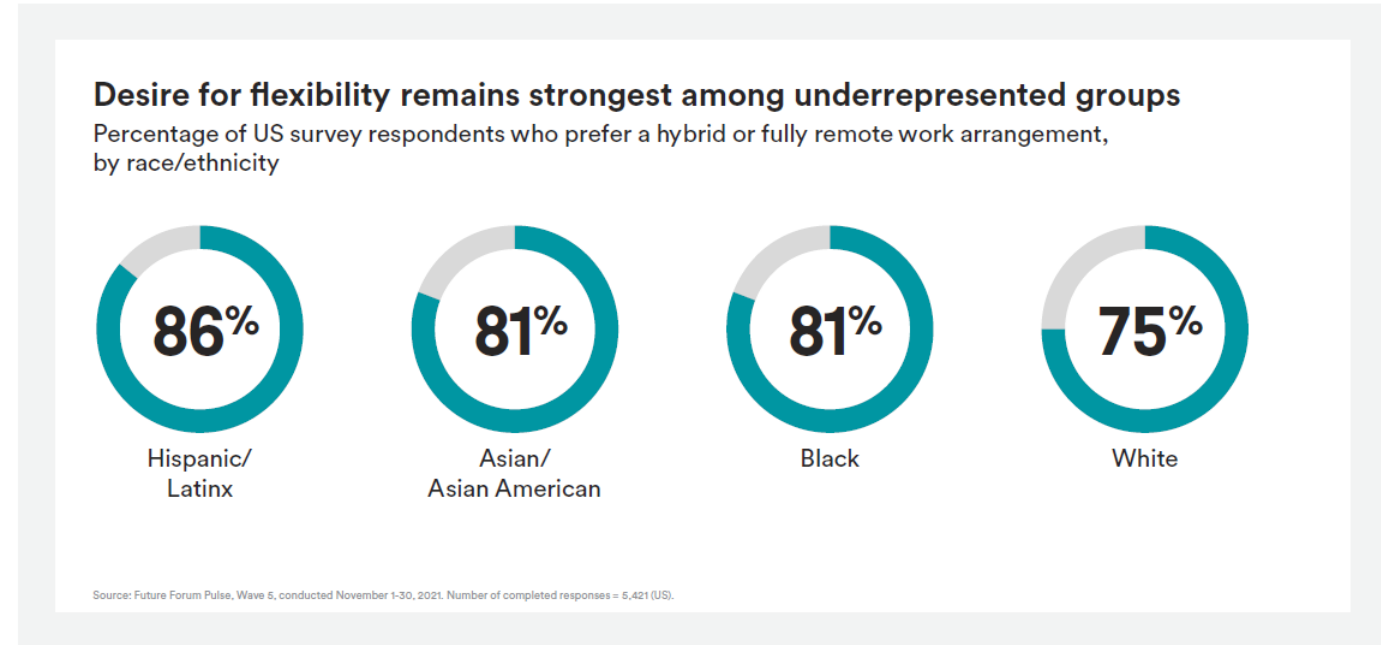
Source: Data from 32,461 respondees who can work from home, reweighted to match the US population. Details on <https://wfhresearch.com/>



# Diversity: Data suggests Hybrid-WFH can help support diversity in various dimensions (race, gender, age and religion)



**Source:** Data from 10,000 US responses in through 2021, reweighted to match the US population. Details on <https://wfhresearch.com/>



**Source:** Survey of 10737 knowledge workers in US, Australia, France, Germany, Japan and the US conducted November 1-30, 2021. Details on <https://futureforum.com/>

**Space saving: So far not that much..... I'll come back to this later...**



# Going to cover three sections

>>>> **Current state of working from home**

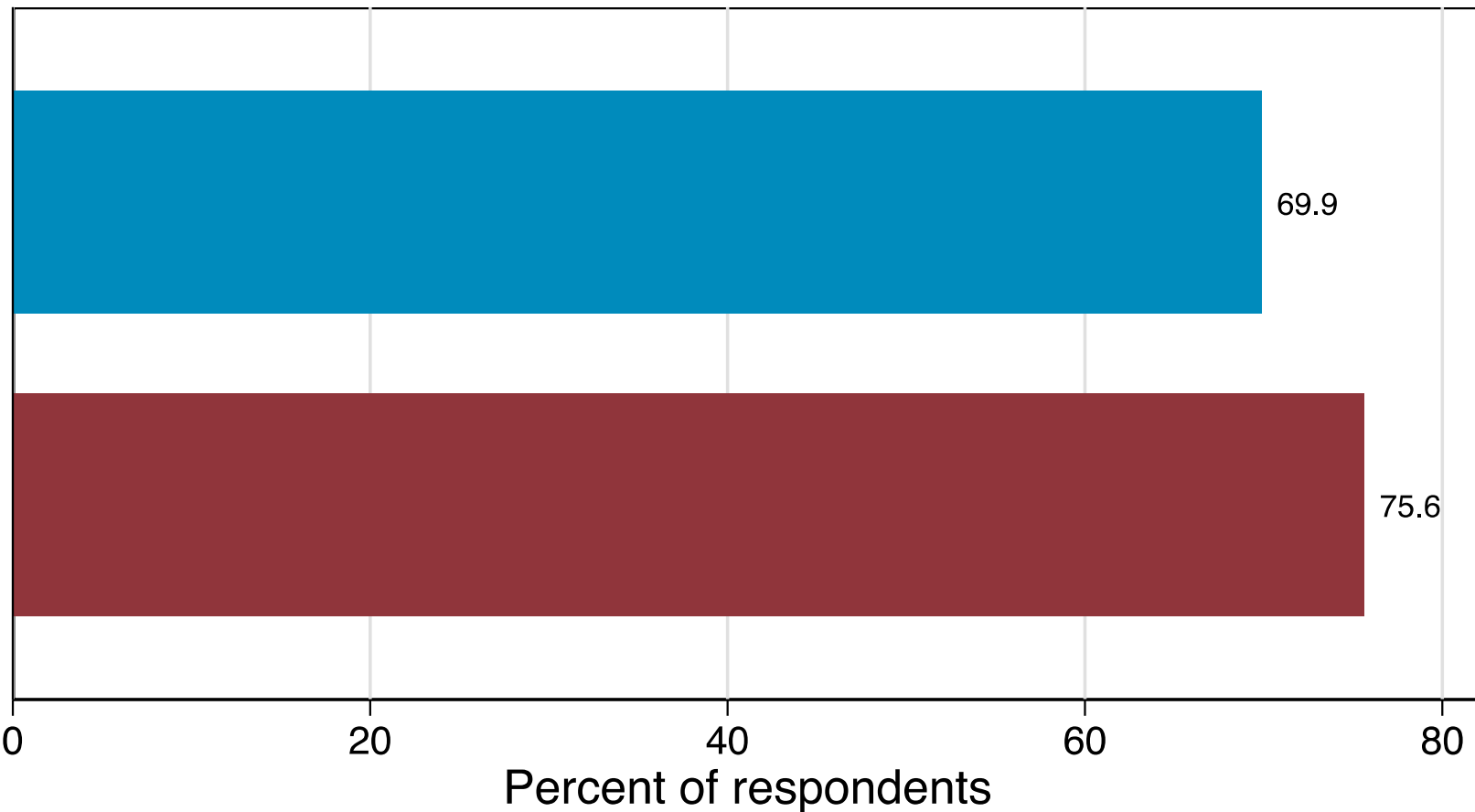
>>>> **Current state of managing hybrid-WFH**

>>>> **Impact on offices and real-estate**

# The hybrid challenge is choice vs coordination - employees want both

Share of workers who would like to:

- Choose their own WFH days
- Coordinate with coworkers on worksite days



### Responses to the questions:

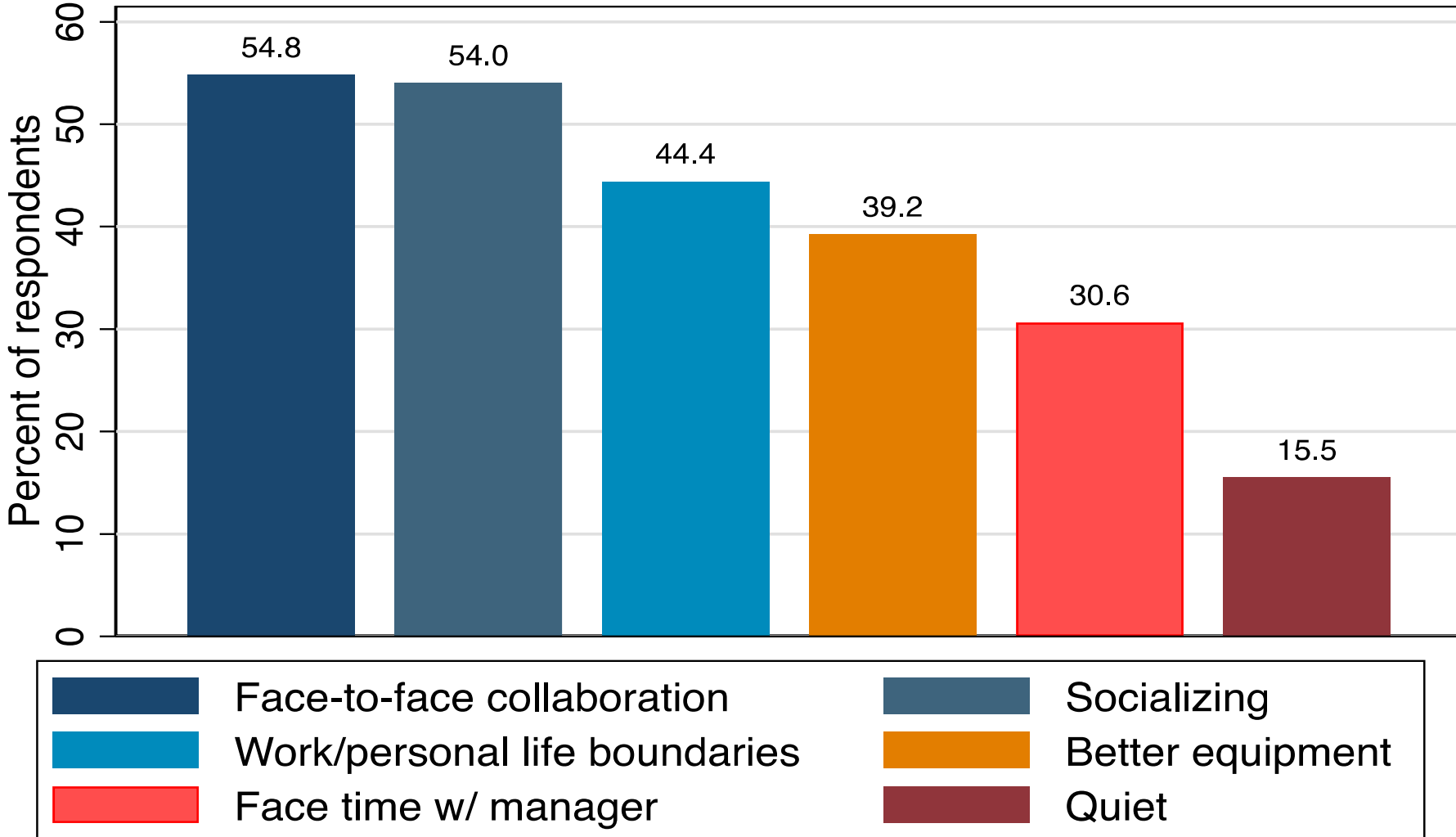
- Which of the following would you prefer?
  - Being able to choose which days you work from home (if any)
  - Your employer sets a policy that determines who works from home on which days
- Would you like your co-workers to come into work on the same days as you?

**Notes:** The sample for the blue bar includes employed respondents from the July and December 2021 SWAA waves who passed the attention check questions (for December respondents) and worked from home at some point since the start of the COVID-19 pandemic. The SWAA samples US residents aged 20 to 64 who earned \$10,000 or more in 2019. **N = 3,949 (blue bar).**

The sample for the red bar includes employed respondents from the February 2022 SWAA who reported their employer is planning them to work from home 1 or more days per week after the end of the pandemic. **N = 1810 (red bar).**

# Coordination matters: the benefit of the office is being with colleagues

What are the top 3 benefits of working on your employer's business premises?

