When Workplace Transformations Travel Together

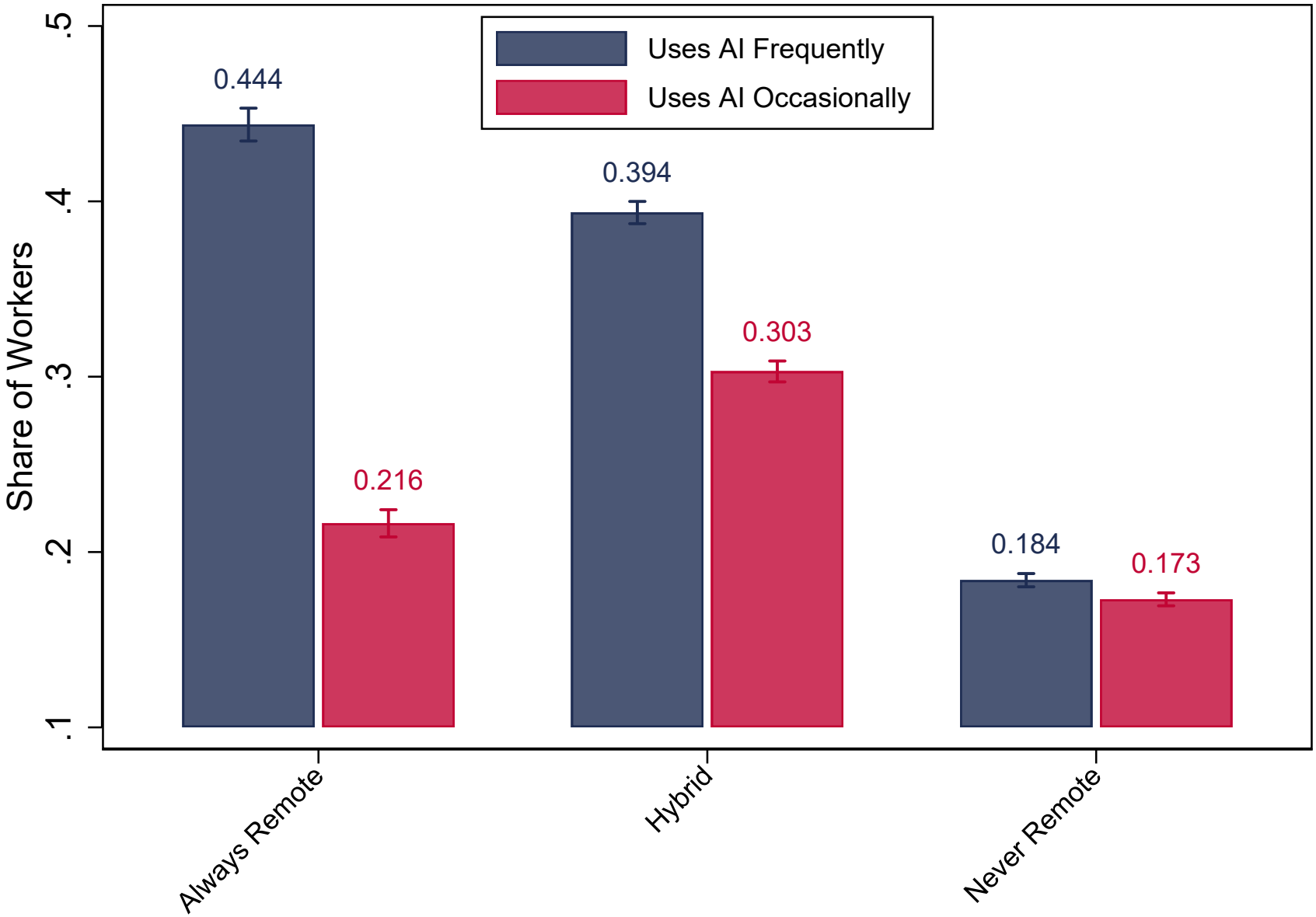
Remote Work and AI Use

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Gallup · Arizona State University · Stanford University

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Remote Workers Use AI Far More Often



Does Location Activate AI Use—or Select the Workers and Jobs That Do?

Activation

- Remote work raises the value of digital coordination.
- Greater autonomy may encourage experimentation and automation.
- A location change should be followed by more frequent AI use.

Selection and bundling

- Digital, information-intensive jobs support both practices.
- Workers, teams, and firms differ in AI readiness.
- The same practices may remain when an individual changes location.

▶ The raw gradient alone cannot distinguish these explanations.

What This Paper Shows

1. **A large between-worker gradient:** fully remote and hybrid workers are 23.8 and 20.3 percentage points more likely than onsite workers to use AI frequently.
2. **A much smaller same-worker relationship:** after worker fixed effects, the estimates are 1.1 and 2.1 points and are statistically indistinguishable from zero.
3. **Specific applications and environments:** meeting assistance is the clearest remote-specific use; remote workers also report more AI integration, clearer strategy, and stronger manager support.

▶ Remote status describes where AI use is concentrated better than what changing location will accomplish.

Where This Fits in the Economics Literature

Remote work: selection and treatment

Selection into remote jobs, causal effects of hybrid schedules, and the role of coworker proximity in productivity and learning.

Barrero, Bloom, and Davis (2023); Emanuel and Harrington (2024); Bloom et al. (2024); Choudhury et al. (2026); Emanuel et al. (2026)

AI diffusion and task-specific returns

Rapid but uneven adoption, with productivity and labor-market effects that vary across tasks, workers, firm size, and occupations.

Noy and Zhang (2023); Brynjolfsson et al. (2025); Bick et al. (2026); Makridis (2026)

Technology–organization complements

Returns to technology depend on organizational capital and complementary work practices; remote capability may precede later AI demand.

Bresnahan, Brynjolfsson, and Hitt (2002); Bloom, Sadun, and Van Reenen (2012); Schubert (2026)

▶ This paper isolates the missing worker-level margin: does AI use change when the same worker changes location?

Gallup Workforce Panel

- Probability-based longitudinal survey of employed U.S. adults.
- Six AI-use waves through Q2:2026: Q2:2024, Q2–Q4:2025, and Q1–Q2:2026.
- AI use was fielded annually in Q2 through Q2:2025 and quarterly thereafter.
- Ages 20–65; Gallup survey weights; standard errors clustered by worker.

61,540

person-wave observations

24,996

unique workers

2.40

mean waves per worker

Outcome and Work-Arrangement Measures

Frequent AI use

- "How often do you use artificial intelligence in your role?"
- Frequent = daily or a few times a week.
- The question covers AI broadly, not generative AI alone.

Remote status

- Fully remote = 100% remote.
- Hybrid = 10% to less than 100% remote.
- Onsite = 0% remote; omitted category.
- Separate indicator for whether the job is remote-capable.

Panel Variation Is Informative but Selective

	Value
Unique workers	24,996
Mean waves per worker	2.40
Share observed at least twice	61.8%
Share ever switching remote status	10.0%
Share switching among repeat respondents	16.2%
Adjacent-wave persistence	
Onsite → onsite	93.7%
Hybrid → hybrid	85.5%
Fully remote → fully remote	87.9%

Notes: The within-worker estimates come from a selected group whose arrangements change; transitions are not randomly assigned.

Cross-Worker Specification

$$\begin{aligned}\text{FrequentAI}_{it} = \alpha + \beta_1 \text{FullyRemote}_{it} + \beta_2 \text{Hybrid}_{it} \\ + \beta_3 \text{RemoteCapable}_{it} + \mathbf{X}'_{it}\gamma + \varepsilon_{it}.\end{aligned}$$

- Begin with the raw comparison.
- Add demographics, reported remote feasibility, SOC-3 occupation, survey-wave, and NAICS-2 industry effects.
- The sequence asks how the remote coefficients change as workers and jobs become more comparable.

Same-Worker Specification

$$\begin{aligned}\text{FrequentAI}_{it} = \beta_1 \text{FullyRemote}_{it} + \beta_2 \text{Hybrid}_{it} \\ + \beta_3 \text{RemoteCapable}_{it} + \phi_j + \psi_k + \mu_i + \lambda_t + \varepsilon_{it}.\end{aligned}$$

- μ_i absorbs stable differences across workers and persistent features of their observed jobs and environments.
- Identification comes from workers observed in more than one remote arrangement.
- SOC-3 occupation, NAICS-2 industry, and survey-wave effects remain in the model.

What the Design Identifies

The cross-worker coefficient

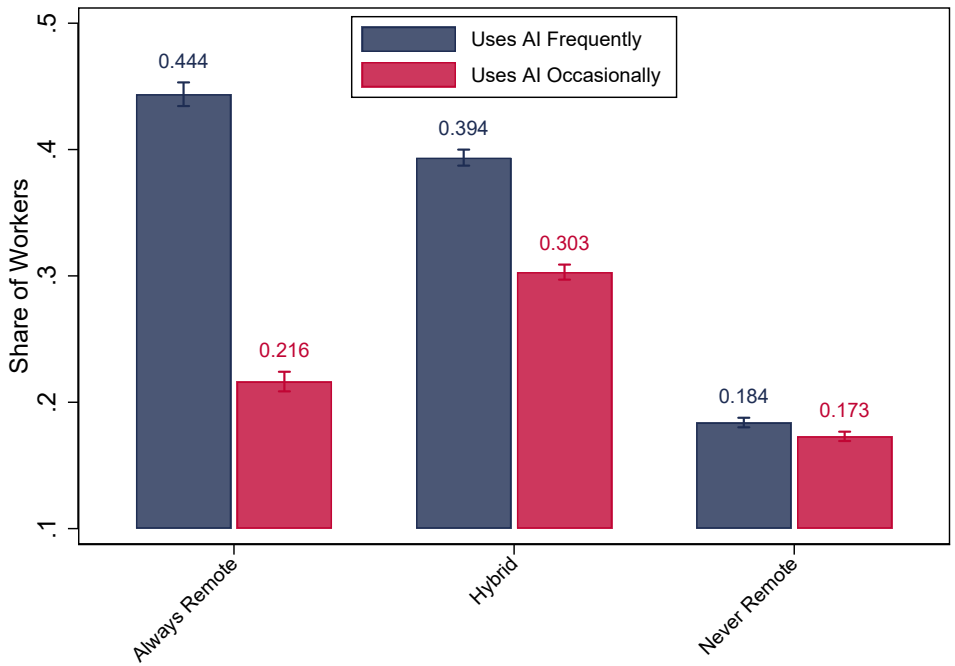
- Combines location with differences in workers, tasks, jobs, teams, and organizations.
- Describes where AI use is concentrated.

The same-worker coefficient

- Removes stable worker heterogeneity.
- Does not remove job changes, manager changes, time-varying access, or reporting error.
- Remains descriptive, not causal.

▶ The estimands answer different questions; neither is a randomized effect of remote-work policy.

