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ABSTRACT

We establish three facts about work from home (WFH) in the United States. First, employees WFH more often at younger firms – almost twice as often at firms founded after 2015 than at firms founded before 1990. Second, employees working under younger CEOs have higher levels of WFH. The average WFH rate is 1.4 days per week when the CEO is under 30, compared to 1.1 days when the CEO is 60 or older. Third, the self-employed WFH more than twice as often as wage-and-salary employees. These facts highlight the importance of organizational and managerial attributes for the prevalence of WFH.

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1 Introduction

We document three facts about work from home (WFH) in the United States. First, employees WFH more often at younger firms – almost twice as often at firms founded after 2015 as compared to those founded before 1990. Second, employees WFH more often at firms with younger CEOs. The average WFH rate is 1.4 days per week when the CEO is under 30, compared to 1.1 days when the CEO is 60 or older. Third, the self-employed WFH two-to-three times as often as wage and salary employees, depending on employer size. Because the self-employed comprise around one-tenth of the US workforce, they account for a large share of all WFH days in the economy. These facts highlight the influence of organizational and managerial attributes on the prevalence of WFH.

The COVID-19 pandemic triggered a global rise in WFH with large, enduring differences in WFH rates across countries (Aksoy et al., 2022, 2025a; Zarate et al., 2025). Figure 1 draws on the Global Survey of Working Arrangements to illustrate this point. Among college graduates, WFH rates range from just over 0.5 days a week in some Asian countries to about 1.7 days in the UK and US.

Our evidence below pertains to US outcomes in the post-pandemic era, after WFH rates settled at much higher levels than before the pandemic (Barrero et al., 2023). See Figure 2, which presents time-series information on full WFH days as a percentage of all paid workdays in the United States. WFH rates surged abruptly in reaction to the pandemic, fell back in the latter half of 2020, continued to fall in 2021 and 2022, and then stabilized, fluctuating in a relatively narrow band since 2023. As of December 2025, full WFH days account for 27% of paid workdays in the United States.

The rise of WFH has drawn attention to the value of flexible working arrangements. It altered commuting and time-use patterns, with implications for labor supply and worker welfare (Mas and Pallais, 2017; Aksoy et al., 2023, 2025b). It also impacted residential location choices and the spatial distribution of economic activity, with knock-on effects for city centers and commercial real estate (Delventhal et al., 2023; Gupta et al., 2024; Akan et al., 2025). Our paper contributes to this body of research by showing how WFH rates vary with the *organizational attributes* of firms rather than across geographies, industries, workers, and jobs. It complements prior work on the return-to-office policies of publicly listed firms, including Flynn et al. (2025) and Ding and Ma (2023).

2 Data

We use data from the Survey of Working Arrangements and Attitudes (SWAA), a monthly online survey of roughly 2,500 to 10,000 U.S. residents aged 20–64 (Barrero et al., 2021). In addition to asking about the respondent’s age, gender, education, earnings, industry, occupation, and employer characteristics, the SWAA elicits information about working arrangements. For each day in the prior week, respondents report whether they worked a full paid day (six or more hours) and, if so, their main place of work (home or employer or client premises). We use these data to measure the number of full paid WFH days in the prior week, ranging from 0 to 5. We designate workers as *fully remote* if they WFH at least five full paid days in the prior week. The SWAA also asks whether respondents are wage and salary employees or are “self-employed and run my own business.”

For wage and salary employees, the SWAA elicits data on firm size by asking: “Counting all of its locations, how many employees work for your primary employer?” The response options are: fewer than 10, 10–49, 50–99, 100–499, 500–4,999, or 5,000+ employees. It elicits firm age by asking when the firm first hired a paid employee. And it asks “What age is your employer’s CEO?” with response options for under 30, 30–39, 40–49, 50–59, and 60+.

Our SWAA analysis sample excludes “speeders” and respondents who fail attention-check questions. The data are re-weighted to match the share of persons in the 2010–2019 Current Population Survey (CPS) in cells defined by age–sex–education–earnings. To focus on the post-pandemic era, we use SWAA waves from January 2024 through December 2025.