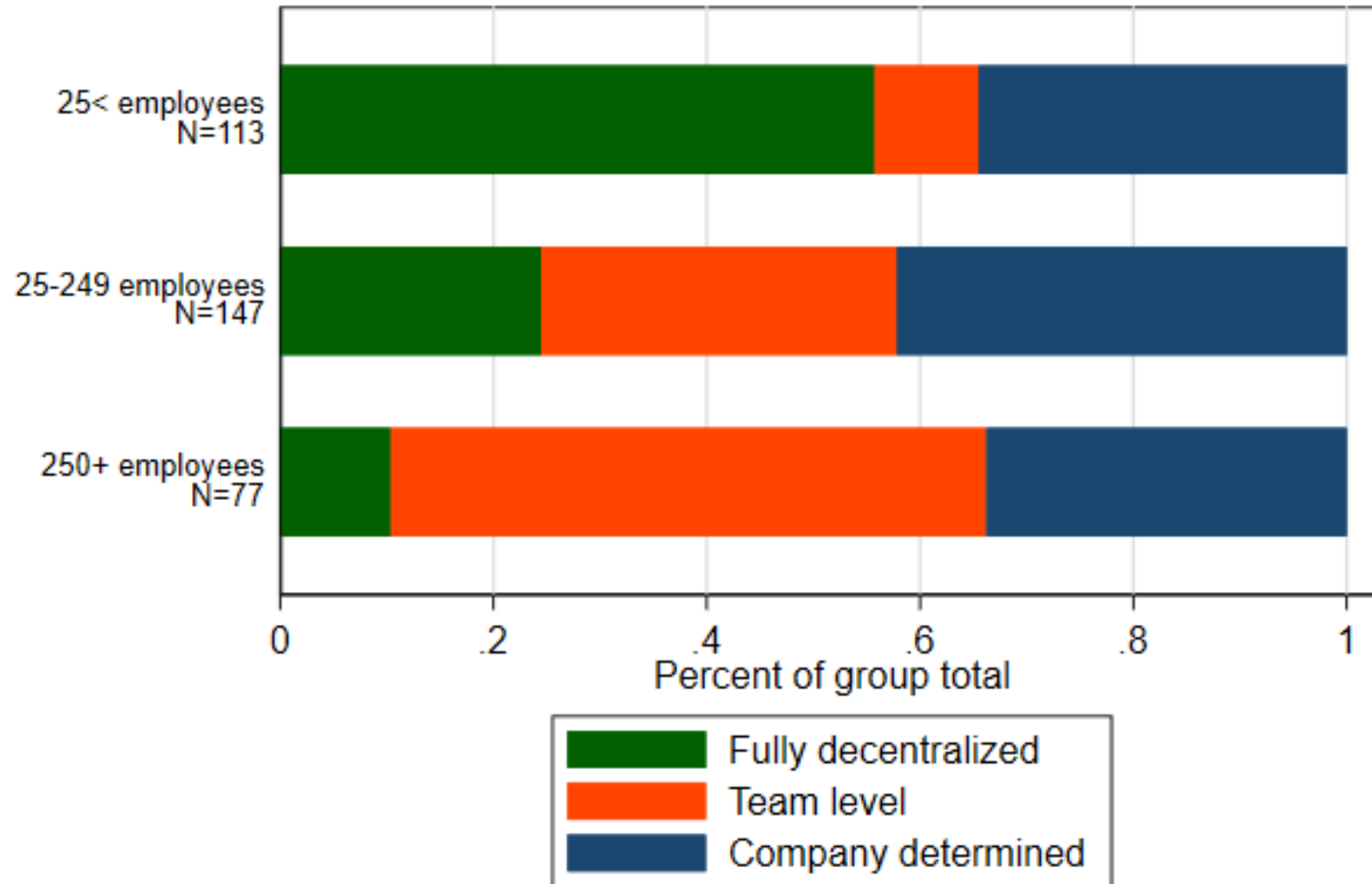


Employees commute for 1 hour to work to be with colleagues – not for the free bagels

**Notes:** The sample includes respondents to the February 2022 SWAA who passed the attention check questions and worked from home at some point since the start of the COVID-19 pandemic. The SWAA samples US residents aged 20 to 64 who earned \$10,000 or more in 2019. **N = 2,973.**

# So large firms mostly planning team or company coordinated hybrid

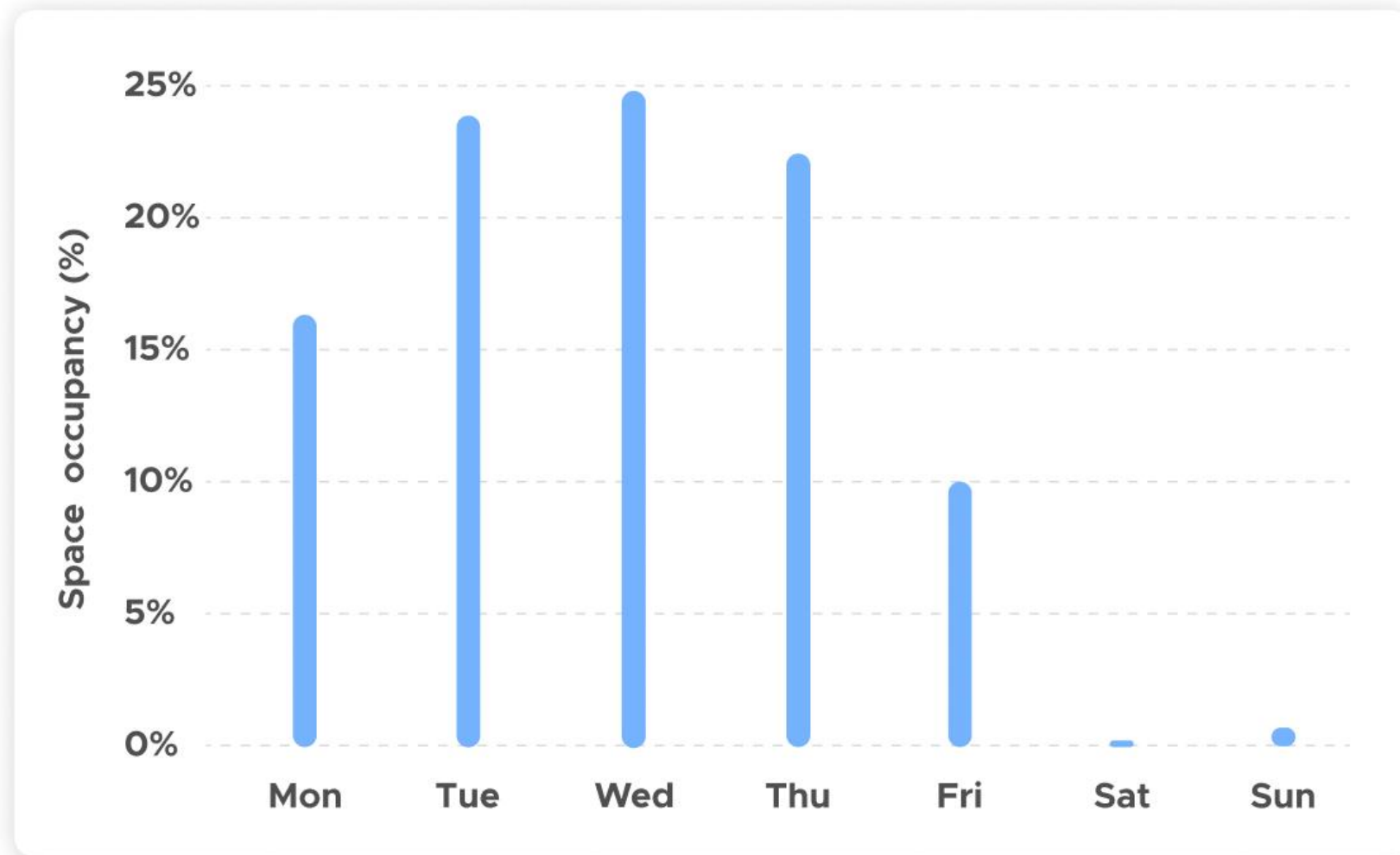
Qu: “Who decides which days and how many days employees work remotely?”



**Source:** Survey of Business Uncertainty conducted by the Federal Reserve Bank of Atlanta, Stanford University, and the University of Chicago Booth School of Business.

# If you pick WFH days I would suggest Monday and Friday

## Busiest office days



# So, how Leaders Can Make the Most of Hybrid WFH

- 1) Coordinate your team to come in on the same 2 or 3 days every week (e.g T and W)
- 2) Promote in person meetings, events, coffee, training, lunches on those office days
- 3) Suggest cross-office zoom meetings and reading, writing, data etc on home days
- 4) Treat anchor day attendance like 2019 in person attendance – exemptions only for emergencies like a sick child, burst water pipe or illness.
- 5) For new hires (< 1 or 2 years) add an extra day in the office for mentoring

In short, set a culture and organize to achieve this of office time = group social time



# Finally, strong performance reviews critical for managing WFH

- Office employees can be (partly) evaluated by observing inputs - hours & activity
- WFH employees instead need output evaluation – data, evaluations & discussion
- Importantly this is not surveillance, but “output” performance reviews



Porte A

	Out	Nov	Dez	4Tri	Jan	Fev	Mar	1Tri
<b>Total Segmentos</b>	61,53	83,64	79,17	73,25	52,27	0,00	0,00	34,37
<b>Total PF</b>	70,15	76,99	75,13	68,82	42,11	0,00	0,00	26,86
Preferencial	58,09	86,85	86,87	76,92	15,16	0,00	0,00	13,43
					18,78	0,00	0,00	18,12
					37,11	0,00	0,00	25,07
					<b>75,99</b>	<b>0,00</b>	<b>0,00</b>	<b>51,89</b>
					47,40	0,00	0,00	41,84
					26,08	0,00	0,00	23,13

Porte A

SEGMENTO	PESO	META	REAL	%	PONTOS	OPORT.
<b>Cientes</b>					0,00	0,00
Incr. Base Ativa	0	28	146	150,0	0,00	0,00
Incr. Clientes c/ Ofer...	0	153	0	0,0	0,00	0,00
Abertura Contas PF	0	120	24	11,3	0,00	0,00
Abertura Contas Busine...	0	6	0	0,0	0,00	0,00
Aquisição Com Of. Bási...	0	136	0	0,0	0,00	0,00
Conversão Of. Básica	0	313	1	0,0	0,00	0,00
<b>Vendas</b>					0,00	0,00
Super Auto	0	5	2	40,0	0,00	0,00
Seguro Vida	0	47	26	55,3	0,00	0,00
Seguro Residencial	0	25	8	32,0	0,00	0,00
Seguro Auto	0	6	1	16,7	0,00	0,00
Seguro Vida Master	0	2	0	0,0	0,00	0,00
Cartões	0	140	75	53,6	0,00	0,00
CP Protegido	0	295	70	23,7	0,00	0,00
Capitalização	0	58	6	10,3	0,00	0,00
Novas Cobranças Ativas	0	4	2	50,0	0,00	0,00
Títulos Liquidados	0	5.301	1.815	34,2	0,00	0,00
<b>Captações - Captação Líquida</b>					0,00	0,00
Captação Alvo	0	1.371	1.072	78,2	0,00	0,00
Previdência Foco PF	0	184	599	325,6	0,00	0,00
Captação Demais	0	766	-3.001	-391,8	0,00	0,00
<b>Depósito à Vista / Float</b>					0,00	0,00
DAV / Float	0	100	1.708	999,0	0,00	0,00
<b>Empréstimos - Incr. Saldo Médio</b>					0,00	0,00
Empréstimos Alvo PF	0	543	-118	-21,7	0,00	0,00