The Raw Remote-Work Gradient Is Large



+23.8 pp

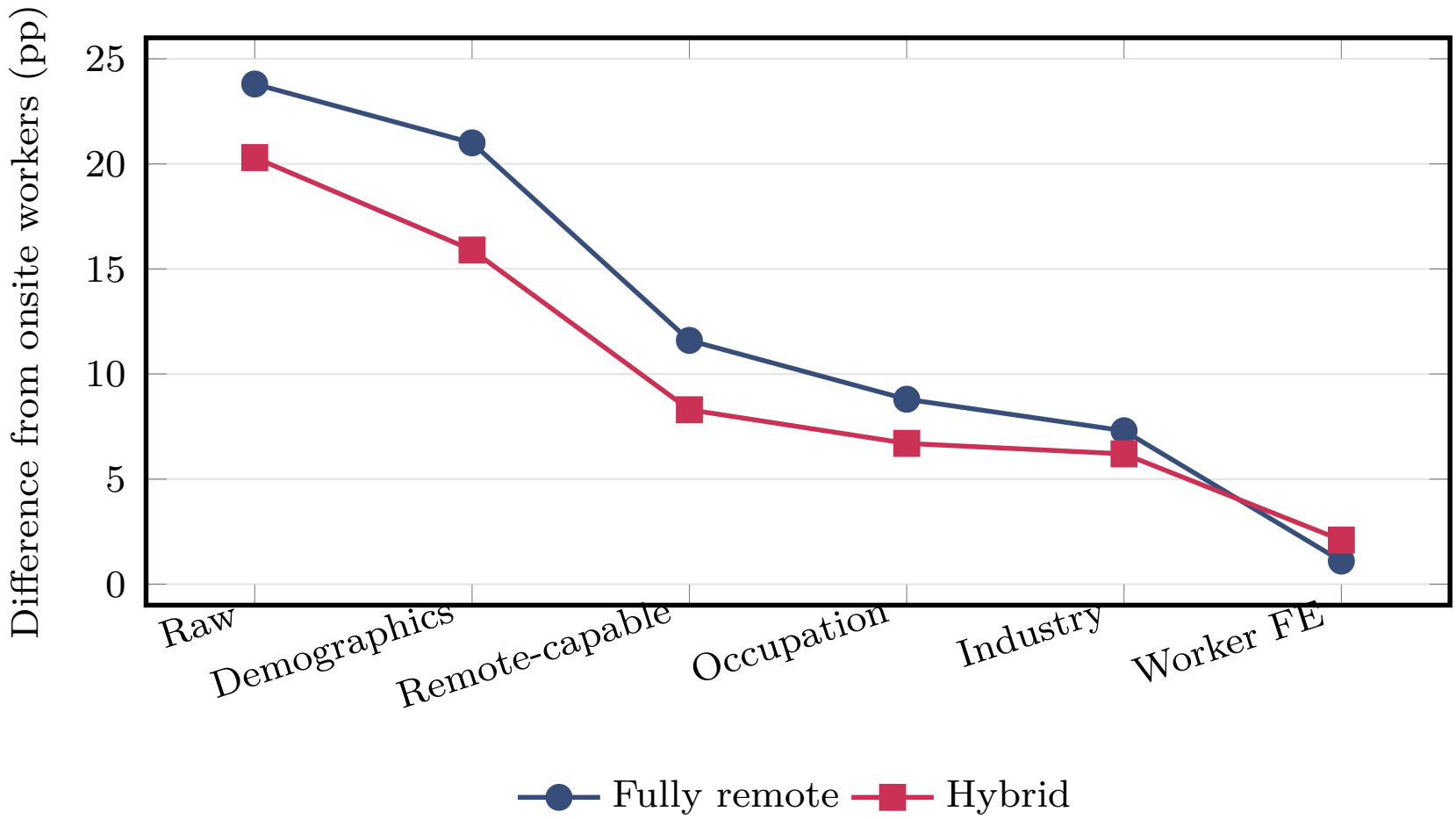
fully remote versus onsite

+20.3 pp

hybrid versus onsite

Raw linear-probability-model differences over the full panel.

The Gap Shrinks With a Saturated Model



Notes: Sequential specifications add demographics, remote feasibility, occupation and wave effects, industry effects, and worker fixed effects.

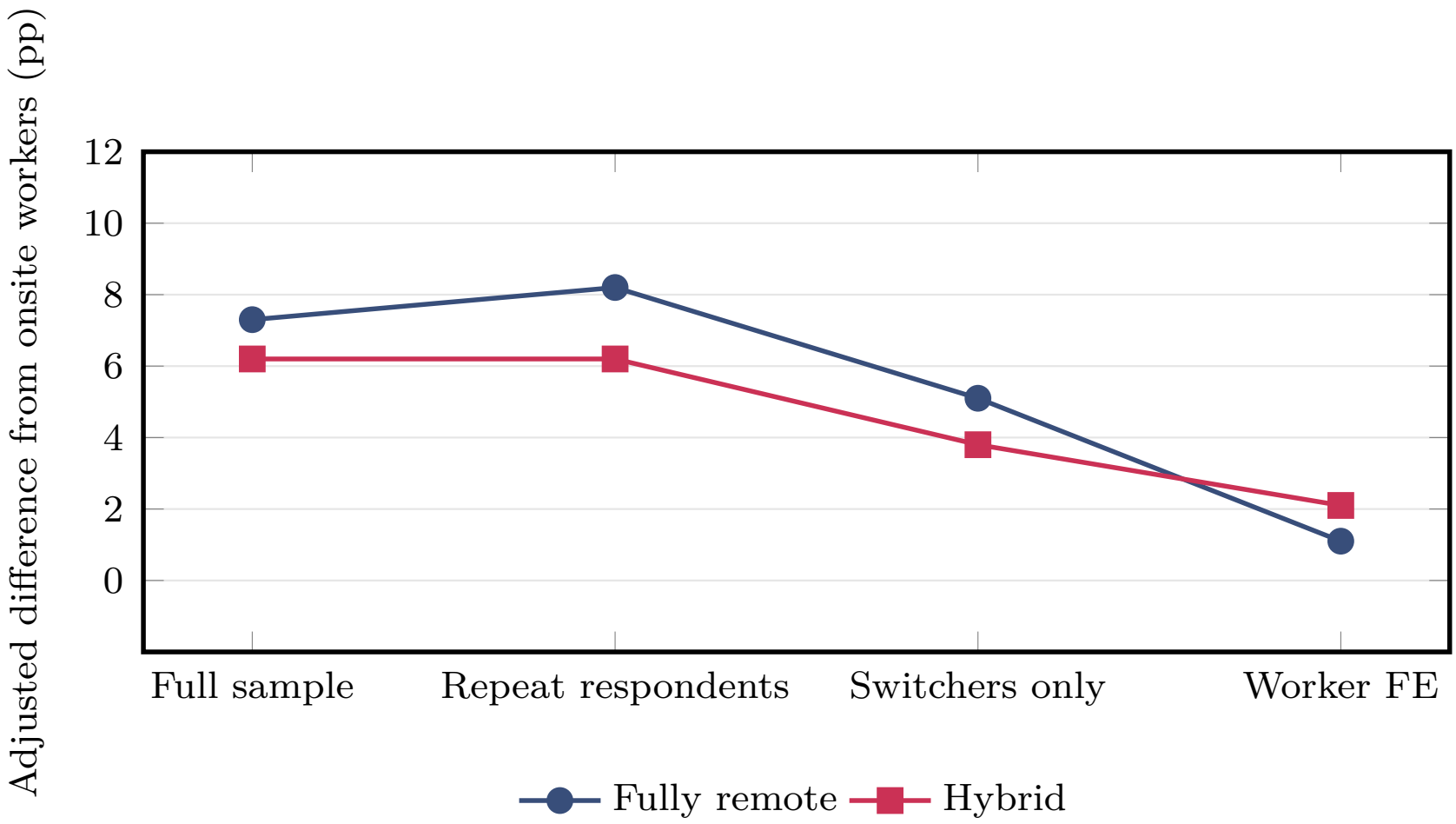
Same-Worker Estimates Are Much Smaller

	Raw	Fully adjusted	Worker FE
Fully remote	.238***	.073***	.011
	(.010)	(.012)	(.021)
Hybrid	.203***	.062***	.021
	(.008)	(.009)	(.013)
Person-wave observations	61,540	61,377	52,376
Occupation, industry, wave FE	No	Yes	Yes
Worker FE	No	No	Yes

Notes: Onsite work is omitted. Fully adjusted models include demographics and remote feasibility. Gallup weights; worker-clustered standard errors.

▶ The point estimates fall by roughly 90%, although their confidence intervals still permit modest effects.

Attenuation Is Not An Attrition Artifact



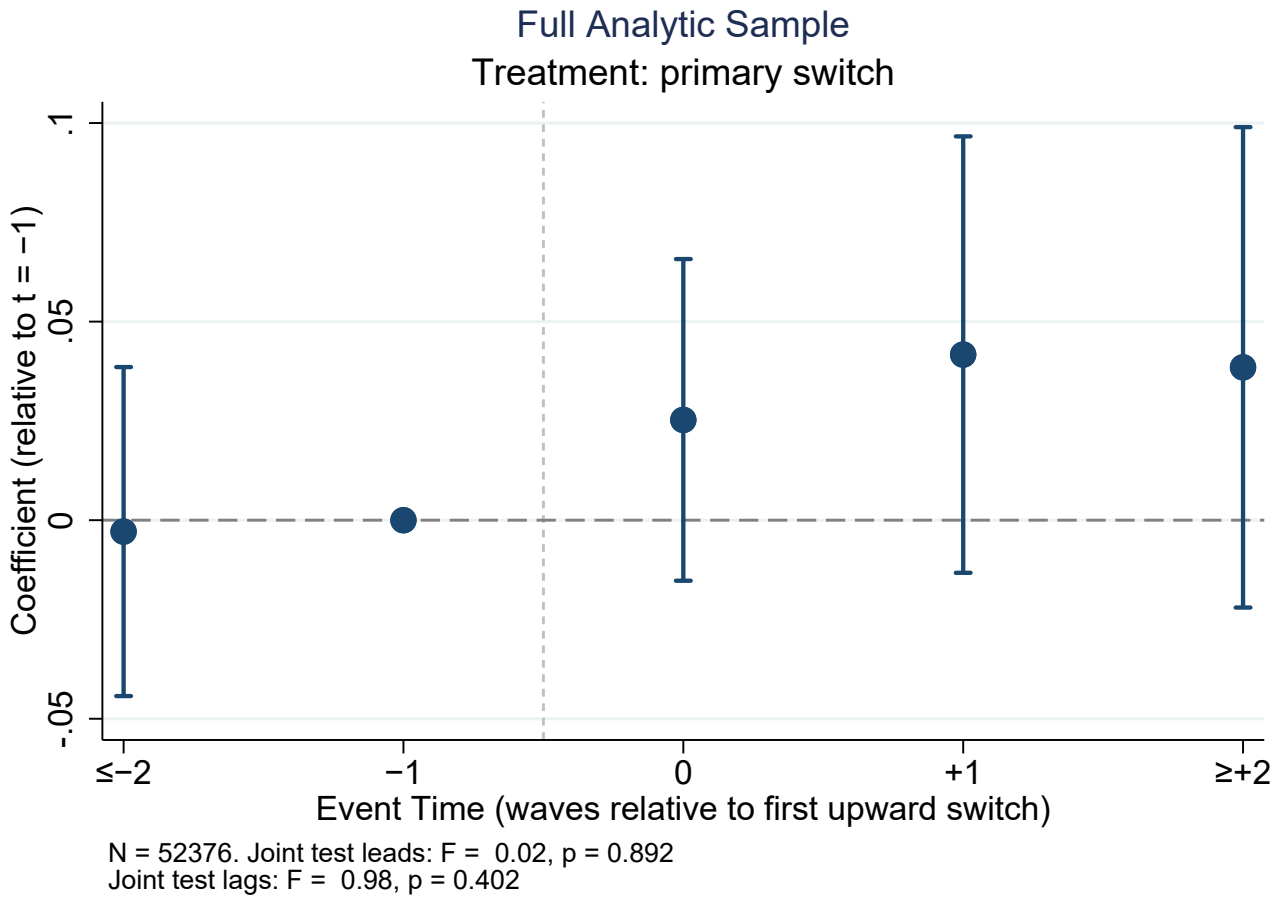
Notes: Pooled associations remain positive among workers who supply within-person variation. The sharp decline occurs when the comparison changes from different workers to the same worker.