3 Results

Figure 3 shows that WFH days per week are higher among employees of younger firms. WFH rises steadily as we move from older cohorts of firms to younger ones founded in the 2000s and 2010s. WFH rates are highest for firms founded around the pandemic (especially the 2020 cohort). Later cohorts show some pullback, but their employees continue to WFH at rates that are about 50% higher than the employees of firms founded before 1990.

These patterns suggest that newer firms find it easier to operate with remote-friendly practices. They may adopt WFH-enabling technologies and workflows from the outset, while older firms often face higher costs in changing long-established routines. In fact, many firms founded around 2020 had to start out operating remotely, which may be why they still have higher WFH rates than earlier and later cohorts.

Figure 4 links WFH patterns to a salient leadership characteristic: CEO age. Average WFH days decline monotonically as CEO age rises. Firms led by CEOs under 30 have an

average of 1.4 WFH days per week, compared with 1.1 days at firms led by CEOs who are 60 or older. In an unreported regression of “Full Days WFH per Week” on “CEO age in years,” the estimated coefficient is -0.007 (s.e. 0.002), implying that WFH falls slightly as CEO age increases. However, this CEO-age relationship is no longer statistically significant once we control for firm-age effects (using the same firm-age categories as in Figure 3). By contrast, the firm-age pattern remains statistically significant even after controlling for CEO age.

We also find that WFH rates are higher at firms with female CEOs, but this difference is not statistically significant. A simple regression of “Full Days WFH per Week” on an intercept term and “CEO = Female” with no controls yields an estimated coefficient of 0.078 with a standard error of 0.053.

Next, we consider how WFH intensity varies with employer size in Figure 5. Across all employer sizes, self-employed workers report two to three times more WFH days per week than wage-and-salary employees. They are also more than three times as likely to work fully remotely. Among wage-and-salary employees, the differences by employer size are modest: both WFH and fully remote work are slightly lower at mid-sized firms (10 to 100 employees). These size-related differences are small compared with the much larger gap between the self-employed and wage-and-salary employees.

Finally, Figure 6 shows WFH rates by CEO age and gender. The figure makes clear that, within CEO age groups, WFH rates are very similar for male and female CEOs. While firms headed by female CEOs have higher WFH rates on average, that pattern is because female CEOs are younger on average and not because CEO gender is independently associated with WFH rates. Tables 1 and 2 support this interpretation, showing that firms headed by female CEOs have somewhat higher WFH rates, but this pattern is not statistically significant when controlling for CEO age. WFH rates tend to fall with CEO age for both male and female CEOs, as shown in Table 2.

Taken together, Figures 3 to 6 suggest that WFH is more prevalent in organizations that are more amenable to new technologies and work practices; namely, at younger firms, those with young CEOs, and among self-employed workers. Coordination and agency problems “within the firm” are presumably not an issue for self-employed persons, which may partly explain their high WFH rates.

4 Conclusion

Our findings yield several messages. First, they caution against interpreting aggregate WFH trends as reflecting a uniform shift across all workplaces. Much of the long rise of WFH before 2020 likely reflected shifts towards employment at newer firms, with younger CEOs,