TOTAL SEGMENTOS 52,27

PERÍODO: Jan, Fev, Mar, 1Tri  
Tri: 10% Jan: 27%

Buttons: Voltar, Imprimir

**SUPER RANKING**

# Going to cover three sections

>>>> **Current state of working from home**

>>>> **Current state of managing hybrid-WFH**

>>>> **Impact on offices and real-estate**

# Implications of hybrid WFH for the Office and Cities

1) Size

2) Location

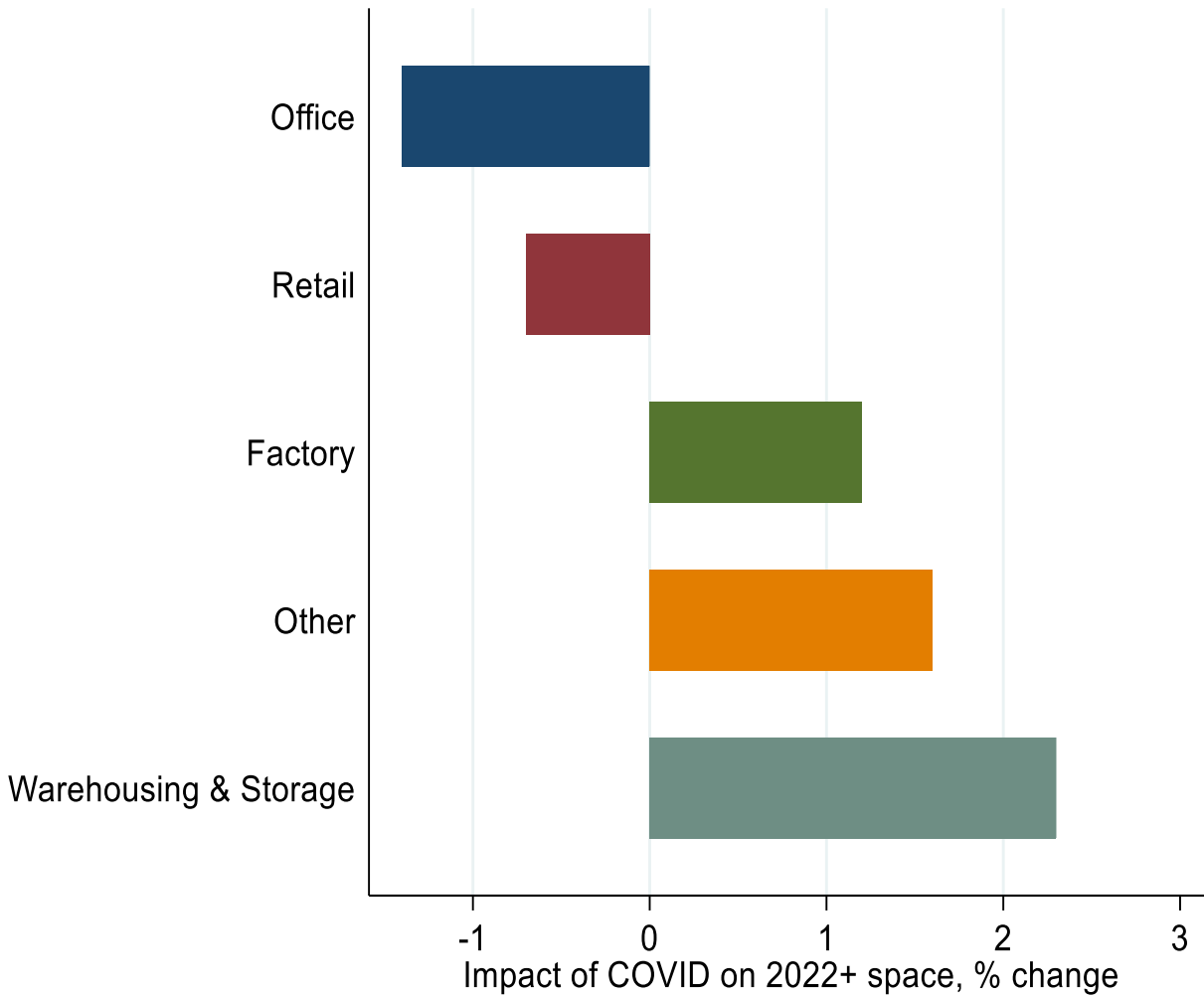
3) Design

4) Support services

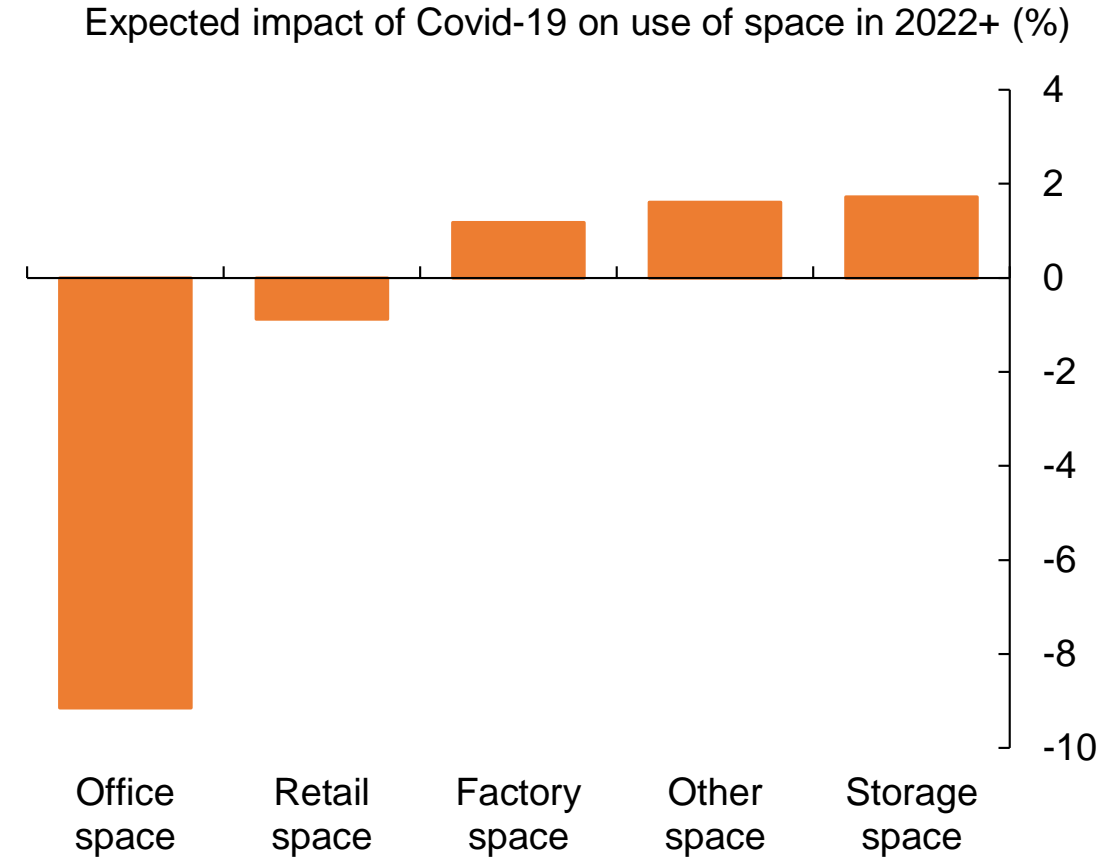


# 1) Firms are *currently* not planning to cut office space too much....

## US Data



## UK Data

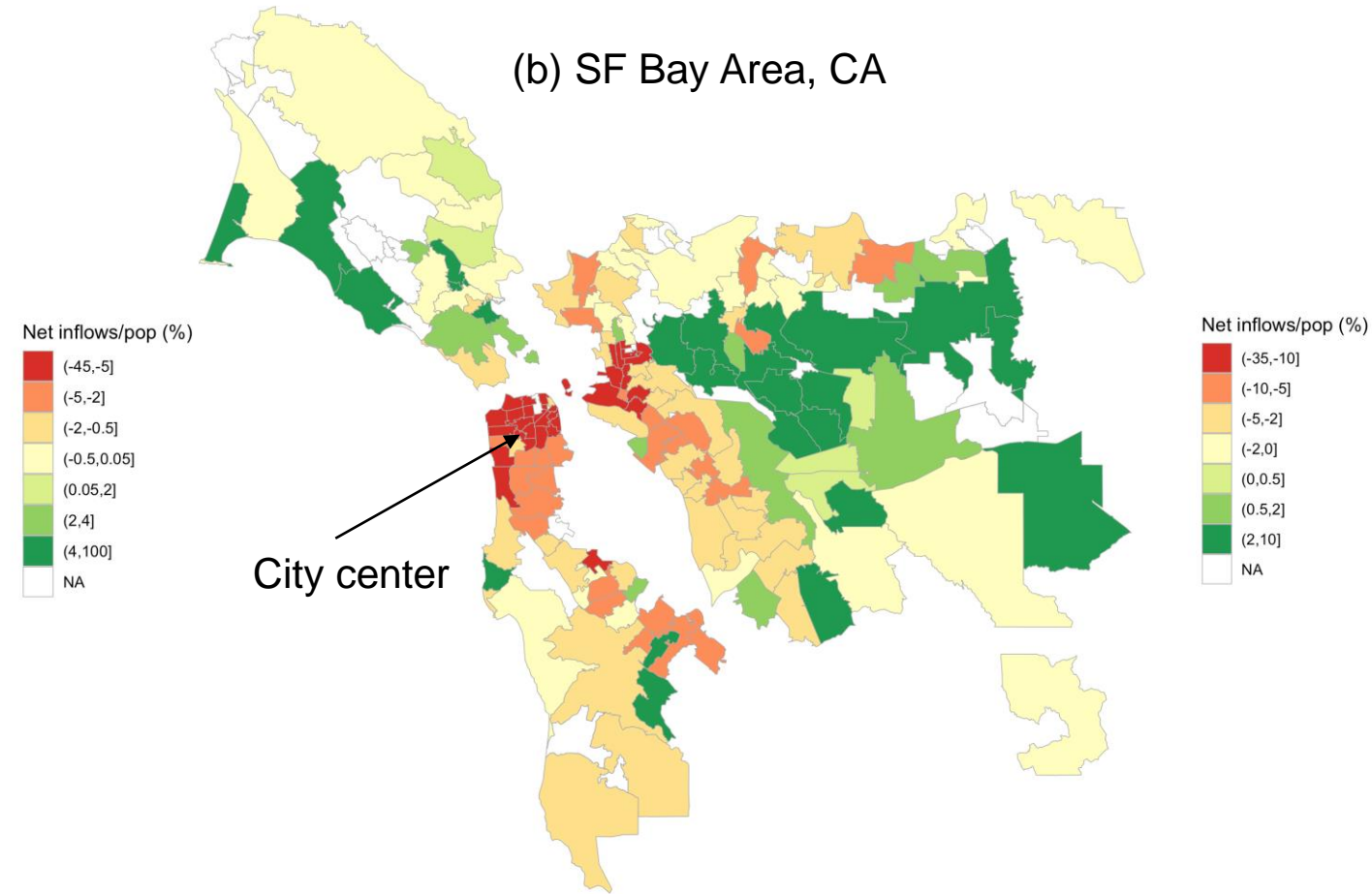
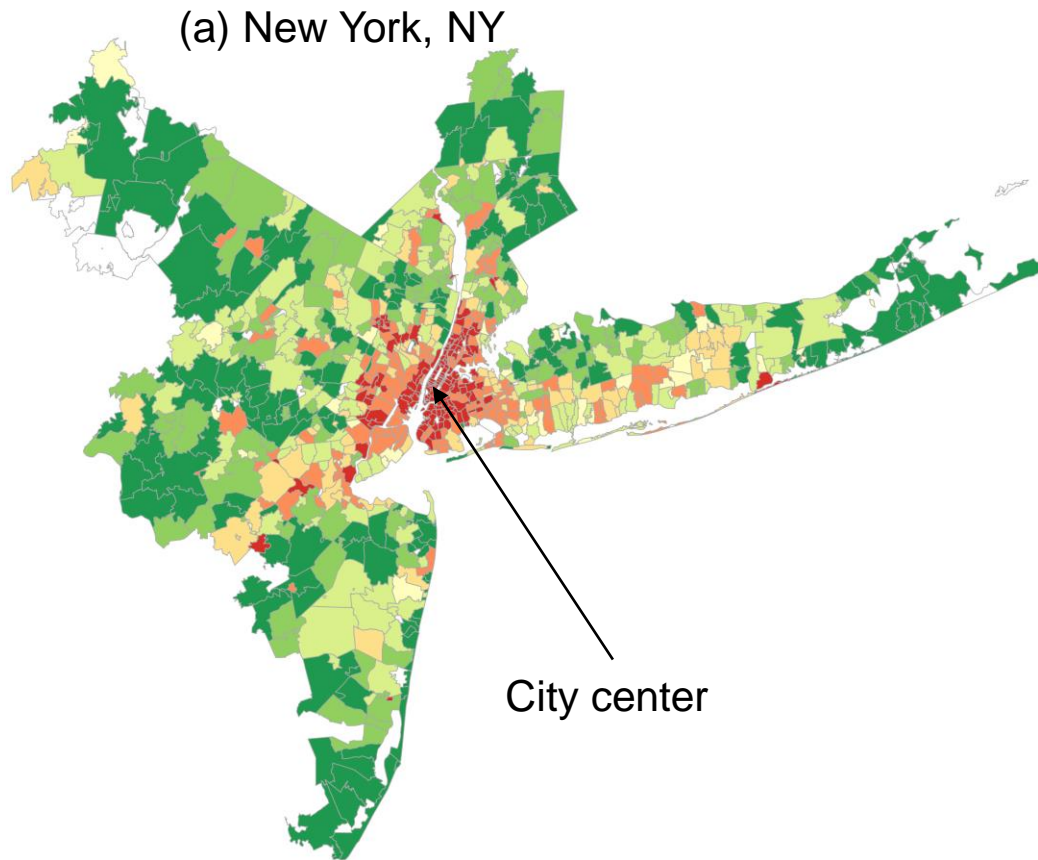


**Source:** 445 US firms in October 2021 from the Atlanta Fed, Chicago and Stanford Survey of Business Uncertainty, weighted to match the US Economy <https://www.atlantafed.org/research/surveys/business-uncertainty>

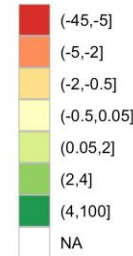
**Source:** 3,000 UK firms in September 2021 from the Bank of England, Nottingham and Stanford Decision Maker Panel, weighted to the UK Economy <https://voxeu.org/article/covid-19-and-structural-change>

## 2) Location: some people have left city centers (e.g. NY and SF)

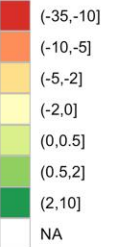
Cumulative net flows (moves in – moves out) from Feb 2020-Jul 2021 as a % of the zipcode population



Net inflows/pop (%)



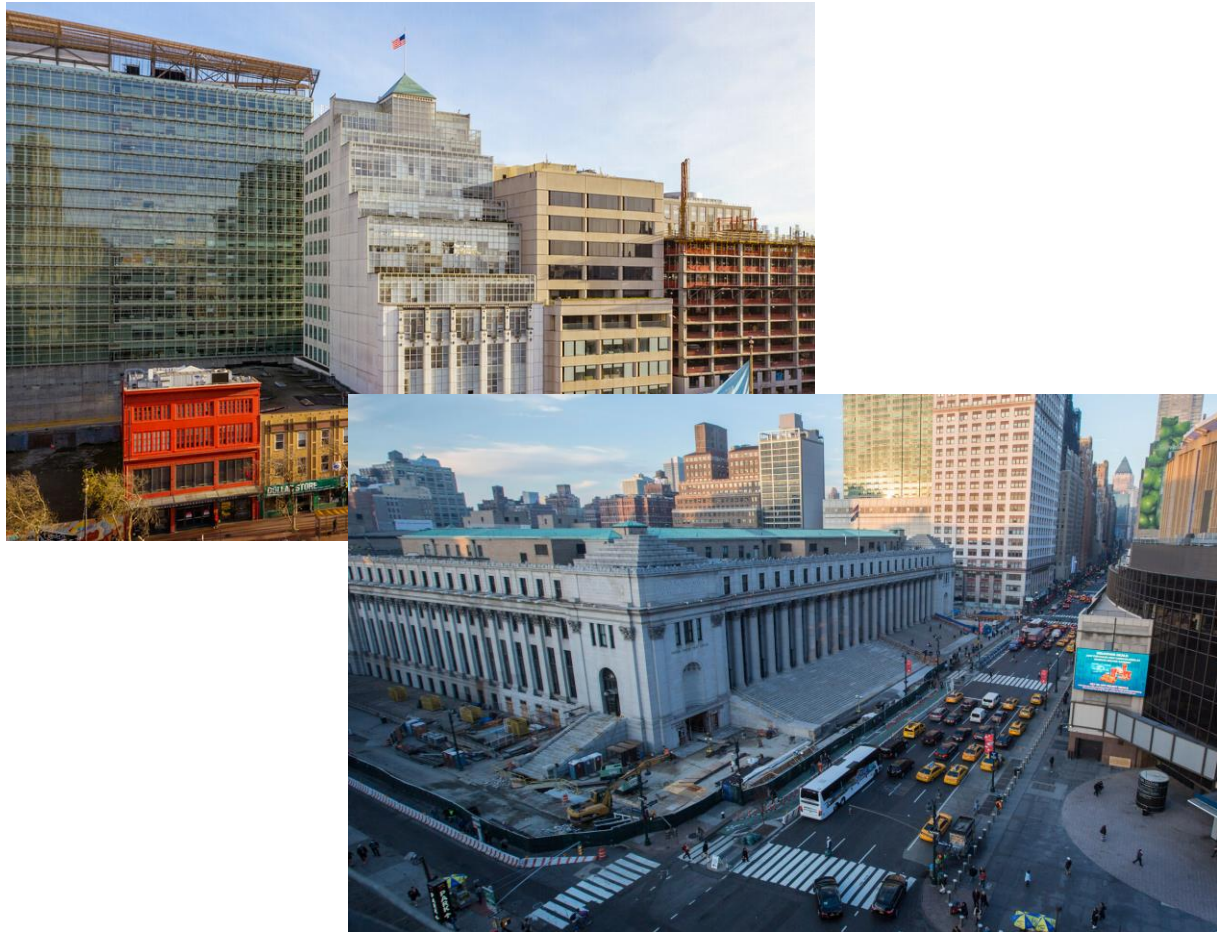
Net inflows/pop (%)