Remote-Capable Jobs Show the Same Pattern

	Raw	+ Demographics	+ Occupation	+ Industry	Worker FE
Fully remote	.115***	.112***	.080***	.056***	.006
	(.014)	(.013)	(.013)	(.014)	(.025)
Hybrid	.088***	.070***	.052***	.043***	.010
	(.012)	(.011)	(.012)	(.012)	(.016)
Person-wave observations	32,124	32,044	32,042	32,042	26,477

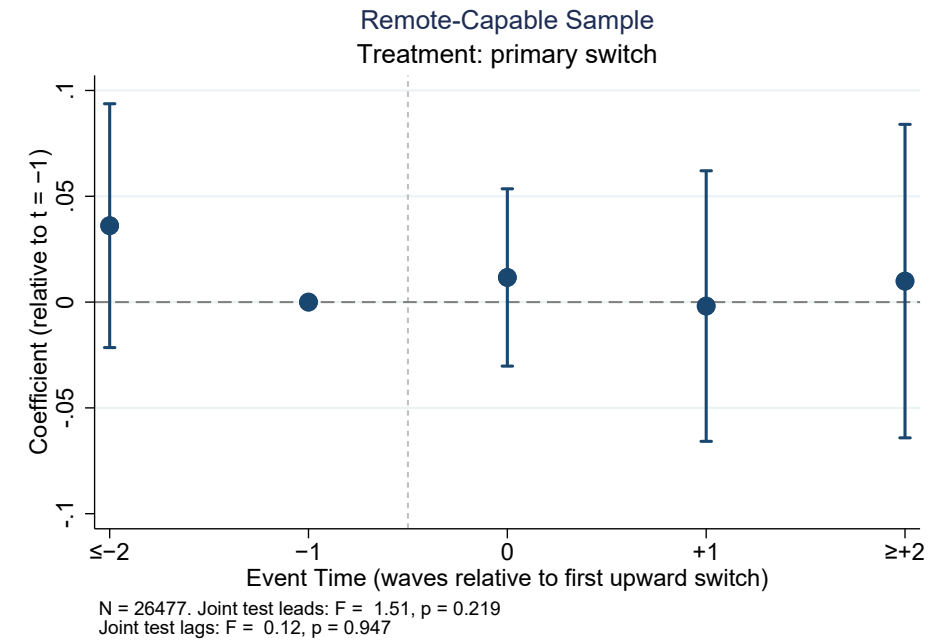
Notes: Sample is restricted to jobs respondents report could be performed remotely. Time effects enter with occupation and industry specifications.

No Statistically Detectable Jump at the Switch



Notes: Outcome: frequent AI use (daily or a few times a week). Event-time indicators are relative to the first observed onsite-to-hybrid or onsite-to-fully-remote transition; wave −1 is omitted. Worker, SOC-3 occupation, NAICS-2 industry, and survey-wave fixed effects; Gallup weights; worker-clustered 95% confidence intervals. Survey waves are not equally spaced in calendar time.

The Event-Study Estimates Remain Imprecise



- Post-event coefficients are not jointly distinguishable from zero: full sample $p = 0.402$; remote-capable sample $p = 0.947$.
- Pre-event tests also do not reject: $p = 0.892$ and 0.219.
- Confidence intervals still permit moderate changes in either direction.
- Transitions are nonrandom and may coincide with job or manager changes.

Occupational AI Exposure Predicts Use, but Explains Little of the Remote Gap

Exercise: In the exposure-matched sample, add an occupation-level AI-exposure measure, then move from comparisons across occupations to comparisons of the same worker over time.

	Demographics	+ Remote feasibility	+ AI exposure	+ Job-context FE	Worker FE
Fully remote	20.3***	11.7***	10.6***	6.2***	0.2
	(1.2)	(1.4)	(1.4)	(1.4)	(2.7)
Hybrid	15.8***	8.8***	8.2***	6.2***	0.5
	(1.0)	(1.1)	(1.1)	(1.1)	(1.8)
AI exposure, 1 SD			3.3***	*absorbed*	*absorbed*
			(0.4)		

Notes: Outcome: frequent AI use; coefficients and standard errors are in percentage points. Onsite workers are the omitted group. Columns 1–4 include demographic controls. Job-context fixed effects are SOC-3, NAICS-2, and survey-wave effects. Column 5 includes worker fixed effects, remote feasibility, and the same job-context fixed effects. The exposure score is measured at SOC-3 and is therefore absorbed once SOC-3 fixed effects enter.

▶ A one-standard-deviation increase in occupational exposure predicts 3.3 percentage points more frequent AI use, but adding exposure reduces the fully remote and hybrid gaps by only 1.1 and 0.6 points. The gap becomes small only in the within-worker comparison.

Recap: The Major Empirical Result

Between workers

- Remote and hybrid arrangements identify workers and jobs with much more AI use.
- Remote feasibility and occupational context explain a large share of the raw gap.

Within workers

- Changing location is not accompanied by an increase large enough to explain the cross-worker concentration.
- Stable tasks, experience, access, teams, and organizational systems remain bundled together.

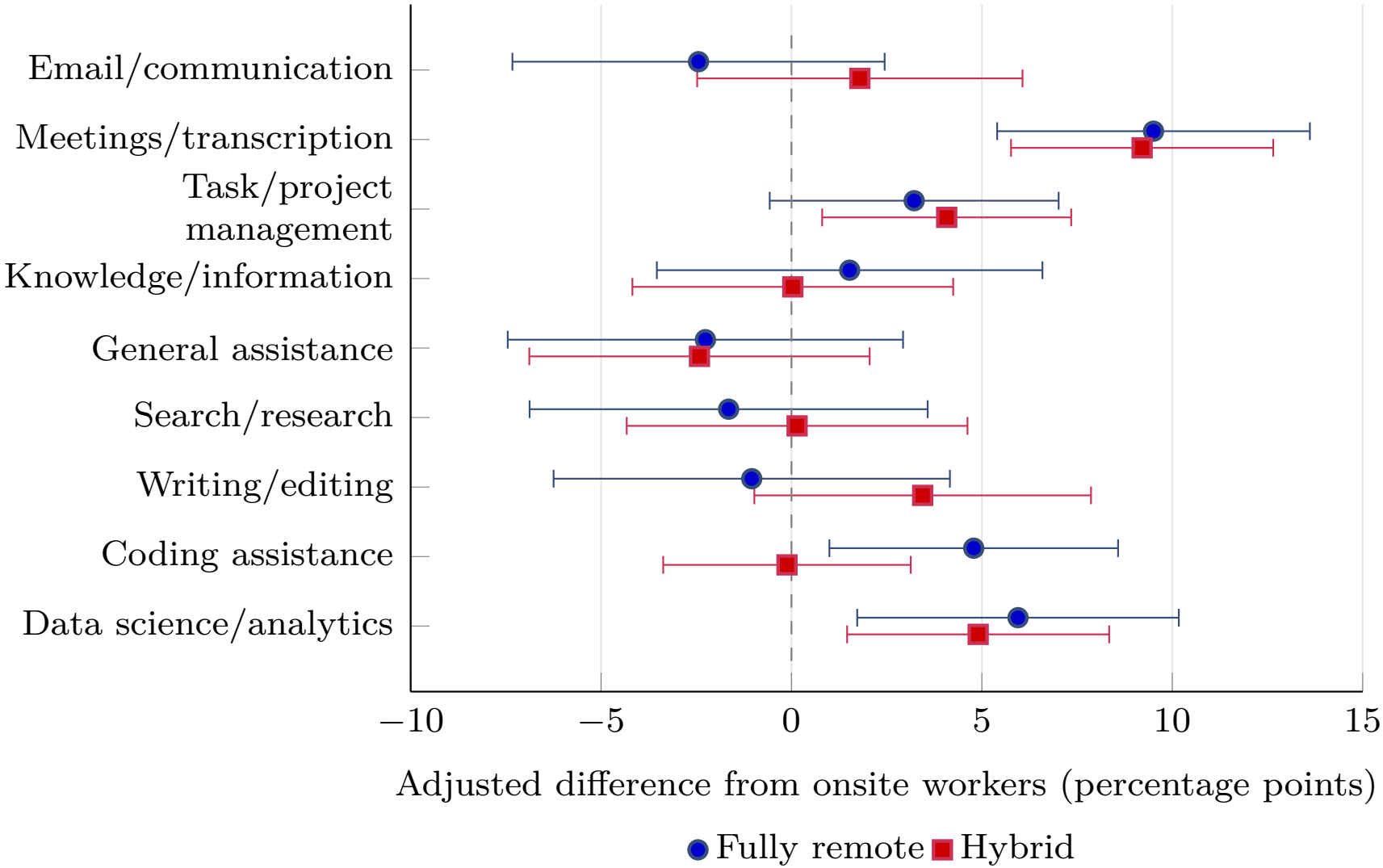
▶ The evidence favors selection-generated bundling over a large contemporaneous activation effect of location.

What Do Remote Workers Use AI to Do?

- The main frequency outcome cannot reveal whether AI substitutes for coordination, expands access to information, or supports individual production.
- Q2:2026 asks eligible workers about nine current applications, including meetings, communication, project management, writing, coding, and analytics.
- Estimates compare fully remote and hybrid workers with onsite workers in remote-capable jobs, controlling for demographics, SOC-3 occupation, and NAICS-2 industry.

▶ The application analysis describes the composition of use among module respondents; it is not an all-worker adoption rate.

Meeting Assistance Is the Clearest Remote-Specific Application



Notes: Q2:2026. Horizontal bars are 95% confidence intervals. Remote-capable workers answering the AI-purpose module; $N = 5{,}018$.