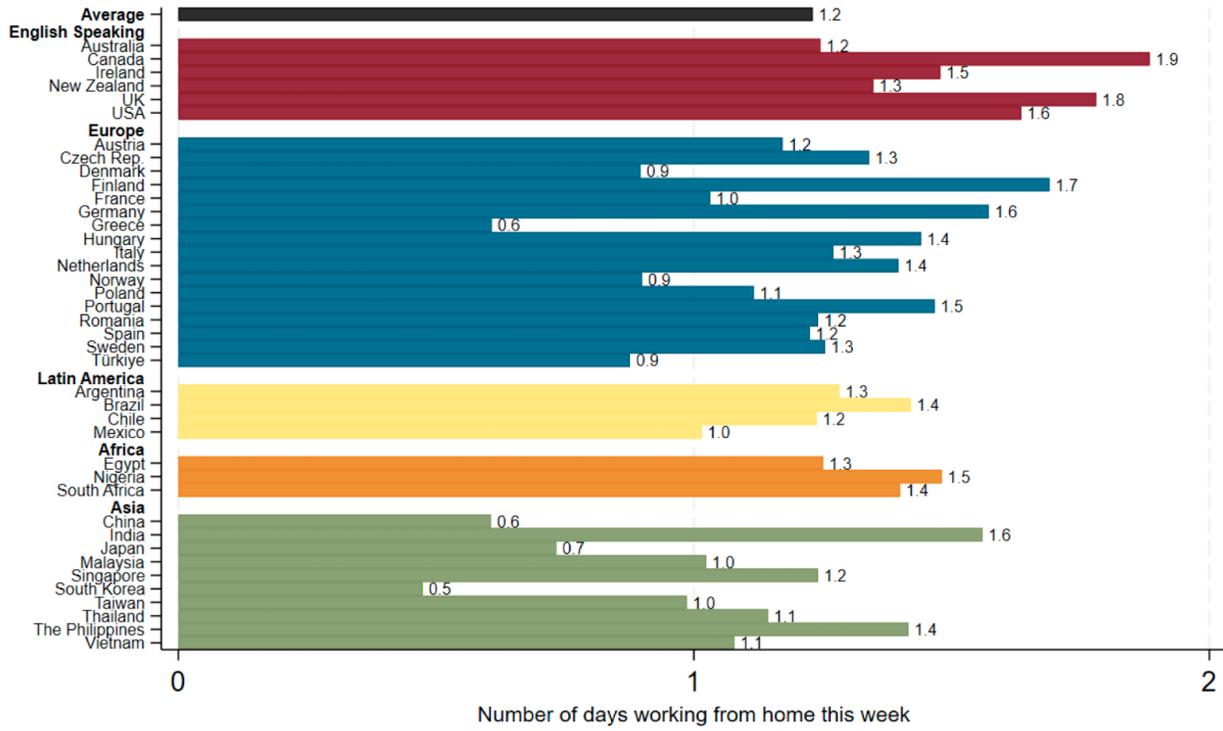
who adopted new ways of doing business to exploit new technologies. Second, the gradient in WFH rates with firm age and CEO age point to management and organizational attributes as important influences on working arrangements. WFH has high amenity value to many workers, but it is also a production and coordination choice. Third, because younger firms and business leaders are potentially more amenable to newer digital tools and management practices, WFH may continue to expand as firms and business leaders turn over. These shifts might occur even as incumbent firms and business leaders maintain strict in-office norms.

Our findings also raises questions about whether, and to what extent, differences in the industry and occupation mix of employment can account for WFH patterns by firm and CEO age and for the much higher WFH rates among the self-employed. Future work could combine richer firm-level data or linked employer-employee records to isolate within-occupation and within-industry differences in WFH intensities, isolating the effect of leadership characteristics, firm age, and other organizational attributes on WFH adoption.