# But offices are mostly not moving: firms are focusing on quality space

Under hybrid-WFH the idea is to have employees come in the same two or three days each week. To do this offices need to be convenient and high quality

City Centers (SF and NY)



Office Parks (Texas and Cupertino)

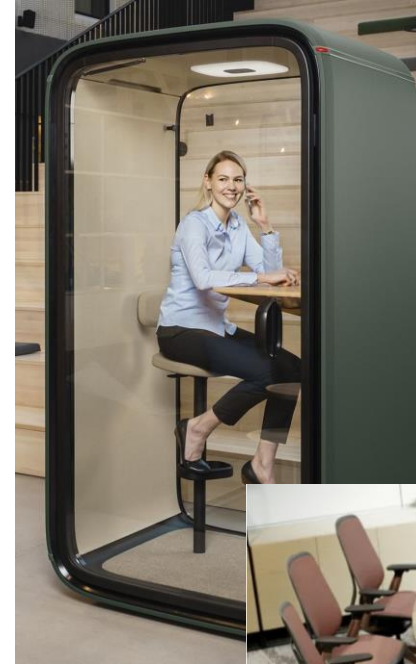


### 3) Design - firms say they are putting in Teams/Zoom rooms, more meeting rooms and lounge seating

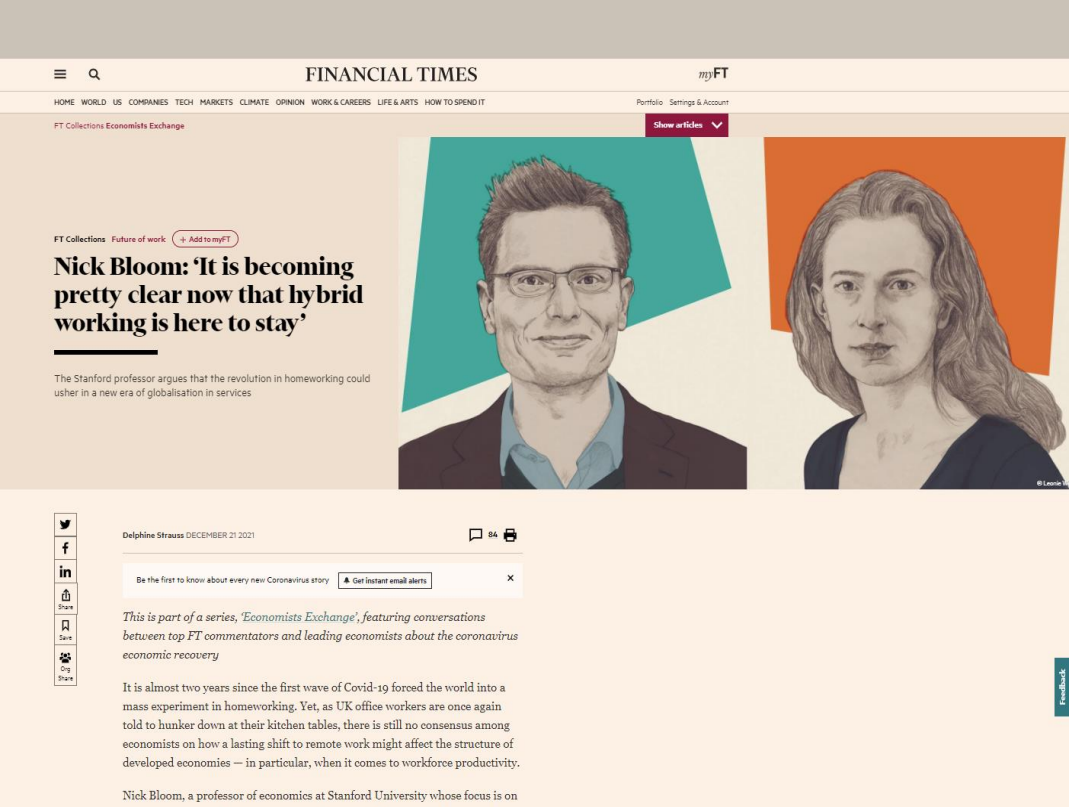
Massed offices and desks are out



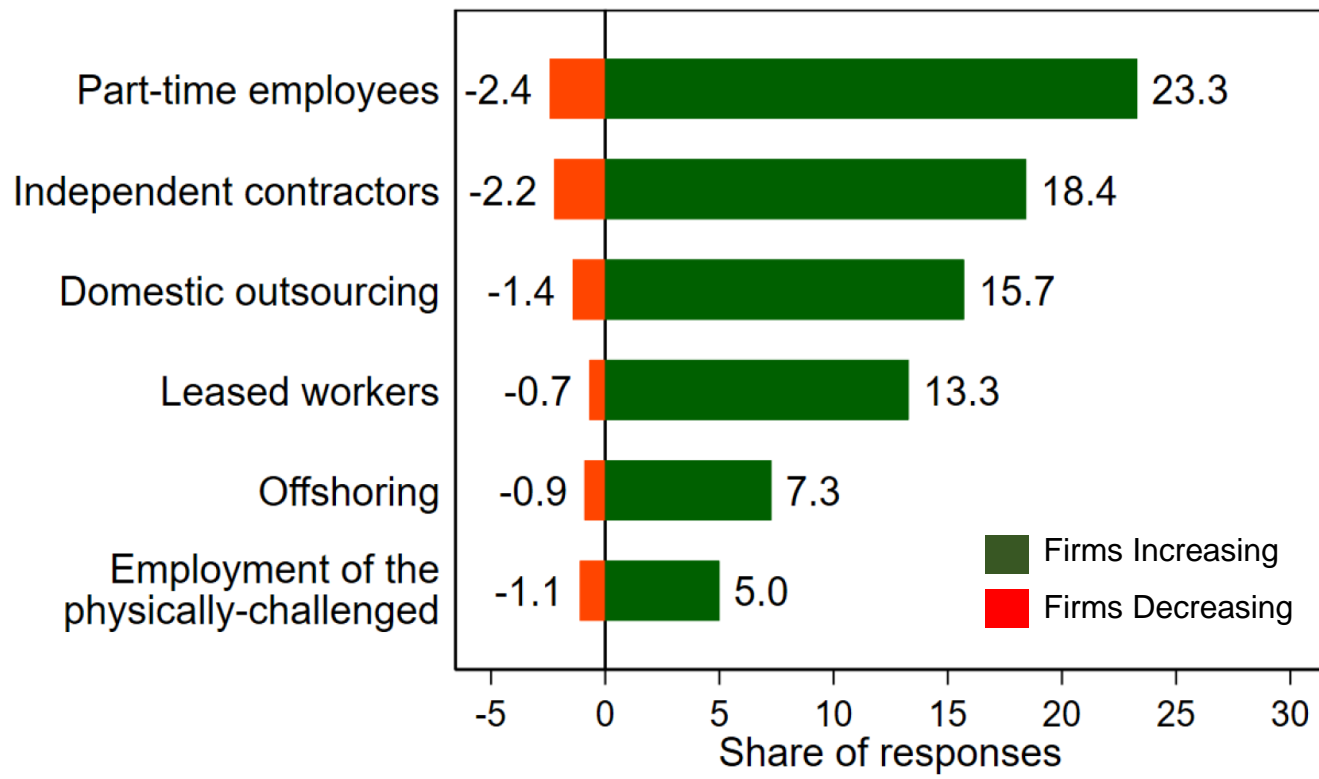
Video-cubicles, meeting rooms and virtual conference rooms are in



# 4) WFH will increase outsourcing/offshoring of things like IT, HR and finance to access talent, save costs and free up space



## What has increased remote work changed at your firm?

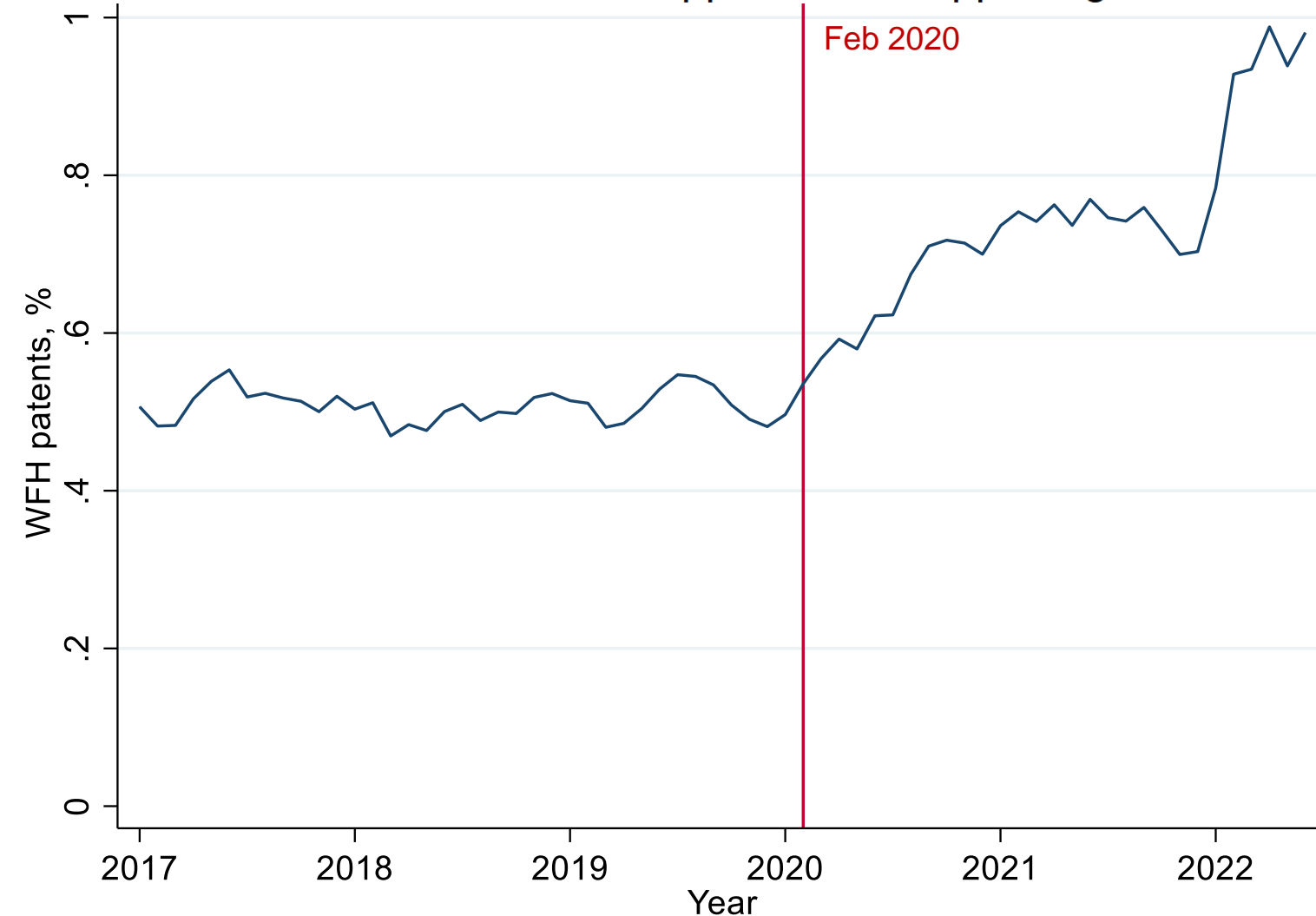


**Notes:** Survey conducted in August 2022 by the Atlanta Federal Reserve Bank's Survey of Business Uncertainty. N=481. Firms reweighted to match all public and private US firms.



# Longer run technology will continue to build WFH momentum

Share of New Patent Applications Supporting WFH



- New WFH technologies are being rapidly developed as the market for WFH products has increased 5x
- For example, scheduling software, better AV, virtual reality and holograms
- Should make WFH more appealing and space scheduling easier

Source: US Patent and Trademark Office new patent application files. Details in Bloom, Nicholas, Steven J. Davis, and Yulia Zhestkova. 2021. "[COVID-19 Shifted Patent Applications toward Technologies that Support Working from Home.](#)"

# Conclusions

1. WFH is here to stay – typically 2 days a week for the average office worker
2. Key to succeed is coordinate so employees in together to work socially
3. Offices are being designed to focus on social working together
4. WFH likely to grow in the longer-run driven by improving technology

# Further information:

## Linked In

The screenshot shows the LinkedIn profile of Nick Bloom. At the top, there is a navigation bar with icons for Home, My Network, Jobs, Messaging, Notifications, Me, Work, and Learning. Below this is a search bar and a profile picture of Nick Bloom. The main header area includes the name "Nick Bloom" and his title "Stanford Economics Professor | 2022 Top LinkedIn Voice In Remote Work | Speaker and consultant on work from home | co-founder of wfhresearch.com". It also lists his affiliations: Stanford University and University of Cambridge. A section titled "Analytics" shows 6,185 profile views, 18,618 post impressions, and 3,272 search appearances. A "Resources" section is partially visible at the bottom. On the right side, there are options to "Edit public profile & URL" and "Add profile in another language". Below that is an advertisement for CHOC (Center for Human Capital Optimization) with a "Follow" button. The "People also viewed" section lists Bob Sutton, Rebecca Diamond, guido imbens, and Tsedal Neeley.