Takeaways on Composition

Clear positive differences

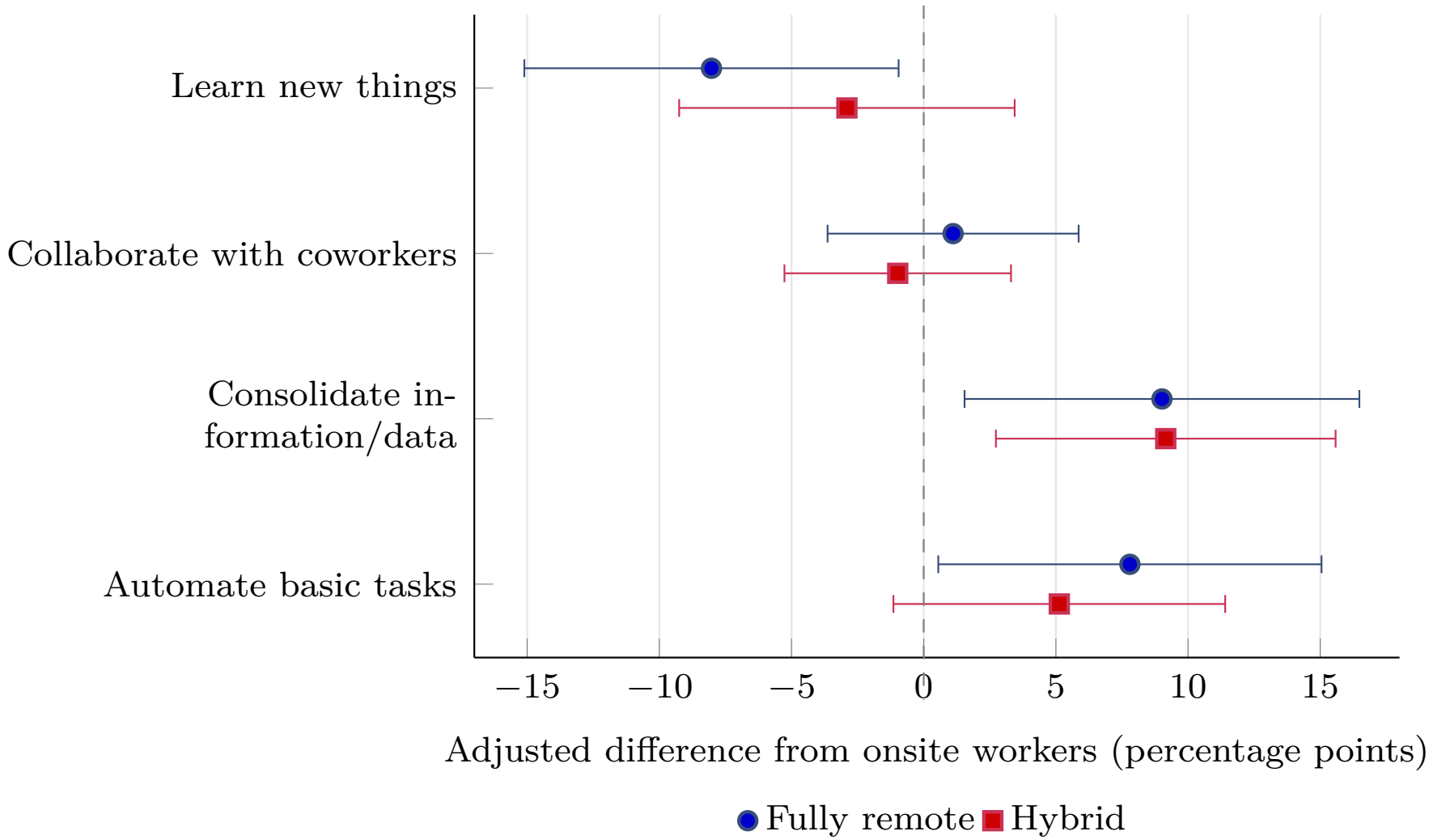
- Meetings/transcription: +9.5 pp fully remote; +9.2 pp hybrid.
- Analytics: +5.9 and +4.9 pp.
- Coding: +4.8 pp for fully remote, but no hybrid difference.

No broad communication advantage

- Email versus writing: no differential remote gradient.
- Knowledge management versus writing: no differential remote gradient.
- General assistance and research are close to zero.

▶ Remote work is linked to particular uses—especially meetings—rather than uniformly higher use across every application.

Earlier Task Data Point to Information Consolidation and Automation



Notes: Q2:2024 and Q2:2025 task battery; remote-capable module respondents; $N = 3{,}232$ person-waves. The Q658 and Q928 taxonomies are not treated as a time series.

What the Task Evidence Adds

- It identifies a concrete channel for distributed work: meeting assistance and transcription.
- It also shows that remote users are not simply substituting AI for every interpersonal or informational activity.
- The earlier battery points to information consolidation and automation, but not greater collaboration or learning.
- These are conditional application differences; they do not establish productivity effects or replacement of coworkers.

Remote Workers Report Different Organizational Environments

	Manager support (1–5)	Clear AI strategy	Organization integrated AI
Fully remote	.253***	.226***	.132***
	(.061)	(.021)	(.019)
Hybrid	.175***	.131***	.080***
	(.052)	(.019)	(.018)
Person-wave observations	8,707	8,707	8,707

Notes: Remote-capable sample from Q2:2025, Q1:2026, and Q2:2026. Demographic, SOC-3, NAICS-2, wave, and questionnaire-form controls.

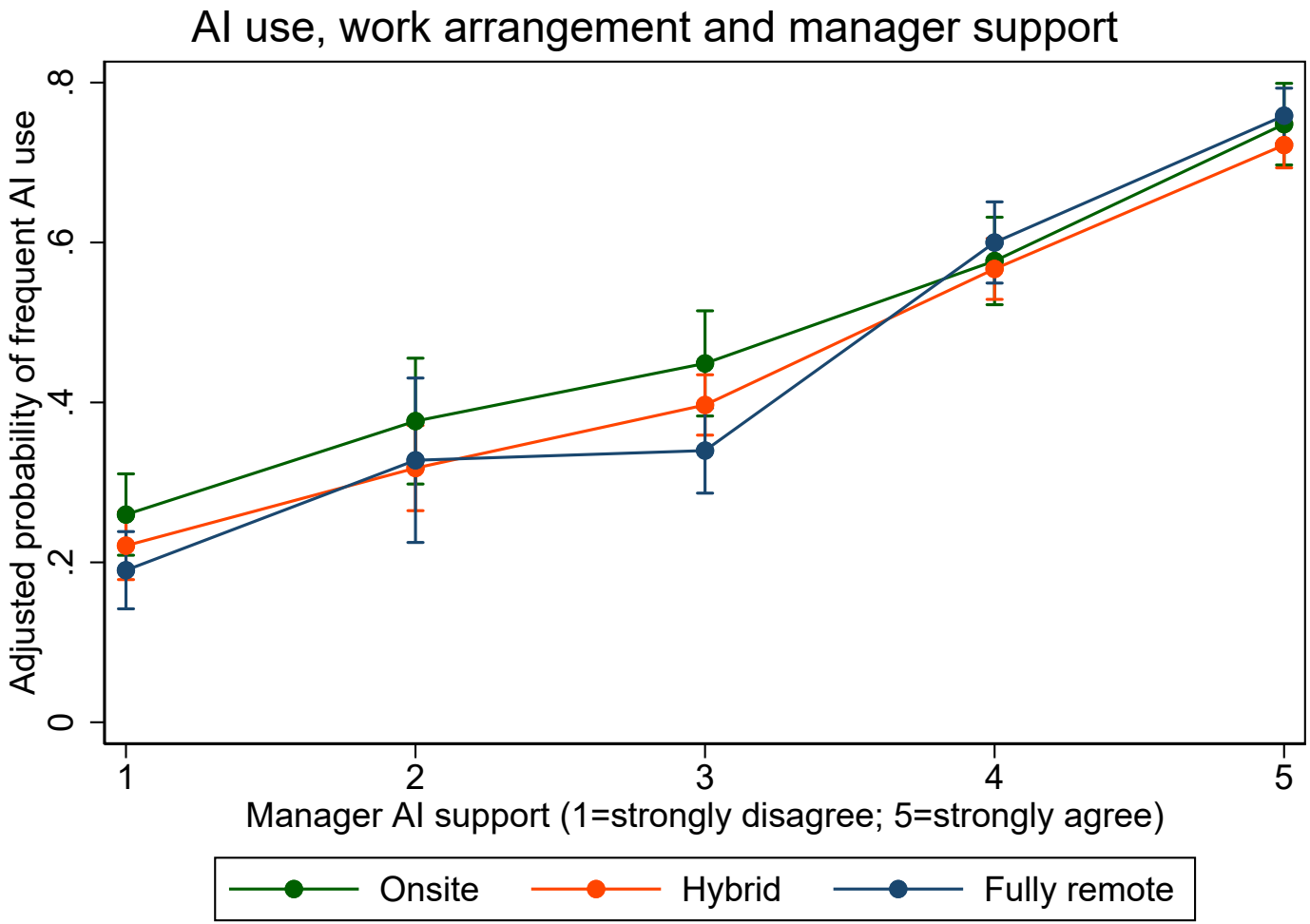
▶ The remote gradient is bundled with stronger reported integration, clearer strategy, and more supportive managers.

Integration and Strategy Account for the Remaining Remote Gradient

	Baseline	+ Integration	+ Strategy	+ Manager support
Fully remote	.039*	-.003	-.027	-.026
	(.022)	(.021)	(.021)	(.019)
Hybrid	.005	-.021	-.035**	-.035**
	(.019)	(.018)	(.018)	(.017)
Organization integrated AI		.316***	.261***	.119***
Clear AI strategy			.141***	.071***
Person-wave observations	8,707	8,707	8,707	8,707

Notes: Identical observations and controls across columns. Coefficient changes are descriptive accounting, not a causal mediation decomposition.

Manager Support for AI Strongly Predicts Use in Every Arrangement (OK, No Surprise!)



Notes: Adjusted linear predictions from the common organizational sample. The five-point support item ranges from strongly disagree to strongly agree.