References

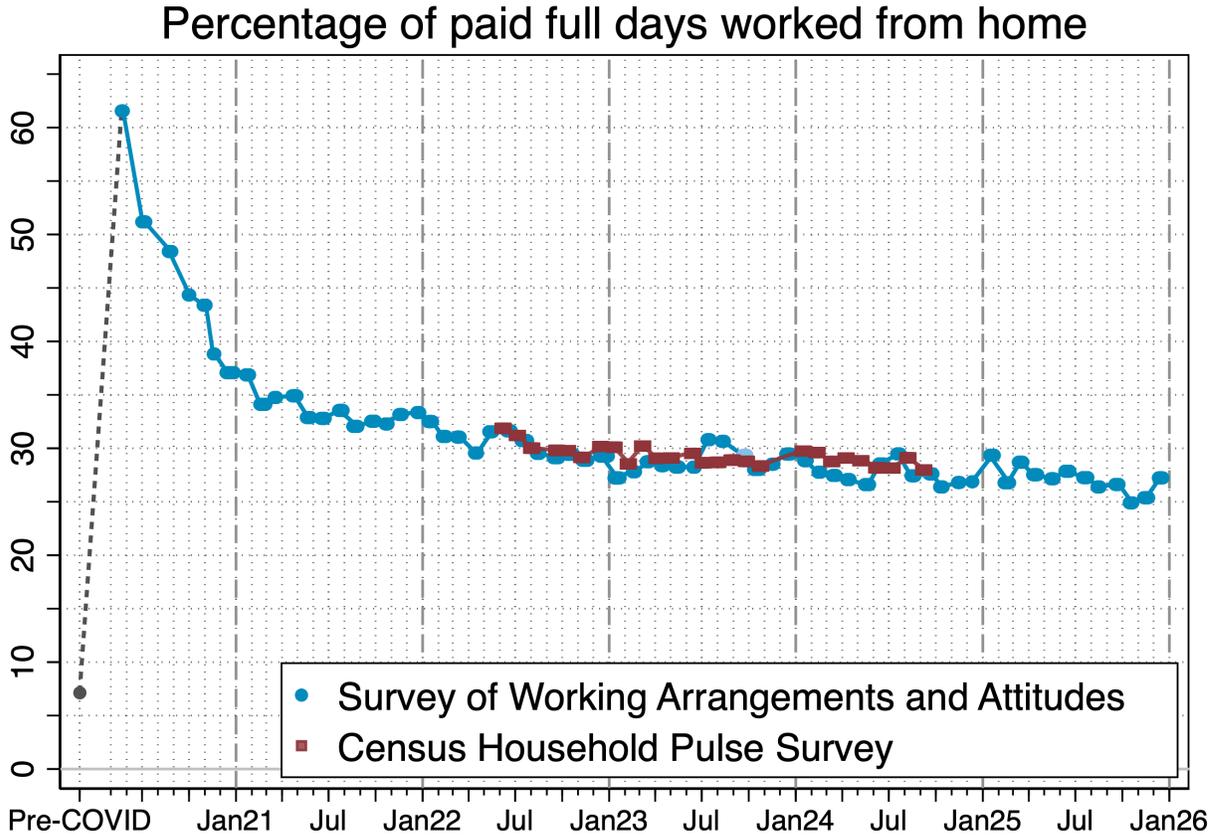
- Akan, M., Barrero, J. M., Bloom, N., Bowen, T., Buckman, S., Davis, S. J., and Kim, H. (2025). The new geography of labor markets. NBER Working Paper 33582.
- Aksoy, C. G., Barrero, J. M., Bloom, N., Davis, S. J., Dolls, M., and Zarate, P. (2022). Working from home around the world. *Brookings Papers on Economic Activity*.
- Aksoy, C. G., Barrero, J. M., Bloom, N., Davis, S. J., Dolls, M., and Zarate, P. (2023). Time savings when working from home. *AEA Papers Proceedings*. 597-603.
- Aksoy, C. G., Barrero, J. M., Bloom, N., Davis, S. J., Dolls, M., and Zarate, P. (2025a). The global persistence of work from home. *Proceedings of the National Academy of Sciences*, 122(27):e2509892122.
- Aksoy, C. G., Bloom, N., Davis, S. J., Marino, V., and Ozguzel, C. (2025b). Remote work, employee mix, and performance. Working Paper 33851, National Bureau of Economic Research.
- Barrero, J. M., Bloom, N., and Davis, S. J. (2021). Why working from home will stick. NBER Working Paper 28731, National Bureau of Economic Research.
- Barrero, J. M., Bloom, N., and Davis, S. J. (2023). The evolution of work from home. *Journal of Economic Perspectives*, 37(4):3–24.
- Delventhal, M. J., Kwon, E., and Parkhomenko, A. (2023). Work from home and urban structure. *Built Environment*, 49(3):503–524.
- Ding, Y. and Ma, M. S. (2023). Return-to-office mandates. Working Paper.
- Flynn, S., Ghent, A. C., and Nair, V. (2025). Determinants and consequences of return to office policies. Working Paper.
- Gupta, A., Mittal, V., and Van Nieuwerburgh, S. (2024). Work from home and the office real estate apocalypse. Working Paper.
- Mas, A. and Pallais, A. (2017). Valuing alternative work arrangements. *American Economic Review*, 107(12):3722–3759.
- Zarate, P., Barrero, J. M., Bloom, N., Davis, S. J., Dolls, M., and Aksoy, C. G. (2025). Why working from home varies across countries and people. *Proceedings of the National Academy of Sciences*, 122(51):e2529036122.