## Stern Speakers

The screenshot shows the profile page for Nicholas Bloom on the Stern Speakers website. The top navigation bar includes social media icons and links for Stern Strategy Group, Stern Speakers & Advisors, Stern Strategy Insights, Minds Worth Meeting, Careers, and Contact Us. The main header area features the "stern strategy group" logo and the text "speakers & advisors". Below this is a navigation menu with "OUR SPEAKERS & ADVISORS", "TOPICS", "SERVICES", "NEWS", "ABOUT", "CAREERS", and "CONTACT". The profile name "NICHOLAS BLOOM" is prominently displayed, with buttons for "INQUIRE ABOUT THIS SPEAKER" and "BOOKMARK SPEAKER". A large portrait photo of Nicholas Bloom is shown, along with a "VIDEOS" section containing two video thumbnails. The "BIOGRAPHY" section contains the following text: "As organizational leaders try to carve out a new workplace model, they will need to go beyond weighing what employees are thinking and feeling to considering the economic impacts of distributed work on businesses, industries and society. For more than a decade, Stanford University economist Nicholas Bloom – a global authority on remote and hybrid work – has been measuring those impacts as part of his broader research into worldwide management practices, particularly in times of uncertainty and market shocks. His research is helping leaders make key decisions as they prepare for a return to the office." A "Speech Topics" section is partially visible at the bottom.

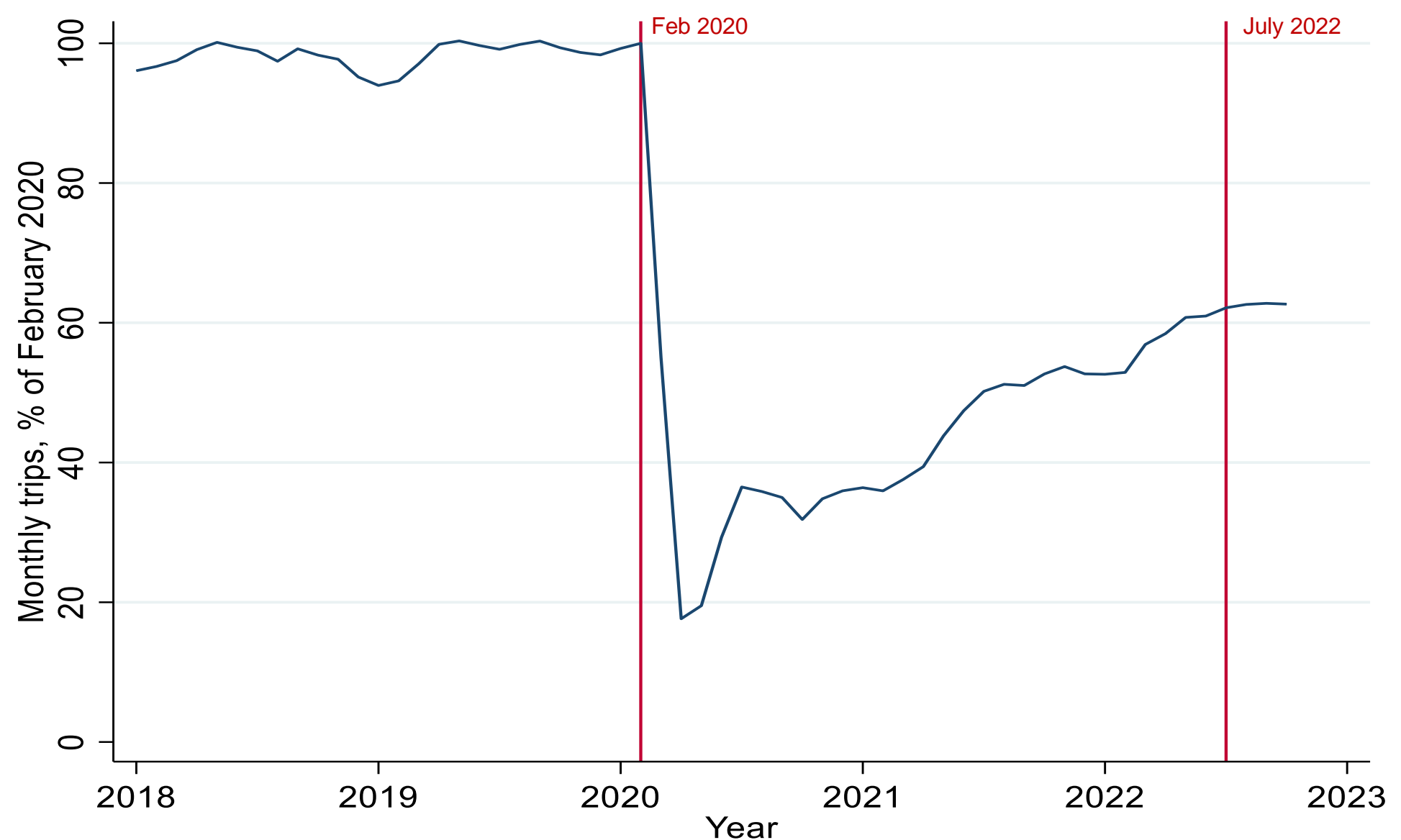
**Back-Up**

# Pandemic has also seen a start-up surge, partly from WFH which provides a cheaper way to start a new company



**Source:** US Census Bureau: Business Applications with a high-propensity of turning into payroll businesses. 3-month moving average (except from 2020/2-2020/9 due to the rapid impact of the pandemic). <https://fred.stlouisfed.org/series/AHBATOTALSAUS>

# Public transit journeys are stabilizing about 30% below pre-pandemic, consistent with the rise in WFH



**Notes:** US Passenger trips in the National Transit Database, covering around 800,000 passenger trips per month in February 2020. Data de-seasonalized and on a 3-month moving average (except from 2020/2-2020/9 due to the rapid impact of the pandemic). <https://www.transit.dot.gov/ntd>

# Stanford Working From Home Management Training

Stanford | ONLINE

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Learning for a Lifetime  
online. at Stanford. at work.

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Home » Courses » Managing Remote and Hybrid Teams



## Managing Remote and Hybrid Teams

XLFH110

Stanford School of Engineering

Employees everywhere are demanding flexible work options and employers are reacting by moving toward hybrid work models where, on any given day, some people may be in the office and some will be working remotely. This ever-shifting dynamic requires leaders to reconsider and adjust skills they have mastered in the in-person environment so that their hybrid and virtual teams remain effective and happy. Leaders must pay special attention to how culture, trust, motivation and interpersonal connections are created and maintained within this new environment.

With the right kind of guidance, remote and hybrid teams can produce great results. In this self-



FEEDBACK

ENROLL NOW

Format

Online



<https://online.stanford.edu/courses/xlfh110-managing-remote-and-hybrid-teams>

# Surge in start-ups post pandemic - three firms I am working with:

<https://radious.pro/>

<https://kadence.co/>

<https://www.takescoop.com/>



# We offer close-to-home, collaborative spaces.

Work together  
in person;

And get some  
work-life separation;

With no/low  
commute;

In unique spaces,  
distributed across town.

radious

Learn more ▾

Rent a workspace

Manage listings

Employers



## Backyard Oasis: Private Office with Shared Outdoor Meeting Space



More photos



### Shared Accessory Dwelling Unit (ADU) in Portland hosted by Becky

1 workstation · 1 meeting space · 1 bathroom

[Ask host a question](#)



Come experience our thoughtfully crafted eco-industrial detached studio. The studio has great day light with two large French doors that open up to a shared covered deck and expands the space for meetings, a working lunch or taking a mental break.

Start date

mm/dd/yyyy

End date

mm/dd/yyyy

Number of people

5

Check availability



**Actual Radspace in SE Portland**

# A B2B SaaS model for on-demand workspaces

1. **Companies** prepay via subscription;
2. **Employees** book spaces for free;
3. **Homeowners** earn cash;
4. **Radius** keeps 25%.



The Kadence logo features a stylized icon of three horizontal bars of varying lengths on the left, followed by the word "Kadence" in a clean, sans-serif font. The background of the slide is a dark blue-grey with a faint, overlapping image of a business dashboard or analytics page, showing various charts and data points.

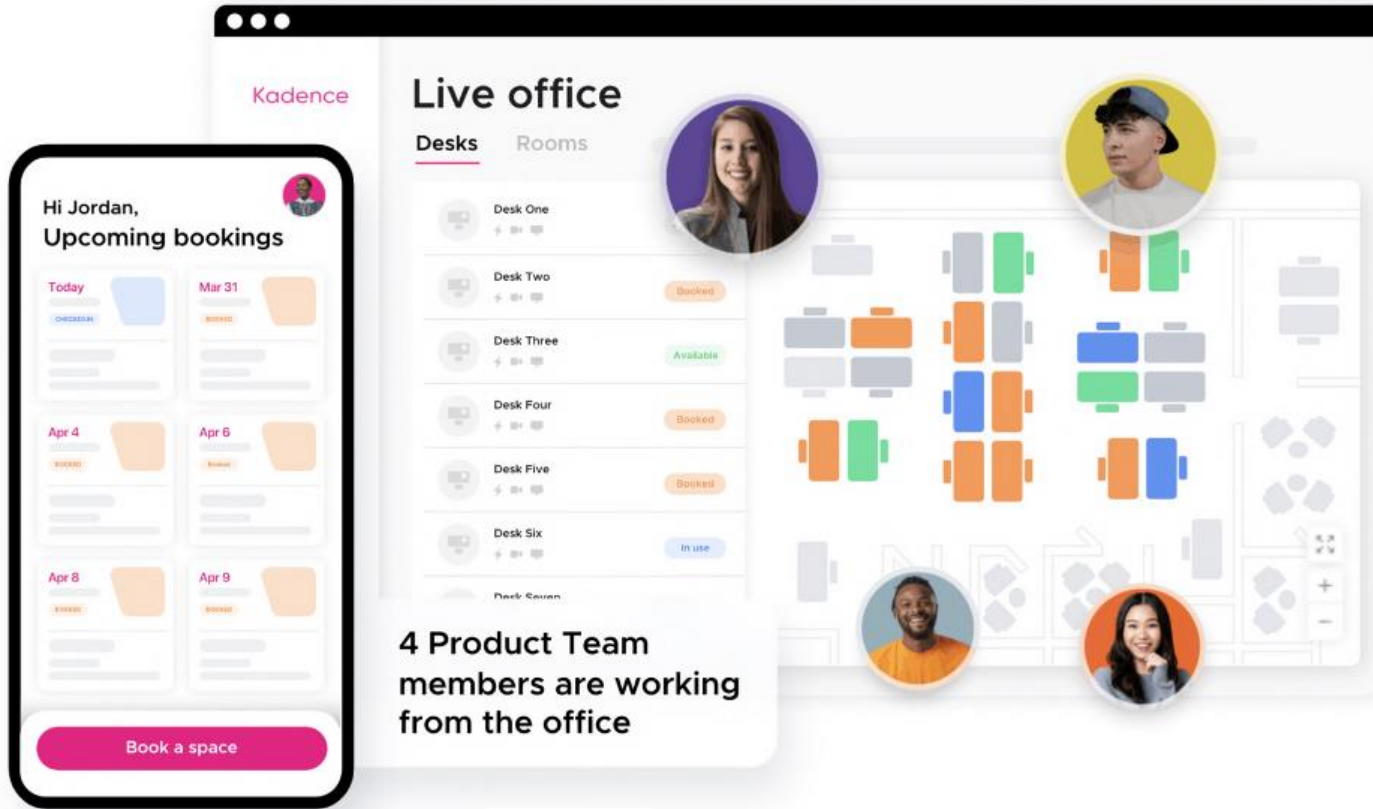
# Kadence

*"Hybrid work represents the biggest shift to how we work in our generation - it will require a new operating model, spanning **people, places, and processes.**"*

- Satya Nadella, CEO - Microsoft

# Supercharging employee's hybrid experience

Coordinate with colleagues, reserve flexible spaces, organize events and discover the perfect hybrid rhythm



**WHERE  
YOU WANT**

**WHO  
YOU WANT**

**WHEN  
YOU WANT**



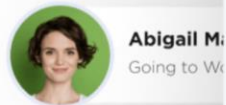
**Aaron Levie  
Box**

*"I'm confident that quantum mechanics is far easier to understand than trying to figure out how teams will manage their schedules in a hybrid workplace."*



# Make every trip to the office count.

Never go into the office, find out your teammates aren't there, and spend the day stuck on Zoom. Team Sync is free to use.



The screenshot displays the SCOOP interface. At the top, it shows a calendar for August 2022. The current day is Monday, August 18th, with a status of 'Working Remotely'. The following days are Tuesday (19th, 'Going to Work'), Wednesday (20th, 'Working Remotely'), and Thursday (21st, 'Working Remotely'). A 'Coworker statuses' overlay for Tuesday 19/22 shows 'Going into work' with mentions for @An, @Brad, @Kyle, and @Shawn, and 'Working remotely' with mentions for @Antwan, @Celesta, and @Kimberly. Another overlay for Monday, 8/18 shows 'Favorite co-workers (6)' with profile cards for Abigail Mathers, Cate Jones, and Chris Carson, and a 'View all' link. A 'My Team (6)' section is partially visible at the bottom.



The screenshot displays the Scoop Extension interface. On the left, a Google Calendar view for August 2022 shows a grid with status indicators: 'Working Remotely' (blue) and 'Going into Work' (green). A 'Marketing team sync' event is highlighted for Tuesday, August 18, from 10:00am to 11:00am, with 4 guests. A pop-up window shows the details of this event, listing the attendees and their status: Randy Grotto (Working remotely, Organizer), Anna Robidoux (Going into work), Dana Volkman (Working remotely), and Ray Littell (Working remotely). On the right, the 'Scoop Extension' sidebar shows the user's status for Tuesday, 8/18, and a list of team members with their current status: Abigail Mathers (Working remotely), Randy Grotto (Working remotely), Anna Robidoux (Going into work), Dana Volkman (Working remotely), and Ray Littell (Working remotely). The bottom navigation bar includes 'Home', 'Teams', and 'Account' icons.