Support Is Not Uniquely Complementary with Remote Work

Strong level relationship

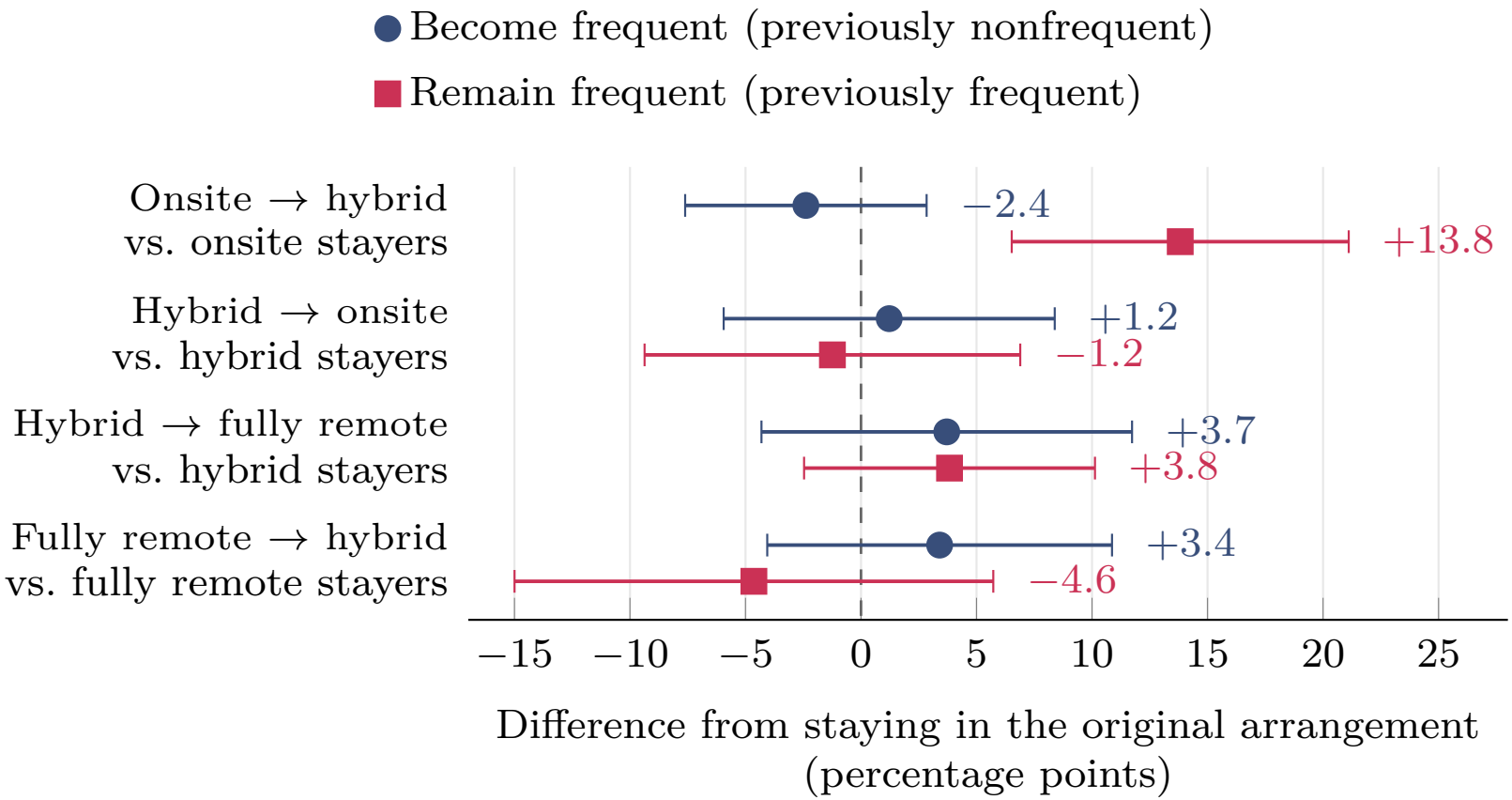
- Predicted frequent use rises from roughly 19–26% at support level 1 to 72–76% at level 5.
- The gradient is present for onsite, hybrid, and fully remote workers.

No differential interaction

- Remote × support joint test: $p = 0.207$.
- Remote × strategy joint test: $p = 0.144$.
- Organizational support matters broadly, not only under remote work.

▶ Remote workers are more likely to report supportive conditions; the return to support itself is not statistically different by arrangement.

Location Changes and Frequent AI Use



Each estimate compares movers with stayers from the same starting arrangement, adjusting for prior AI use and initial worker and job characteristics. Blue circles show entry into frequent use; red squares show continuation. No displayed move has a statistically detectable entry difference. Among previously frequent users, onsite-to-hybrid movers are 13.8 percentage points more likely to remain frequent users than onsite stayers. Other continuation estimates are statistically indistinguishable from zero. These are conditional associations, not causal effects.

Location Changes Do Not Systematically Trigger Entry into Frequent Use

	Origin: onsite	Origin: hybrid	Origin: fully remote
Destination: onsite	—	.012	-.043
		(.037)	(.063)
Destination: hybrid	-.024	—	.034
	(.027)		(.038)
Destination: fully remote	.038	.037	—
	(.101)	(.041)	

Notes: Previously nonfrequent workers. Each destination is compared with staying in the origin arrangement over the same calendar-quarter pair and prior AI-frequency state.

One Continuation Result Stands Out: Onsite to Hybrid

	Origin: onsite	Origin: hybrid	Origin: fully remote
Destination: onsite	—	-.012	-.204
		(.041)	(.175)
Destination: hybrid	.138***	—	-.046
	(.037)		(.053)
Destination: fully remote	-.228	.038	—
	(.179)	(.032)	

Notes: Previously frequent users. Moving from onsite to hybrid is associated with a 13.8-point higher probability of remaining frequent relative to onsite stayers. Rare transition cells remain highly imprecise.

What the Transition Evidence Suggests

- No destination consistently predicts entry into frequent use.
- Existing use can persist across location changes, consistent with established tasks, skills, and routines.
- The onsite-to-hybrid continuation estimate is notable but does not identify an employer-imposed hybrid policy effect.
- Some direct remote-to-onsite and onsite-to-fully-remote cells are small, limiting inference.

Implications for Firms

1. **Do not treat work location as the AI intervention.** The raw remote advantage overstates the increase associated with changing an existing worker's location.
2. **Audit tasks and workflows.** Meeting assistance, information consolidation, analytics, and automation are more directly connected to use than location alone.
3. **Build organizational complements.** Integration, strategy clarity, tool access, guidance, and manager support are strongly associated with frequent use across arrangements.

Implications for Remote-Work Policy

- Return-to-office policy is not, by itself, an AI-adoption policy.
- Remote work can identify digitally organized jobs without causing the underlying task and organizational bundle.
- Firms may recruit, sort, and design jobs differently when they adopt remote work and AI together.
- The critical organizational lever is the work system: tasks, approved tools, training, strategy, validation, and accountability.

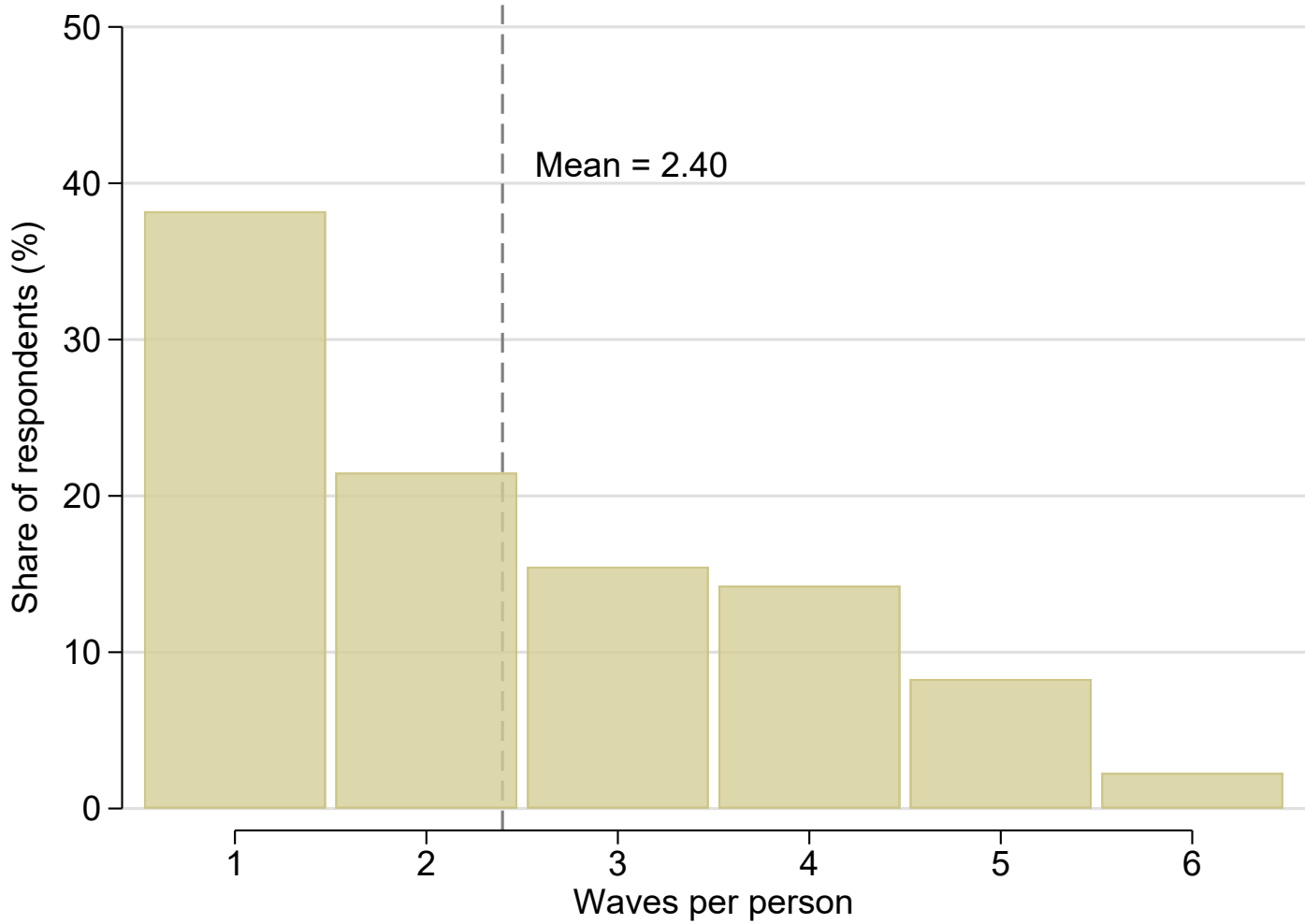
Conclusion

1. Remote and hybrid workers use AI far more often than onsite workers, but most of the raw gap reflects worker and job context (i.e., more of a sorting hypothesis).
2. Same-worker estimates are small relative to the between-worker gradient: changing location does not activate use at the scale implied by the raw data.
3. New evidence points to meeting assistance and to organizational integration, strategy, and support as more informative margins.