Figure 1: Mean Work-from-Home Days Per Week by Country



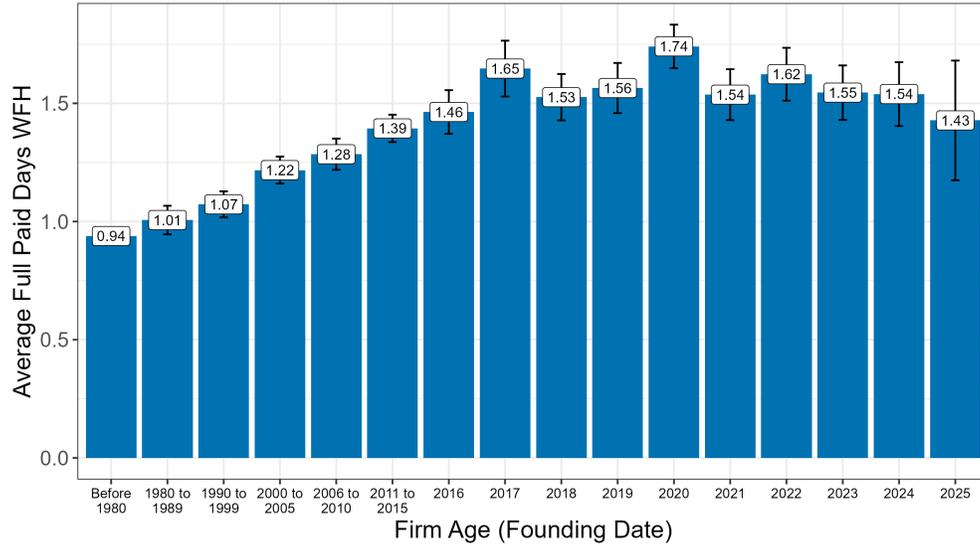
Notes: Responses to: “For each day last week, did you work 6 or more hours, and if so where?”. N = 16,422 college-educated workers in 40 countries surveyed in November 2024 to February 2025. Source: G-SWA.

Figure 2: US Mean Work-from-Home Days Per Week Over Time



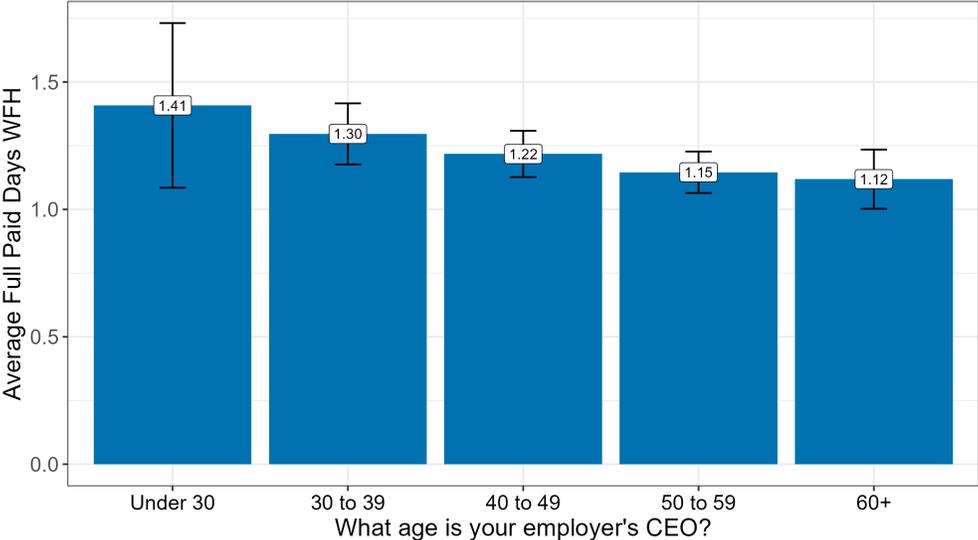
Notes: Source: Responses to the questions: For each day last week, did you work a full day (6 or more hours), and if so where? (SWAA) In the last 7 days, have you... teleworked or worked from home? (HHP) For each wave, we compute the percent of paid full days worked from home in the SWAA and Household 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 = 271,229 (SWAA) N = 923,587 (HHP)