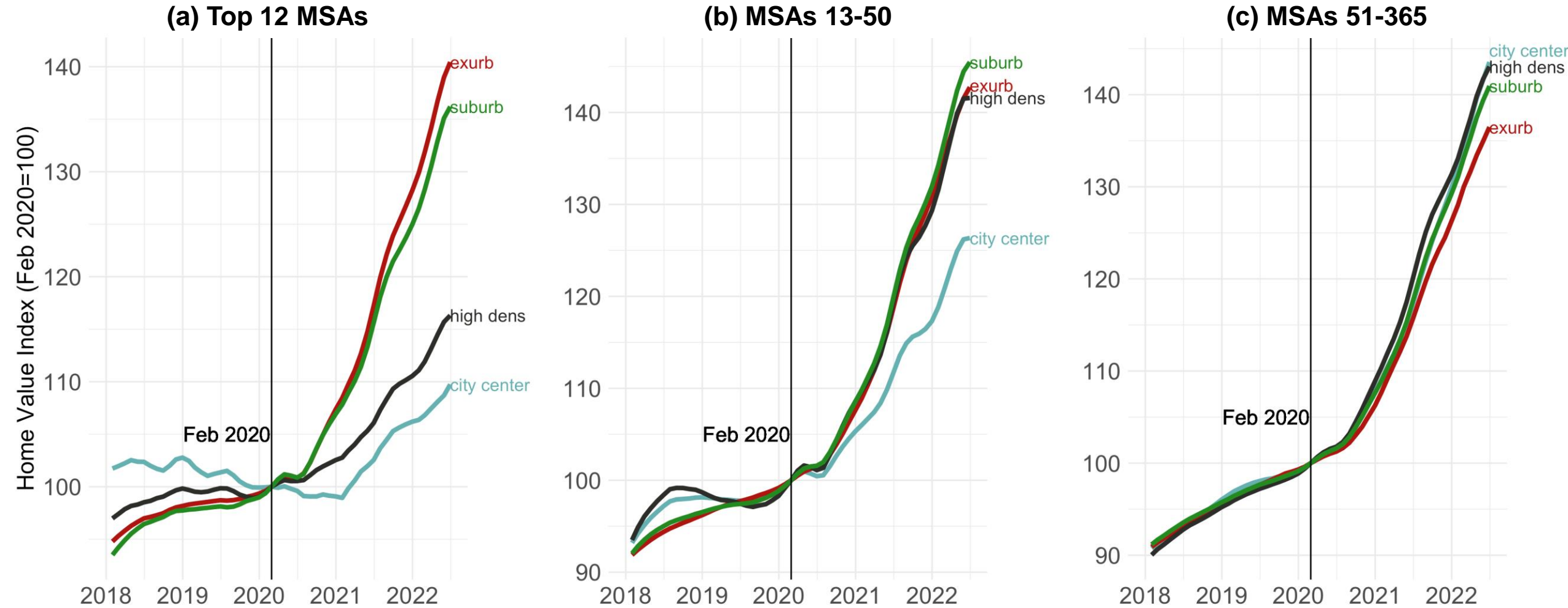
# Hybrid without the heavy lift

Say goodbye to the back and forth of figuring out who's working where. With automated routines and one-click work status updates, teams stay in the loop without all the noise.

[Add to Chrome for Free](#)

[Learn more about Team Sync and Google Calendar](#) →

# The donut effect (pushing city center prices down) is strongest in the largest cities

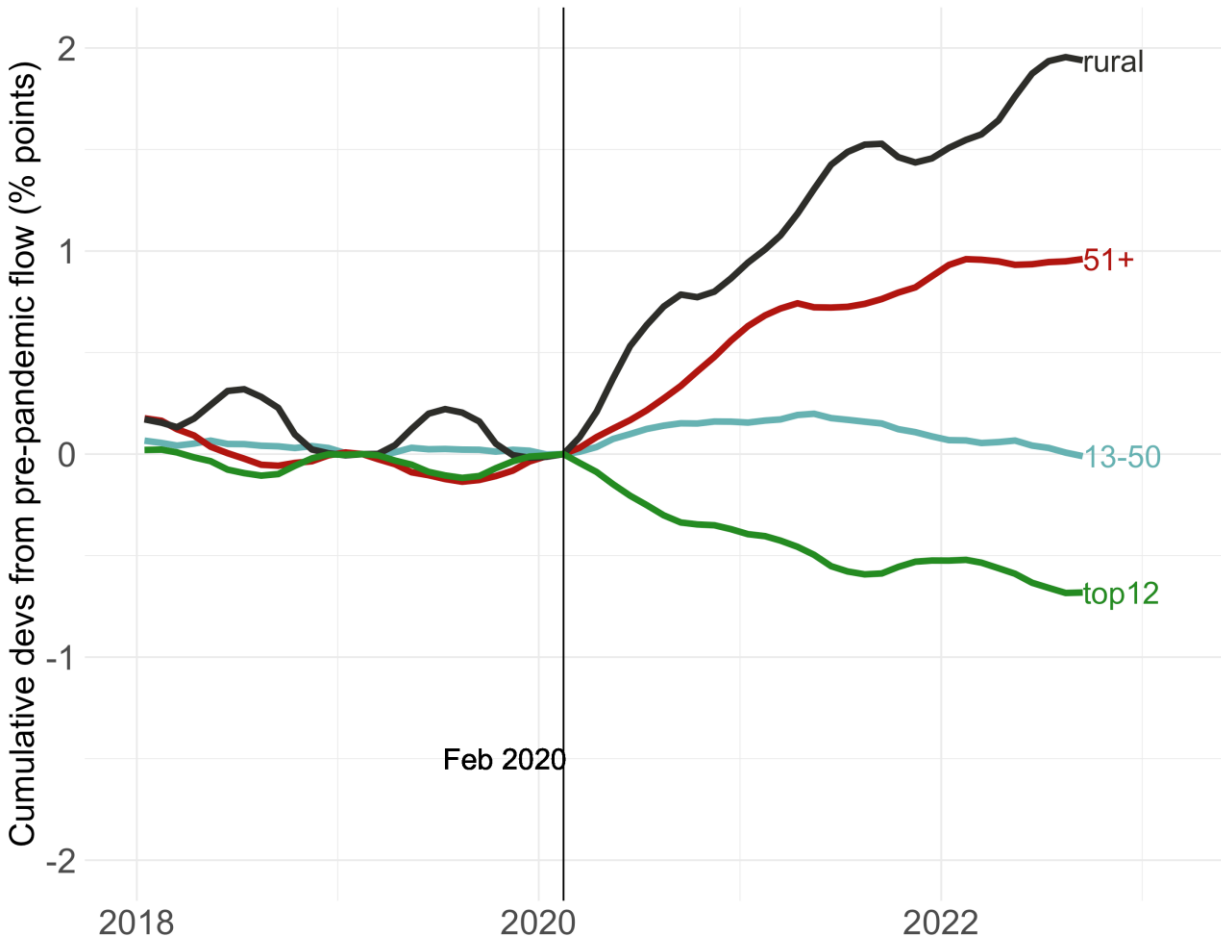


**Notes:** The figure shows Zillow's home value index grouped by population density. Panel A pools the top 12 metros by population, panel B contains metros 13-50. and panel C gives the remaining metros (we have data on 365 in total). Zipcodes are grouped by population density or presence in a CBD. A population weighted average is taken across all zipcodes in each bucket, and each aggregated index is normalized such that Feb 2020 = 100. Density groups are given by high = top 10%, mid = 50-90<sup>th</sup> percentile, low = 0-50<sup>th</sup> percentile and populations are taken from the 2015-19 5-yr ACS. The city center is defined by taking all zipcodes with centroids contained within a 2 km radius of Central Business District coordinates taken from Holian (2019). Sources: Zillow, Census Bureau, Holian (2019). Data: Jan 2018 – Jun 2022.

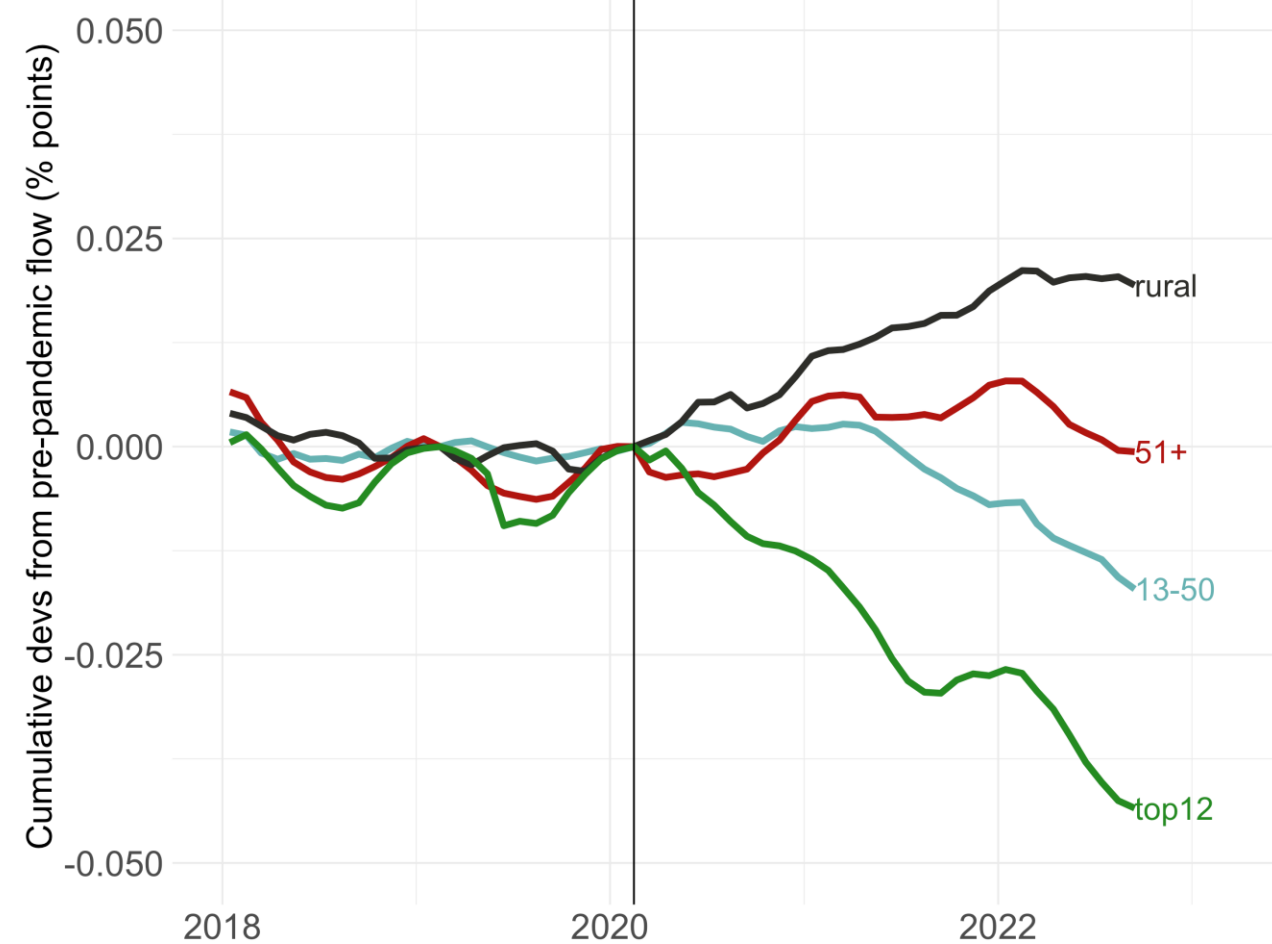


# People and businesses flowed from bigger metros to smaller ones

(a) Cumulative net population inflows, % of total pop



(b) Cumulative net establishment inflows, % of total stock



**Notes:** The left panel shows monthly net population inflows divided by 2019 population from the 2015-19 5-yr ACS. We multiply the number of household moves by the average household size of moving families from Data Axle, 1.7, and add the number of individual moves to calculate total population flows. The right panel shows monthly net establishment inflows divided by the 2018 establishment stock given by the 2018 Zipcode Business Patterns. Series are plotted as deviations from the Feb 2020 value. Metro areas are grouped by population size. Flows are summed across all metros in a bucket before dividing by total population. All zip codes not contained in metro areas are considered rural. The population sizes of the different buckets are: top 12 metros=94.5m, metros 13-365=176m, rural=57m. Sources: USPS, Census Bureau. Data: Jan 2018 – Sep 2022.