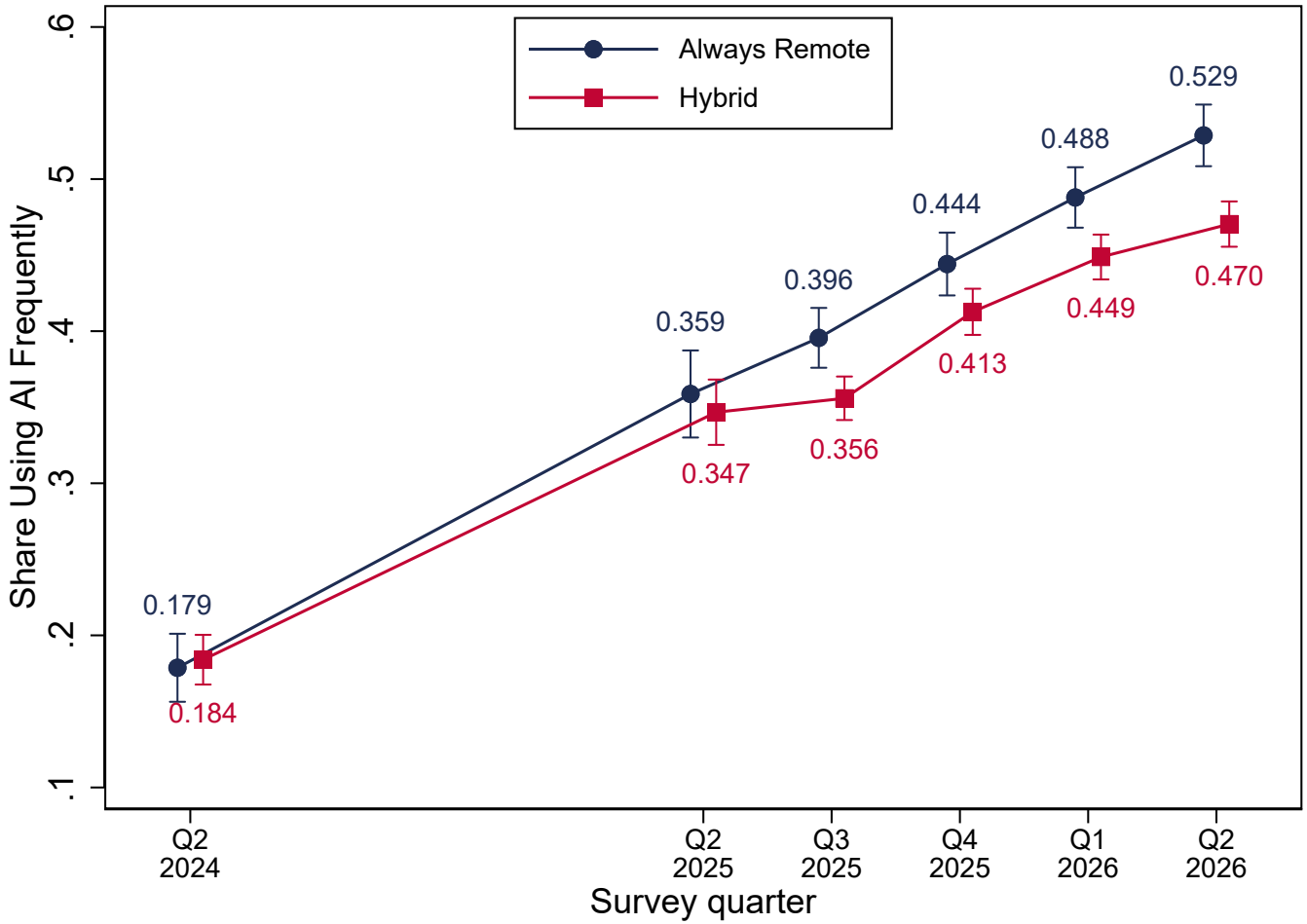
▶ Workplace transformations can travel together because they share antecedents—not because changing one automatically changes the other.

Additional Results and Measurement Details

Panel Coverage Across Waves



Frequent AI Use Rises Through Q2:2026



Notes: Weighted shares among workers in remote-capable jobs. Survey quarters are shown at their actual calendar spacing; AI use was measured annually in Q2 through Q2:2025 and quarterly thereafter.

Panel Structure and Remote-Status Transitions

Panel A: Panel structure			
Unique workers		24,996	
Mean waves per worker		2.40	
Share with 2+ waves		61.8%	
Share switching among repeat respondents		16.2%	
Panel B: adjacent-wave transitions (row %)			
	Onsite	Hybrid	Fully remote
Onsite	93.7	5.5	0.8
Hybrid	10.2	85.5	4.3
Fully remote	3.7	8.4	87.9

Notes: Rows in Panel B sum to approximately 100%.

Full Baseline Table

Dep. var. =	Frequently Use AI (1/0)					
	(1)	(2)	(3)	(4)	(5)	(6)
Fully Remote	.238***	.210***	.116***	.088***	.073***	.011
	[.010]	[.010]	[.012]	[.012]	[.012]	[.021]
Hybrid Remote	.203***	.159***	.083***	.067***	.062***	.021
	[.008]	[.008]	[.009]	[.009]	[.009]	[.013]
Remote-feasible			.127***	.104***	.103***	.028**
			[.008]	[.009]	[.009]	[.013]
Age		-.002***	-.002***	-.002***	-.002***	
		[.000]	[.000]	[.000]	[.000]	
Some College		.030***	.019**	.008	.006	
		[.009]	[.009]	[.009]	[.009]	
College or More		.133***	.111***	.070***	.067***	
		[.009]	[.010]	[.011]	[.011]	
Male		.043***	.046***	.029***	.028***	
		[.006]	[.006]	[.007]	[.007]	
White		-.042***	-.042***	-.038***	-.039***	
		[.008]	[.008]	[.008]	[.008]	
Black		.014	.013	.021*	.023*	
		[.013]	[.013]	[.012]	[.012]	
Has Children		.021***	.022***	.022***	.023***	
		[.007]	[.007]	[.007]	[.007]	
Is Married		.032***	.031***	.024***	.023***	
		[.007]	[.007]	[.007]	[.007]	
R-squared	.06	.08	.09	.14	.15	.72
Sample Size	61540	61377	61377	61377	61377	52376
Demographics	No	Yes	Yes	Yes	Yes	Yes
SOC-3 FE	No	No	No	Yes	Yes	Yes
NAICS-2 FE	No	No	No	No	Yes	Yes
Person FE	No	No	No	No	No	Yes
Time FE	No	No	No	Yes	Yes	Yes

Notes: Onsite is omitted. Gallup weights; worker-clustered standard errors.

Attenuation Across Analytic Samples

Dep. var. = Frequently Use AI (1/0)	Full Sample	FE-Eligible	Switchers Only	FE-Eligible
	(A)	(B)	(C)	(D)
Fully Remote	.073***	.082***	.051**	.011
	[.012]	[.013]	[.022]	[.021]
Hybrid Remote	.062***	.062***	.038**	.021
	[.009]	[.010]	[.016]	[.013]
Remote-feasible	.103***	.096***	.104***	.028**
	[.009]	[.010]	[.019]	[.013]
Person-wave obs.	61377	52263	9200	52376
Unique workers	24996	15832	2615	15832
FE-eligible sample	No	Yes	Yes	Yes
Switchers only	No	No	Yes	No
Person FE	No	No	No	Yes

Notes: Pooled estimates remain positive among repeat respondents and switchers; the sharp decline occurs with worker fixed effects.

Remote-Capable Sample: Full Table

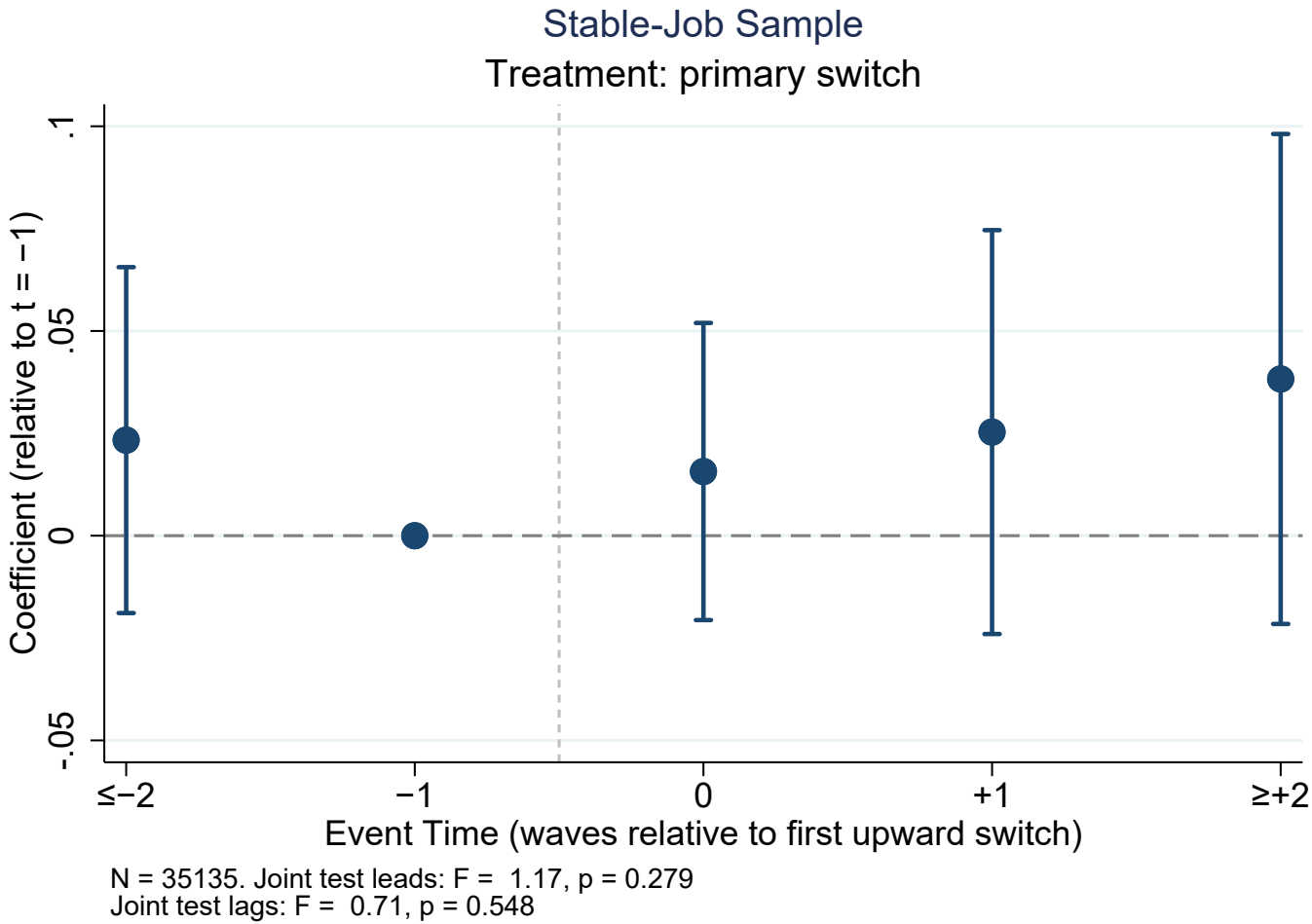
Dep. var. =	Frequently Use AI (1/0)				
	(1)	(2)	(3)	(4)	(5)
Fully Remote	.115***	.112***	.080***	.056***	.006
	[.014]	[.013]	[.013]	[.014]	[.025]
Hybrid Remote	.088***	.070***	.052***	.043***	.010
	[.012]	[.011]	[.012]	[.012]	[.016]
Age		-.003***	-.004***	-.003***	
		[.000]	[.000]	[.000]	
Some College		.008	.002	-.002	
		[.022]	[.022]	[.022]	
College or More		.070***	.054**	.054**	
		[.021]	[.021]	[.021]	
Male		.088***	.035***	.035***	
		[.010]	[.011]	[.011]	
White		-.051***	-.040***	-.042***	
		[.012]	[.012]	[.012]	
Black		.026	.039**	.044**	
		[.019]	[.019]	[.019]	
Has Children		.008	.012	.014	
		[.011]	[.011]	[.011]	
Is Married		.046***	.033***	.035***	
		[.011]	[.011]	[.011]	
R-squared	.01	.03	.10	.11	.73
Sample Size	32124	32044	32042	32042	26477
Demographics	No	Yes	Yes	Yes	Yes
SOC-3 FE	No	No	Yes	Yes	Yes
NAICS-2 FE	No	No	No	Yes	Yes
Person FE	No	No	No	No	Yes
Time FE	No	No	Yes	Yes	Yes