Figure 3: Average WFH Rates by Firm Age



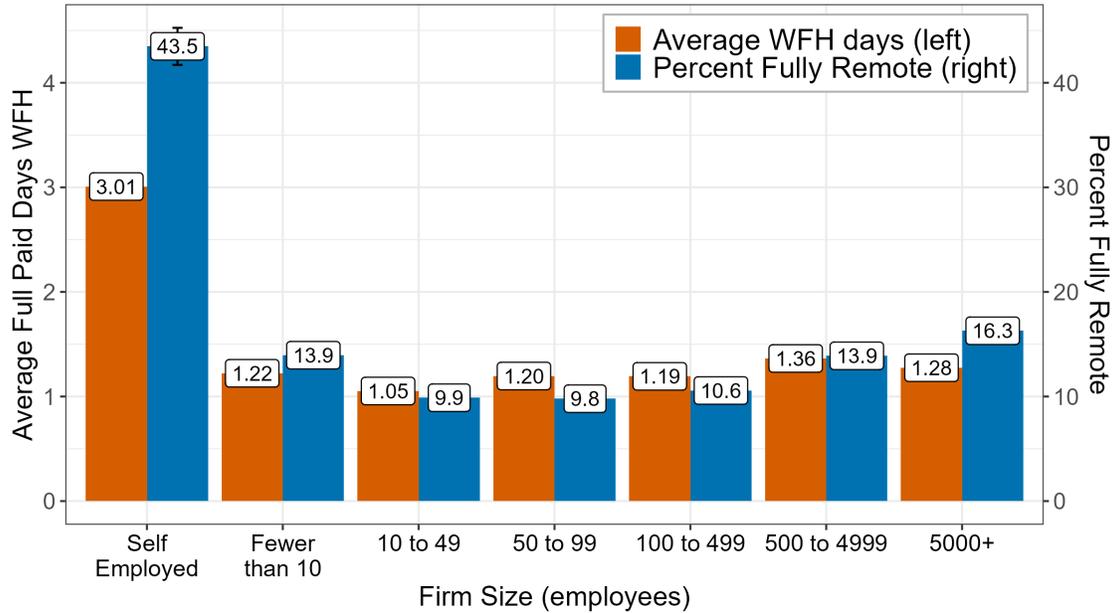
Note: Based on $N = 76,716$ SWAA responses from January 2024 to December 2025. The sample includes wage and salary employees who worked 4+ days during the reference week. Based on responses to the questions 1) “When did your employer hire its first employee (at any location)?” 2) “For each day last week, did you work a full day (6 or more hours), and if so where?” Overall Average WFH days for the entire sample of firm age graph: 1.2231 ($N=76,716$). Average WFH days for just the firms that started in 2021-2025: 1.55502 ($N=8,580$)

Figure 4: Average WFH Rates by CEO Age



Note: Based on $N = 9,469$ SWAA responses from 2025. The sample includes wage and salary employees who worked 4+ days during the reference week. Based on responses to the question: “For each day last week, did you work a full day (6 or more hours), and if so where?”