# Feedback and mentoring advantages to being in person a few days a week



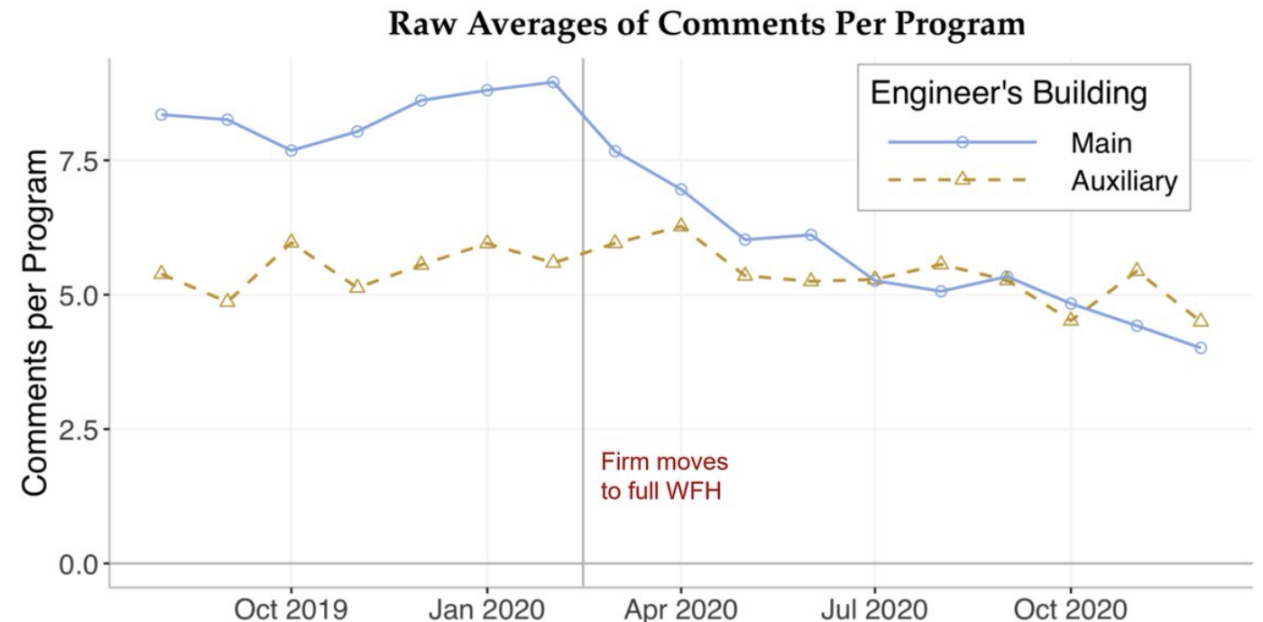
Nick Bloom  
@I\_Am\_NickBloom



New paper: proximity supports feedback.

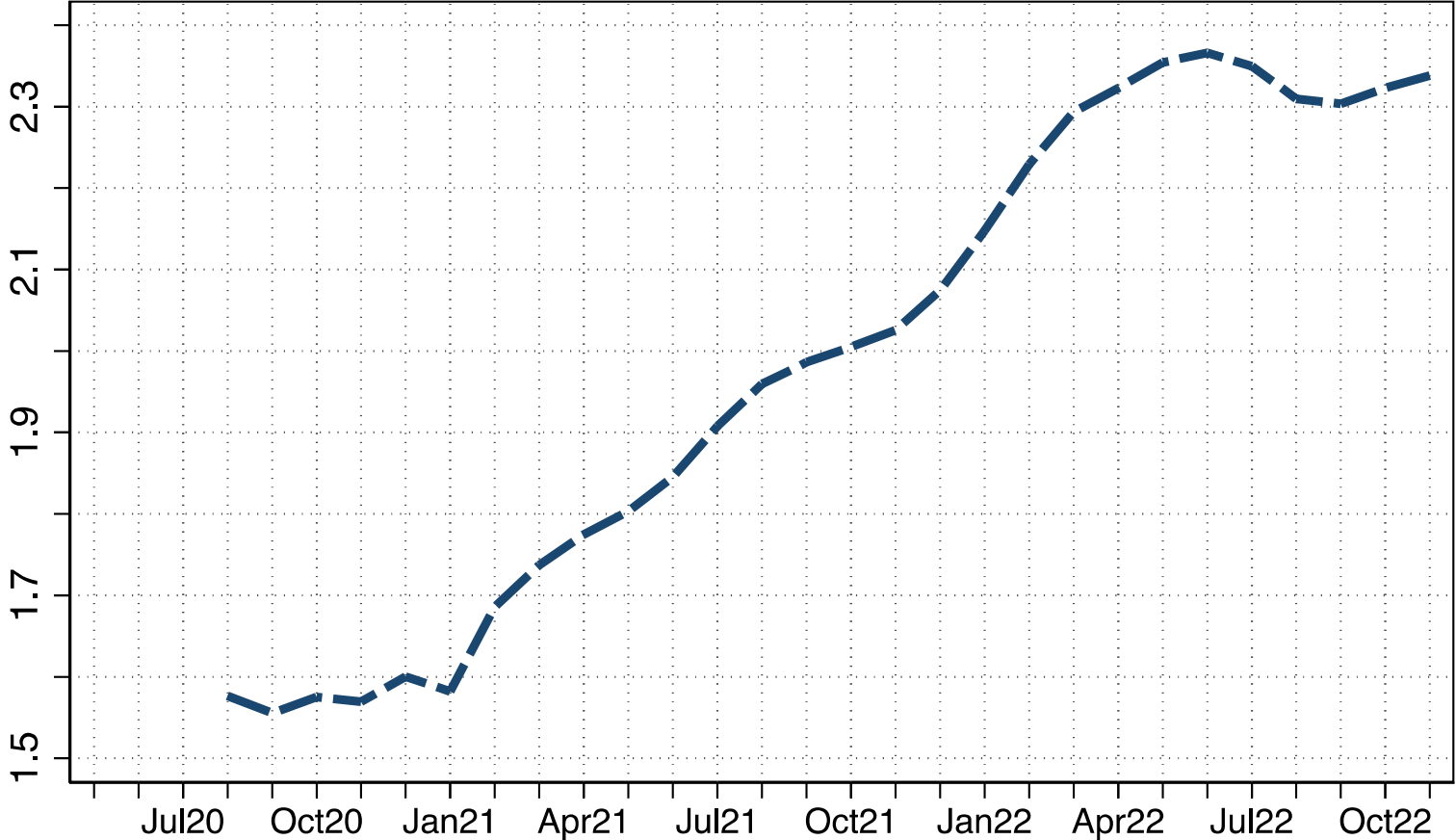
A big tech firm had two buildings on one campus. Pre-pandemic employees got more feedback if they were in the same main building as their team. @WFH no difference: feedback for all employees was the same as being in the auxiliary building.

**Figure 3: Proximity to Non-Teammates and Online Feedback**



# Employers plans for those that can WFH stabilized at about 2.3 days per week, matching what the average graduate employees wants

Average Days per Week Working From Home  
As the Pandemic Ends: Employer Plans



Sample: Workers able to work from home

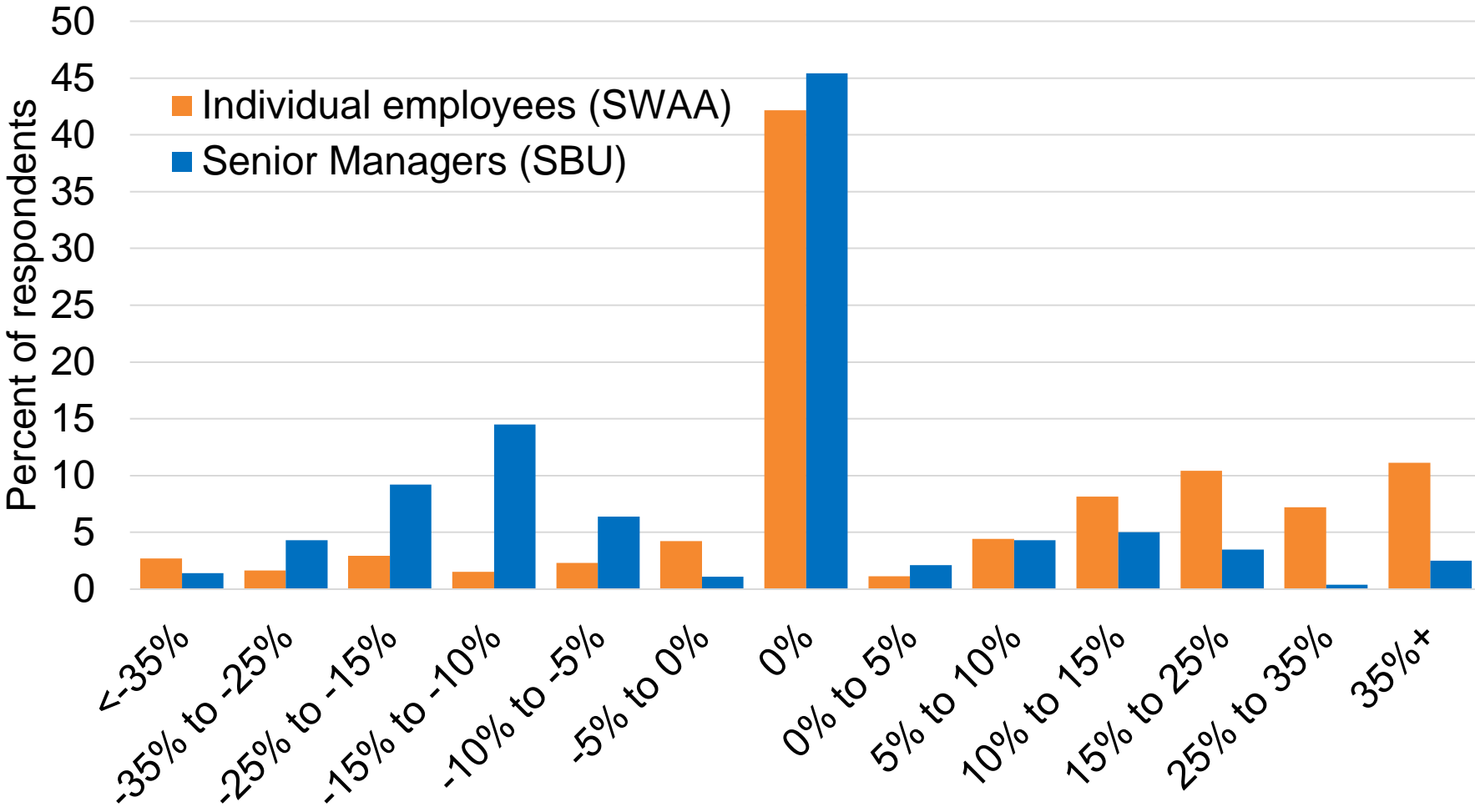
**Responses to the question:**  
- *As the pandemic ends, how often is your employer planning for you to work full days at home?*

**Sample:** Data are from all SWAA waves, covering August 2020 to October 2022. The sample includes all respondents who reported their employer’s plans for WFH as the pandemic ends and who have work-from-home experience during the pandemic (thus able to work from home). 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 2019 or 2021 to match Current Population Survey on age, sex, education, and earnings.

**N = 77,252 (able to work from home)**

# Employees believe WFH increases productivity by 7.4% while managers believe it reduces it by 3.5%

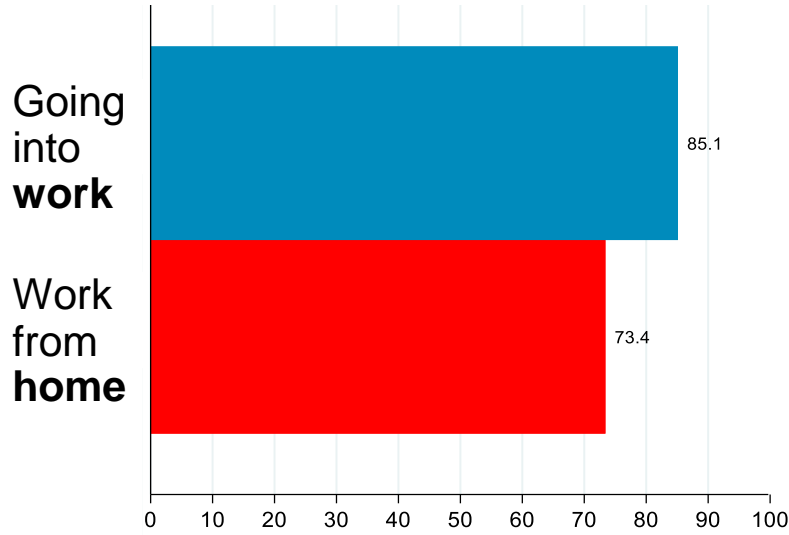
Estimated effect of working from home on productivity?



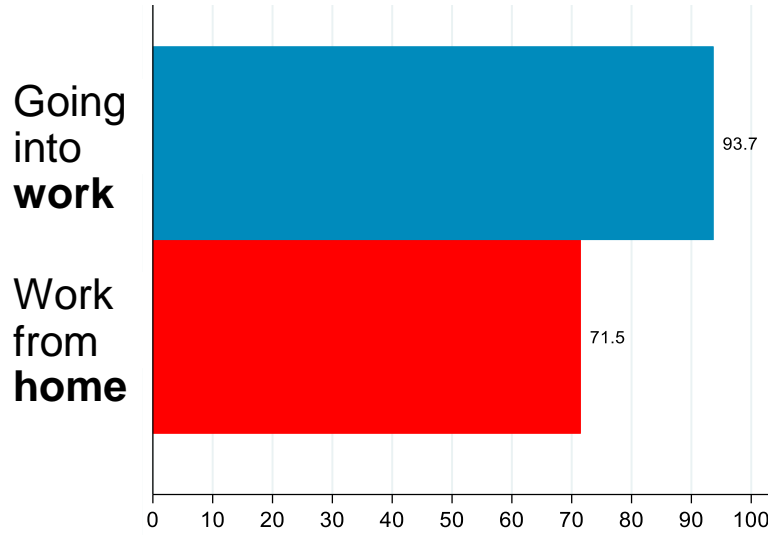
**Note:** SWAA participants asked “How much less/more efficient are you working from home than on business premises?” from the July to September 2022 reweighted to match all US employees 20 to 64. N=13,082; [www.wfhresearch.com](http://www.wfhresearch.com)  
SBU participants asked: “How much less/more productive would employees [who work from home at least one day per week] be if working on business premises five days a week?” reweighted to match all US firms. N=282. [www.atlantafed.org/SBU](http://www.atlantafed.org/SBU)