Observed Characteristics of Switchers

Age	45.863	44.384	1.479	0.000
Some College	0.245	0.194	0.050	0.000
College or More	0.688	0.759	-0.072	0.000
Male	0.511	0.533	-0.022	0.041
White	0.708	0.654	0.054	0.000
Black	0.097	0.131	-0.034	0.000
Has Children	0.332	0.357	-0.025	0.015
Married	0.594	0.591	0.002	0.822
Remote-Feasible	0.497	0.644	-0.147	0.000

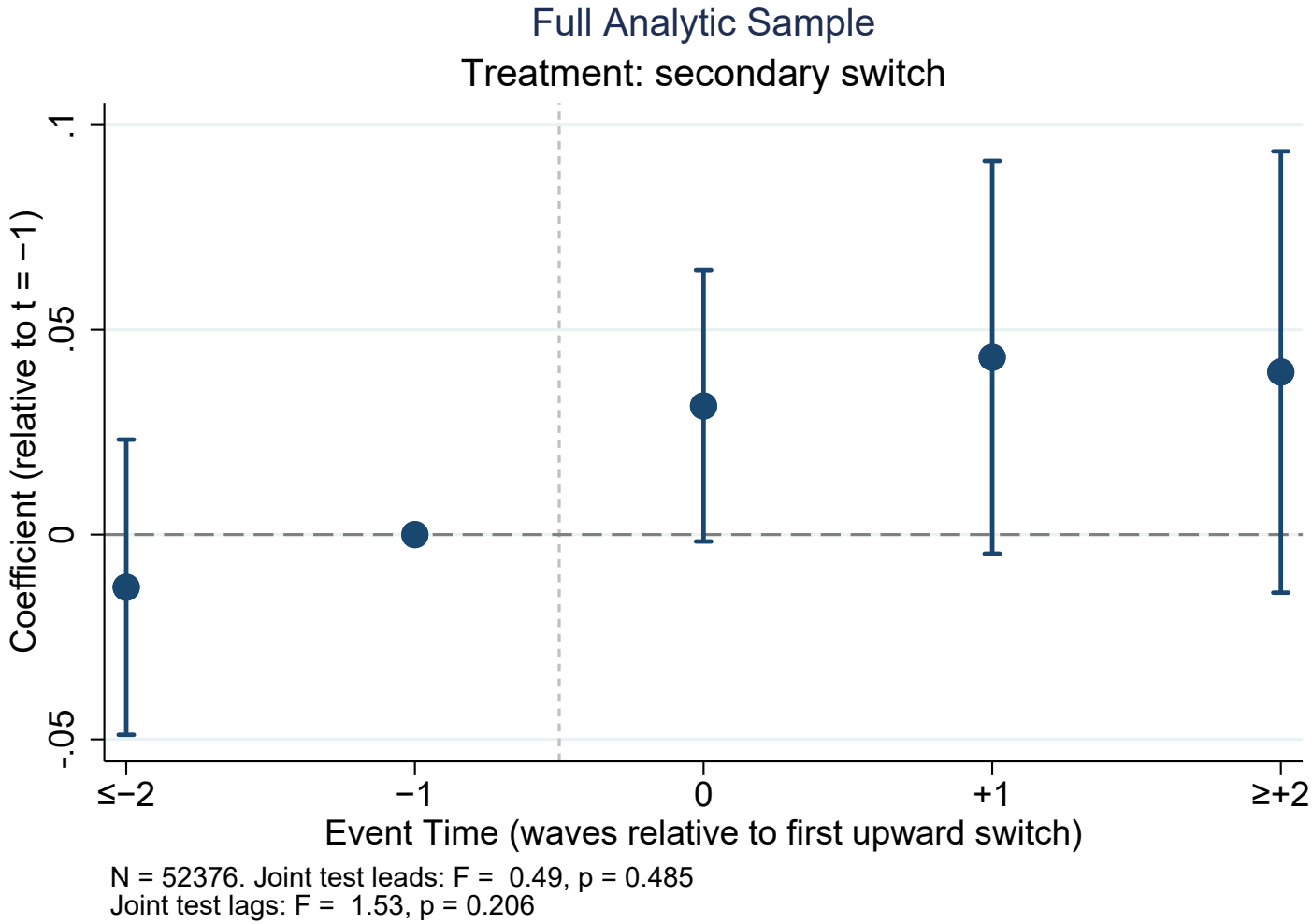
Notes: The table describes selection into the sample supplying within-worker variation; it is not a balance test from random assignment.

Primary Event: Stable-Occupation Sample

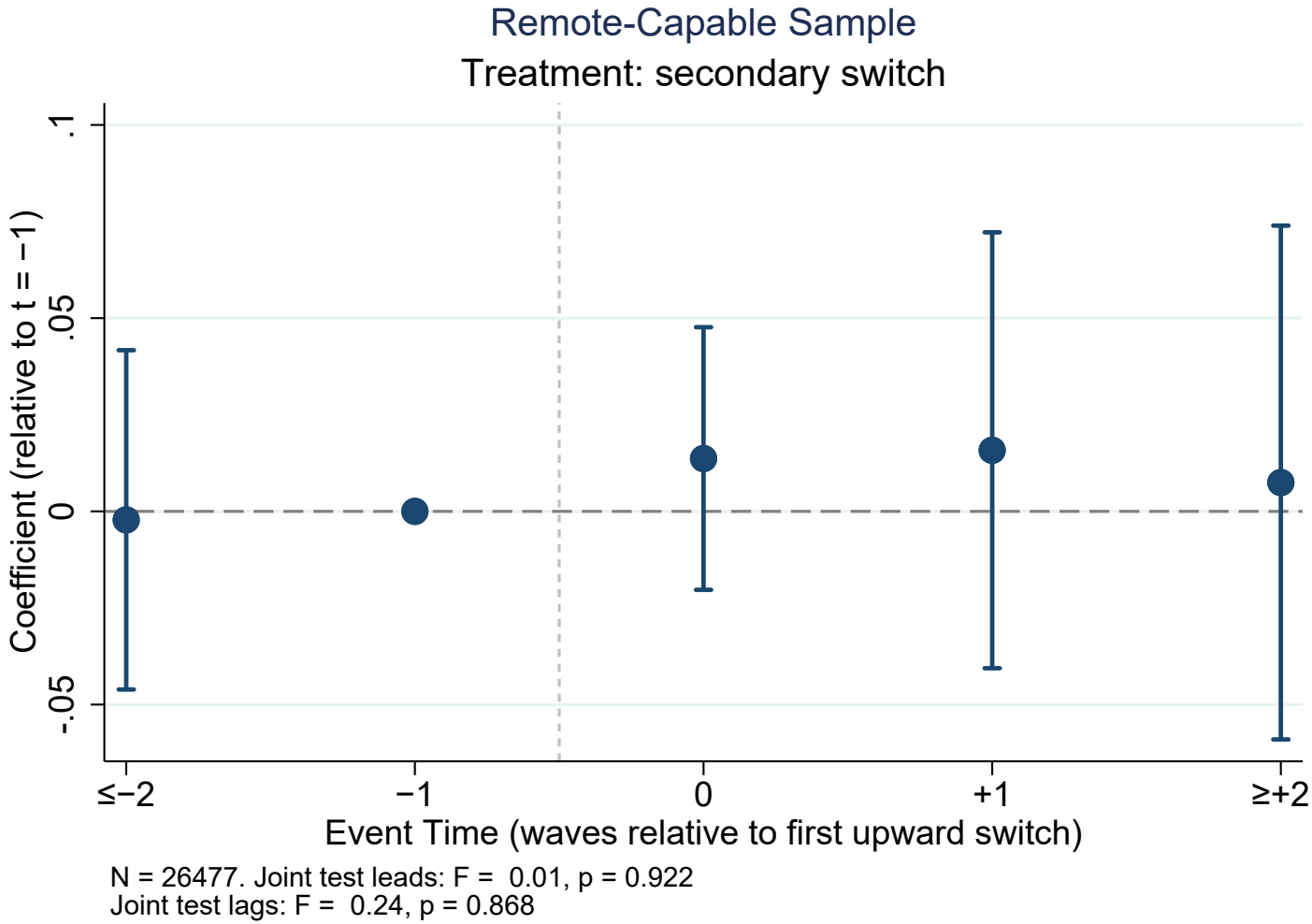


Notes: "Stable occupation" means the worker's three-digit SOC does not change over the observed panel; employer continuity is not observed.

Broader Event: Full Sample



Broader Event: Remote-Capable Sample



N = 26477. Joint test leads: F = 0.01, p = 0.922
Joint test lags: F = 0.24, p = 0.868

Occupational Exposure: Full Table

Dep. var. =	Dep. var. = Frequently Use AI (1/0)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Fully Remote	.203***	.117***	.106***	.062***	.061***	.002	-.005	.008
	[.012]	[.014]	[.014]	[.014]	[.017]	[.027]	[.034]	[.039]
Hybrid Remote	.158***	.088***	.082***	.062***	.048***	.005	.007	.024
	[.010]	[.011]	[.011]	[.011]	[.014]	[.018]	[.023]	[.025]
Remote-feasible		.118***	.091***	.101***	.101***	.006	.005	
		[.010]	[.010]	[.010]	[.013]	[.015]	[.018]	
AI Exposure (std.)			.033***					
			[.004]					
R-squared	.08	.09	.09	.15	.15	.73	.74	.74
Sample Size	40534	40534	40534	40534	23330	33183	18634	13065
Sample	Full	Full	Full	Full	High Exp	Full	High Exp	RC+High
Demographics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Remote-feasible	No	Yes	Yes	Yes	Yes	Yes	Yes	—
AI Exposure	No	No	Yes	Abs.	—	Abs.	—	—
SOC-3 FE	No	No	No	Yes	Yes	Yes	Yes	Yes
NAICS-2 FE	No	No	No	Yes	Yes	Yes	Yes	Yes
Person FE	No	No	No	No	No	Yes	Yes	Yes
Time FE	No	No	No	Yes	Yes	Yes	Yes	Yes

Q2:2026 AI Applications: Full Table

	(1) Email	(2) Meetings	(3) Projects	(4) Knowledge	(5) Assistance	(6) Research	(7) Writing	(8) Coding	(9) Analytics
Fully remote	-0.024	0.095***	0.032*	0.015	-0.023	-0.017	-0.010	0.048**	0.059***
	(0.025)	(0.021)	(0.019)	(0.026)	(0.026)	(0.027)	(0.027)	(0.019)	(0.022)
Hybrid	0.018	0.092***	0.041**	0.000	-0.024	0.001	0.034	-0.001	0.049***
	(0.022)	(0.018)	(0.017)	(0.021)	(0.023)	(0.023)	(0.023)	(0.017)	(0.018)
Workers	5018	5018	5018	5018	5018	5018	5018	5018	5018
R-squared	0.061	0.080	0.064	0.054	0.060	0.071	0.081	0.337	0.064

Notes: Remote-capable workers answering the Q928 task module.