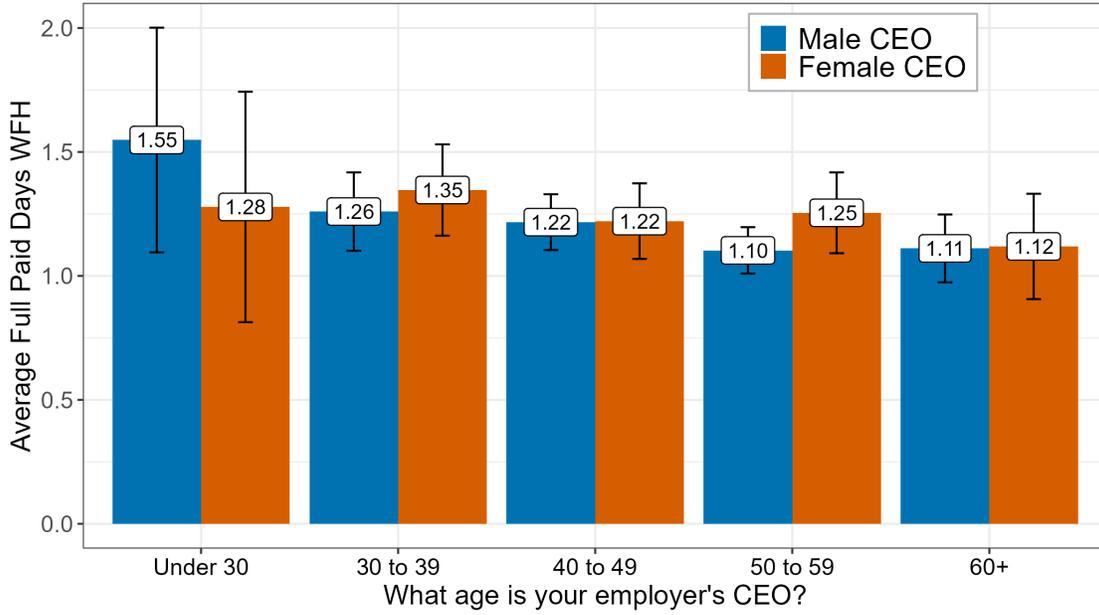
Figure 5: Average WFH Rates by Employer Size



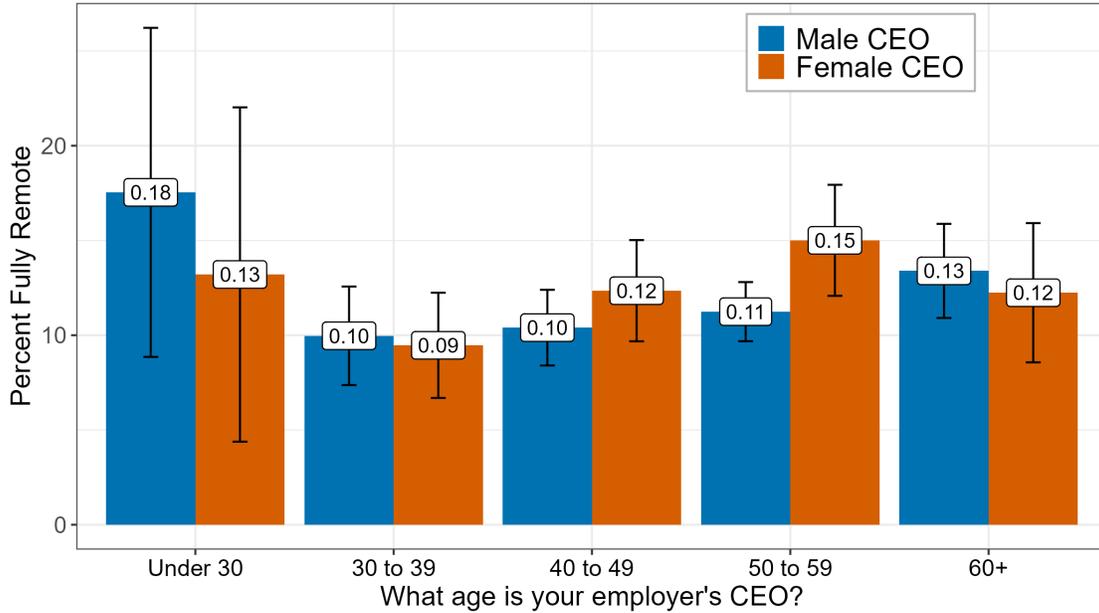
Note: Based on $N = 82,729$ SWAA responses from January 2024 to December 2025. The sample includes wage and salary employees who worked 4+ days during the reference week. Based on responses to the questions 1) “Counting all of its locations, how many employees work for your primary employer?” 2) “For each day last week, did you work a full day (6 or more hours), and if so where?” Left axis reports the average full paid days WFH, and the right axis reports the share working fully remote (5+ days).