# WFH employees save 9 minutes a day on less personal grooming

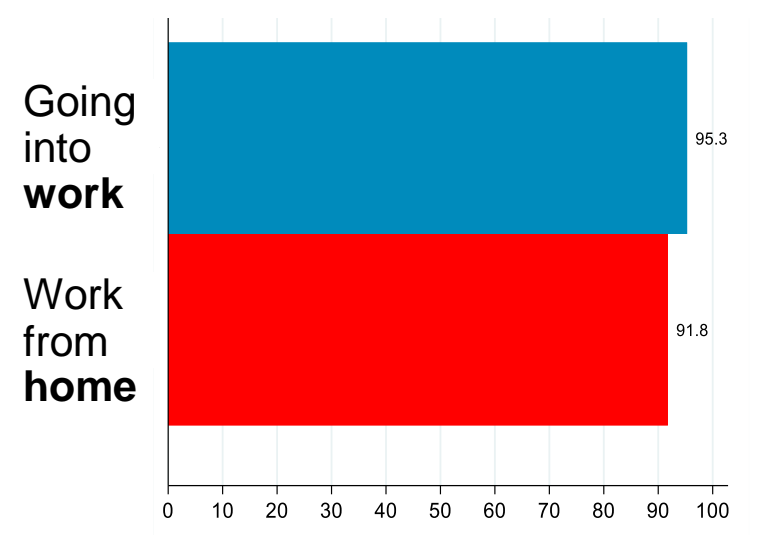
Percent who **shower or bathe** when:



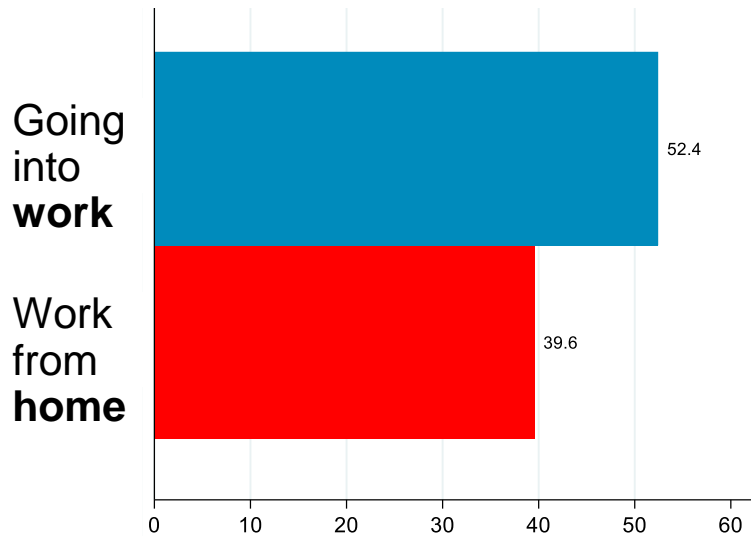
Percent who **wear fresh clothes** when:



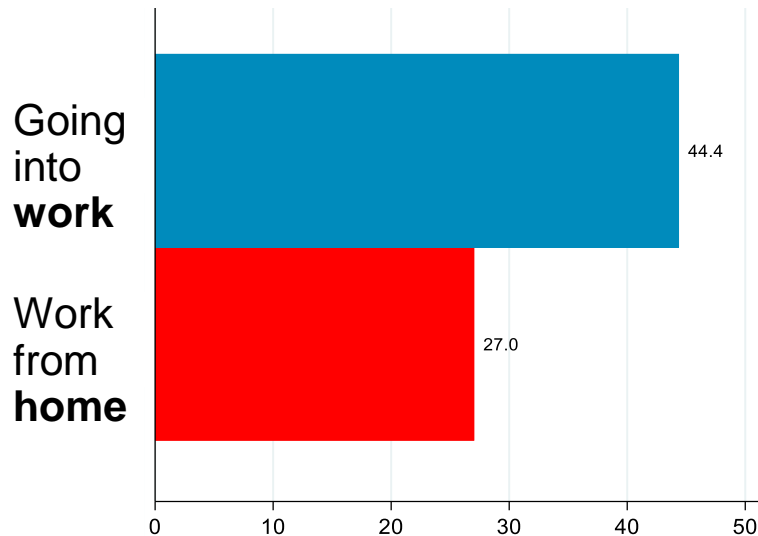
Percent who **brush their teeth** when:



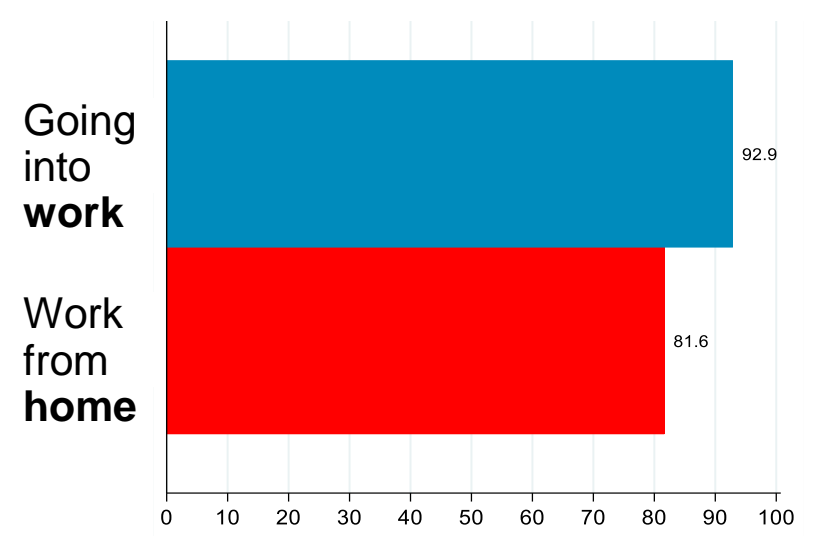
Percent who **shave** when:



Percent who **put on makeup** when:



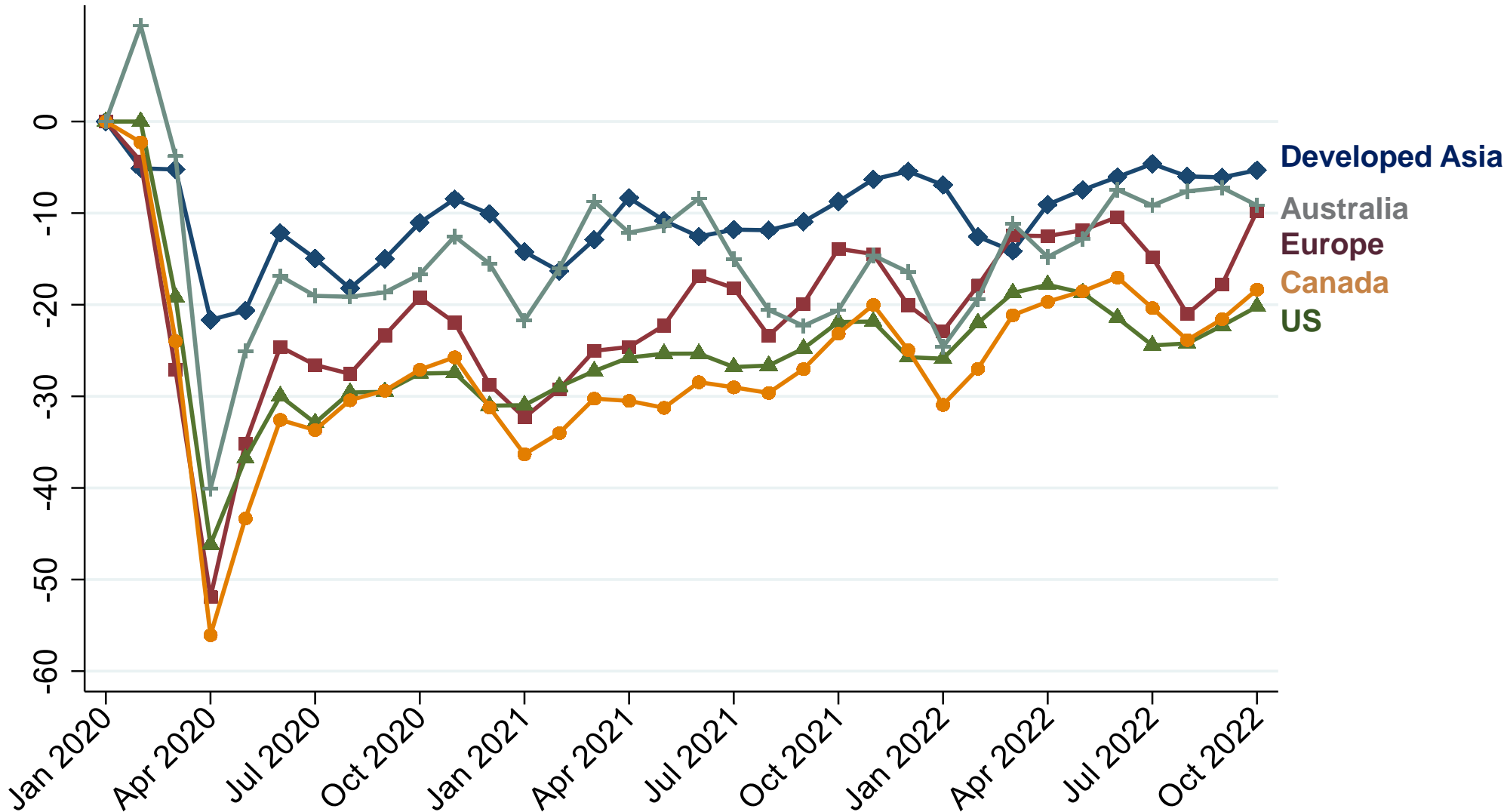
Percent who **use deodorant** when:



# US & Canada highest levels of WFH, Europe, Australia and Asia lower

## Workplace Trips (so the drop is a measure of WFH)

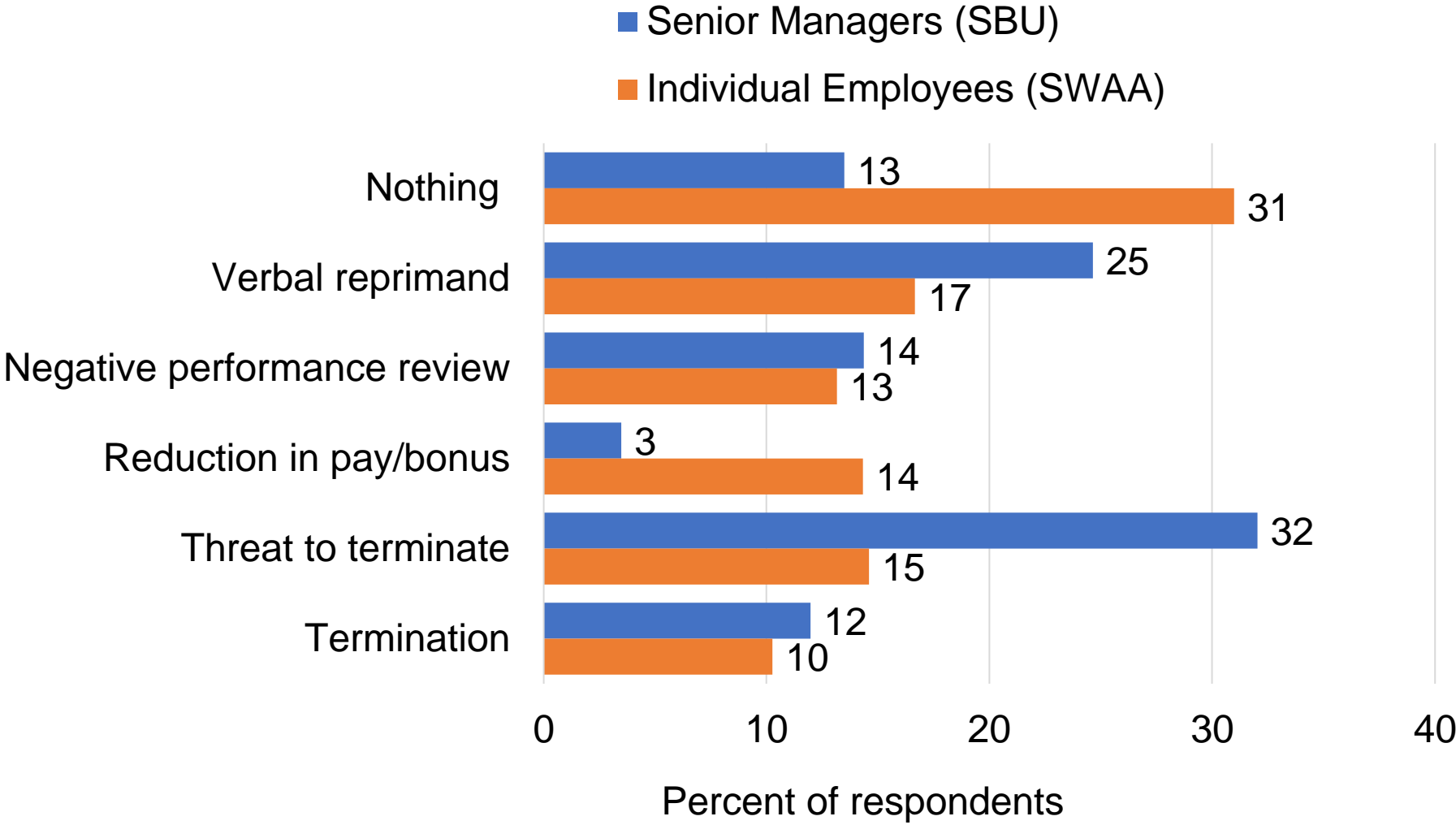
Google cellphone workplace mobility in % deviation from Jan 2020



**Source:** Data from Google Workplace Cellphone Mobility Data <https://www.google.com/covid19/mobility/> Regions average of largest available countries: Developed Asia=KR+JP+TW+HK+SG, and Europe=GB+FR+DE+IT+ES+NL+SE+PL. Deviations from the Jan 3 – Feb 6 2020.

# And before moving on worth noting enforcement is not easy.....

## What happens when employees stay home on office days



**Notes:** SWAA participants asked “How has your employer responded to employees who work on business premises fewer days than requested?” over June to September 2022 re-weighted to match US working population 20 to 64. N= 17,875. [www.wfhresearch.com](http://www.wfhresearch.com)  
SBU participants asked “Currently, how does your firm deal with employees who work fewer days on business premises than required by company policy?” in September 2022 reweighted to match US firms. N= 335. [www.atlantafed.org/SBU](http://www.atlantafed.org/SBU)