Q2:2024–Q2:2025 AI Applications: Full Table

	(1) Learning	(2) Collaboration	(3) Information	(4) Automation
Fully remote	-0.080**	0.011	0.090**	0.078**
	(0.036)	(0.024)	(0.038)	(0.037)
Hybrid	-0.029	-0.010	0.092***	0.051
	(0.032)	(0.022)	(0.033)	(0.032)
Person-wave observations	3232	3232	3232	3232
R-squared	0.064	0.040	0.056	0.076

Notes: The earlier Q658 taxonomy differs from Q928 and is not treated as a trend.

Direct Task Contrasts

	(1) Email-writing	(2) Plus frequency	(3) Knowledge-writing	(4) Plus frequency
Fully remote	-0.014	-0.010	0.026	0.033
	(0.032)	(0.032)	(0.035)	(0.034)
Hybrid	-0.017	-0.016	-0.034	-0.034
	(0.028)	(0.027)	(0.029)	(0.029)
Workers	5018	5018	5018	5018
R-squared	0.041	0.043	0.074	0.080

Notes: Email-writing and knowledge-writing differences; columns 2 and 4 condition on AI-frequency categories.

Learning by Age and Organization Tenure

	(1) Under 35	(2) Organization tenure under 2 years
Hybrid	-0.018	-0.052
	(0.038)	(0.037)
Fully remote	-0.058	-0.087**
	(0.042)	(0.041)
Age under 35=1	0.089	
	(0.065)	
Hybrid × Age under 35=1	0.006	
	(0.068)	
Fully remote × Age under 35=1	-0.061	
	(0.072)	
Less than 2 years at organization=1		0.041
		(0.069)
Hybrid × Less than 2 years at organization=1		0.143*
		(0.080)
Fully remote × Less than 2 years at organization=1		0.038
		(0.086)
Person-wave observations	2965	2965
Joint interaction p-value	0.474	0.110

Notes: Joint remote-status interaction tests: age $p = 0.474$; short tenure $p = 0.110$.

Knowledge Management by Age and Organization Tenure

	(1) Under 35	(2) Organization tenure under 2 years
Hybrid	-0.005	-0.011
	(0.027)	(0.025)
Fully remote	-0.001	0.013
	(0.032)	(0.030)
Age under 35=1	0.025	
	(0.051)	
Hybrid × Age under 35=1	-0.064	
	(0.051)	
Fully remote × Age under 35=1	-0.017	
	(0.058)	
Less than 2 years at organization=1		0.093*
		(0.053)
Hybrid × Less than 2 years at organization=1		-0.071
		(0.063)
Fully remote × Less than 2 years at organization=1		-0.083
		(0.071)
Workers	4134	4134
Joint interaction p-value	0.368	0.439

Notes: Joint remote-status interaction tests: age $p = 0.368$; short tenure $p = 0.439$.

Organizational Conditions

	(1) Manager support: 1-5	(2) Clear strategy: 0/1	(3) AI integrated: 0/1
Fully remote	0.253***	0.226***	0.132***
	(0.061)	(0.021)	(0.019)
Hybrid	0.175***	0.131***	0.080***
	(0.052)	(0.019)	(0.018)
Person-wave observations	8707	8707	8707
R-squared	0.121	0.092	0.099

Remote Gradient and Organizational Conditions

	(1) Baseline	(2) + Integration	(3) + Strategy	(4) + Support categories
Fully remote	0.039*	-0.003	-0.027	-0.026
	(0.022)	(0.021)	(0.021)	(0.019)
Hybrid	0.005	-0.021	-0.035**	-0.035**
	(0.019)	(0.018)	(0.018)	(0.017)
Organization has integrated AI=1		0.316***	0.261***	0.119***
		(0.017)	(0.018)	(0.019)
Clear organizational AI strategy=1			0.141***	0.071***
			(0.014)	(0.014)
Manager AI support (1-5)=2				0.113***
				(0.025)
Manager AI support (1-5)=3				0.172***
				(0.021)
Manager AI support (1-5)=4				0.357***
				(0.022)
Manager AI support (1-5)=5				0.518***
				(0.022)
Person-wave observations	8707	8707	8707	8707
R-squared	0.098	0.156	0.172	0.268

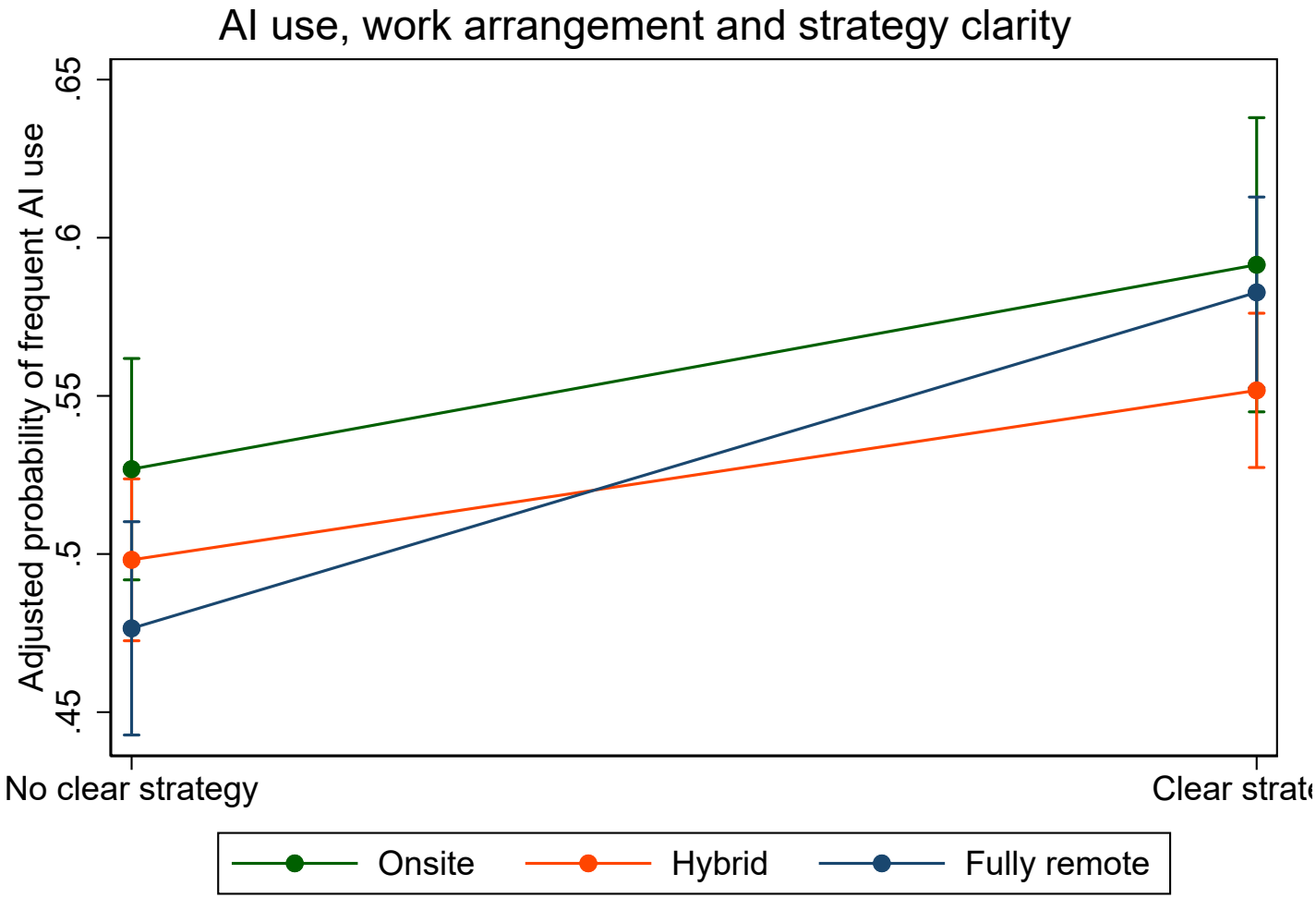
Notes: Identical common sample across columns; descriptive accounting only.

Remote Interactions with Support and Strategy

	(1) Remote x support	(2) Remote x strategy
Hybrid	-0.039	-0.029
	(0.030)	(0.021)
Fully remote	-0.070**	-0.050**
	(0.033)	(0.025)
Manager AI support (1-5)=2	0.117**	0.110***
	(0.046)	(0.025)
Manager AI support (1-5)=3	0.189***	0.171***
	(0.042)	(0.021)
Manager AI support (1-5)=4	0.317***	0.356***
	(0.038)	(0.022)
Manager AI support (1-5)=5	0.488***	0.517***
	(0.037)	(0.022)
Hybrid × Manager AI support (1-5)=2	-0.020	
	(0.056)	
Hybrid × Manager AI support (1-5)=3	-0.013	
	(0.049)	
Hybrid × Manager AI support (1-5)=4	0.029	
	(0.045)	
Hybrid × Manager AI support (1-5)=5	0.013	
	(0.042)	
Fully remote × Manager AI support (1-5)=2	0.021	
	(0.073)	
Fully remote × Manager AI support (1-5)=3	-0.039	
	(0.054)	
Fully remote × Manager AI support (1-5)=4	0.093*	
	(0.050)	
Fully remote × Manager AI support (1-5)=5	0.080*	
	(0.045)	
Clear organizational AI strategy=1	0.069***	0.065**
	(0.014)	(0.029)
Organization has integrated AI=1	0.122***	0.119***
	(0.019)	(0.019)
Hybrid × Clear organizational AI strategy=1		-0.011
		(0.033)
Fully remote × Clear organizational AI strategy=1		0.042
		(0.035)
Person-wave observations	8707	8707
Joint interaction p-value	0.207	0.144

Notes: Joint interaction tests are reported at the bottom of the table.

Strategy Clarity and Frequent AI Use



Entry into Frequent AI Use

	(1) Origin: onsite	(2) Origin: hybrid	(3) Origin: fully remote
Hybrid	-0.024		0.034
	(0.027)		(0.038)
Fully remote	0.038	0.037	
	(0.101)	(0.041)	
Onsite		0.012	-0.043
		(0.037)	(0.063)
Worker-quarter pairs	2334	3852	2095
R-squared	0.172	0.157	0.210

Continuation of Frequent AI Use

	(1) Origin: onsite	(2) Origin: hybrid	(3) Origin: fully remote
Hybrid	0.138***		-0.046
	(0.037)		(0.053)
Fully remote	-0.228	0.038	
	(0.179)	(0.032)	
Onsite		-0.012	-0.204
		(0.041)	(0.175)
Worker-quarter pairs	1137	2683	1737
R-squared	0.189	0.132	0.193

Measurement and Interpretation

- Frequent use is self-reported and does not measure productivity or output quality.
- Remote feasibility is contemporaneous and self-reported; it is not exogenous task content.
- Worker fixed effects absorb stable worker and persistent job-environment differences but do not identify their source.
- AI task modules have different taxonomies and routing across waves.
- The organizational measures are respondent reports and may be jointly determined with AI use.

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