Figure 6: Average WFH Rates by CEO's Age and Gender

(a) Average Full Paid Days WFH



(b) Percent Fully Remote



Note: Based on $N = 9,442$ SWAA responses from 2025. The sample includes wage and salary employees who worked 4+ days during the reference week. Based on responses to the question “For each day last week, did you work a full day (6 or more hours), and if so where?” Left axis reports the average full paid days WFH, and the right axis reports the share working fully remote (5+ days).

Table 1: Regressions of Employee WFH Intensity on CEO Age and Gender

	(1)	(2)	(3)	(4)
	Paid Days WFH		1(Fully Remote)	
CEO’s Characteristics:				
Female	0.060 (0.054)	0.066 (0.053)	0.014 (0.009)	0.014 (0.009)
Aged 30 to 39	-0.145 (0.179)	-0.073 (0.182)	-0.061* (0.033)	-0.055 (0.034)
Aged 40 to 49	-0.216 (0.174)	-0.053 (0.178)	-0.047 (0.033)	-0.037 (0.033)
Aged 50 to 59	-0.288* (0.173)	-0.025 (0.179)	-0.034 (0.033)	-0.020 (0.033)
Aged 60+	-0.318* (0.178)	0.016 (0.185)	-0.025 (0.034)	-0.010 (0.034)
Observations	9,442	9,442	9,442	9,442
R ²	0.002	0.025	0.002	0.005
Firm Age F.E.		✓		✓
Firm Age F-Stat		7.608***		1.024

Note: Based on SWAA responses from 2025. The sample includes wage and salary employees who worked 4+ days during the reference week. Based on responses to the question: “For each day last week, did you work a full day (6 or more hours), and if so where?” No additional controls included. Columns (2) and (4) control for firm’s age (founding date), using the same categories as in Figure 3.

Table 2: Regressions of Employee WFH Intensity on CEO Age and Gender, Interacted Specification

	(1)	(2)	(3)	(4)
	Paid Days WFH		1(Fully Remote)	
CEO's Characteristics:				
Female CEO × CEO Aged 30–39	0.068 (0.255)	0.156 (0.256)	-0.037 (0.047)	-0.032 (0.048)
Female CEO × CEO Aged 40–49	-0.057 (0.250)	0.108 (0.251)	-0.009 (0.047)	-0.001 (0.048)
Female CEO × CEO Aged 50–59	-0.024 (0.251)	0.222 (0.254)	0.018 (0.048)	0.028 (0.048)
Female CEO × CEO Aged 60+	-0.159 (0.261)	0.158 (0.264)	-0.010 (0.049)	0.004 (0.050)
Male CEO × CEO Aged Under 30	0.270 (0.331)	0.262 (0.338)	0.043 (0.063)	0.040 (0.063)
Male CEO × CEO Aged 30–39	-0.019 (0.251)	0.031 (0.251)	-0.032 (0.047)	-0.030 (0.048)
Male CEO × CEO Aged 40–49	-0.061 (0.244)	0.091 (0.246)	-0.028 (0.046)	-0.021 (0.047)
Male CEO × CEO Aged 50–59	-0.175 (0.242)	0.083 (0.245)	-0.020 (0.046)	-0.008 (0.046)
Male CEO × CEO Aged 60+	-0.167 (0.247)	0.162 (0.252)	0.002 (0.047)	0.013 (0.048)
Observations	9,442	9,442	9,442	9,442
R ²	0.003	0.026	0.003	0.006
Firm Age F.E.		✓		✓
Firm Age F-Stat		7.61***		0.969

Note: Based on SWAA responses from 2025. The sample includes wage and salary employees who worked 4+ days during the reference week. Based on responses to the question: “For each day last week, did you work a full day (6 or more hours), and if so where?” No additional controls included. Columns (2) and (4) control for firm’s age (founding date), using the same categories as in Figure 3. The omitted category is Female CEO × Aged Under 30.