Organizational Transmission of AI: Managerial Influence on Generative AI Adoption

Christos A. Makridis *

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Abstract

Using longitudinal data from the Gallup Panel with roughly 10,000 U.S. respondents, surveyed annually between 2023 and 2025, we document new patterns in the heterogeneous adoption of generative AI and its "organizational transmission" within firms. We show that trust in leadership and clear managerial communication are the strongest predictors of employee uptake, even after accounting for income, occupation, and sector. Exploiting within-person variation and managerial exposure, we demonstrate that the complementarity between AI adoption and workplace culture significantly shapes employee outcomes. Specifically, employees who adopt AI in environments characterized by high managerial trust and clear communication exhibit markedly higher engagement relative to peers adopting AI under weaker managerial conditions. These results highlight the central role of managers in mediating technology diffusion and underscore that the productivity gains from AI hinge not only on the technology itself, but also on the organizational context in which it is deployed.

Keywords: Generative AI; Technology adoption; Managers; Trust; Communication; Organizational diffusion; Panel data.

JEL Codes: O33; M15; M54.

*Christos: Gallup Inc., Arizona State University, University of Nicosia and Stanford University, christos_makridis@gallup.com. I would like to thank Nick Bloom, Jim Harter, and Gallup more broadly for input. These views are our own and do not reflect those of any affiliated institutions.

1 Introduction

Generative artificial intelligence (genAI) has rapidly emerged as a transformative technology in the workplace (Eloundou et al., 2024). Early experimental evidence indicates that integrating genAI tools can raise worker productivity, improving both the speed and quality of output (Noy and Zhang, 2023; Brynjolfsson et al., 2025). While there are suggestive positive signs of its impact on labor markets (e.g., Johnston and Makridis, 2025), its long-term effects will depend crucially on the speed and breadth of adoption (Brynjolfsson et al., 2021), consistent with historical findings that slow diffusion can delay the realization of productivity gains (Comin and Hobijn, 2010).

Recent evidence shows that genAI uptake has been strikingly fast (Bick et al., 2025). As of late 2024, nearly 40% of U.S. adults have used genAI, with about 23% of employed individuals using it for work at least once in the past week (Bick et al., 2025). This diffusion in genAI's first two years has matched or even outpaced that of past major innovations like personal computers and the internet. Despite this rapid overall growth, adoption remains uneven across workplaces and workers. Many employees are still on the sidelines of the "AI revolution," harboring skepticism about AI's impact on their jobs and its efficacy (Ray, 2024). Surveys show that a majority of workers express hesitancy or concern about AI—for instance, over half of U.S. employees worry that workplace AI could negatively affect their career opportunities. Such reservations underscore that swift technological progress does not guarantee universal adoption among the workforce.

A large literature suggests that managerial influence may be a decisive factor in technology uptake within firms.[1] Managers often serve as technology champions or gatekeepers, shaping their

[1]The industrial psychology literature finds that managers account for roughly 70% of the variance in team engagement (Beck and Harter, 2015).

teams' openness to new tools (Howell and Higgins, 1990; Rogers, 2003; Davenport, 2018). In addition, management practices—embodied through individual managers—are integral to unlocking the benefits of technology (Bresnahan et al., 2002; Bloom et al., 2012; Aral et al., 2012). This influence likely extends to shaping employees' willingness to experiment with innovations. Only about one-third of U.S. workers report that their organization has started integrating AI (Den Houter, 2024)—although another study places this as low as 18% (McElheran et al., 2024)—and a mere 15% strongly agree that their employer has communicated a clear AI strategy. When such a plan is in place, employees are nearly five times more likely to feel comfortable using AI. These patterns suggest that clear managerial communication and vision are critical in converting top-down AI investment into broad-based adoption on the ground. Trust in management is another potentially crucial element: employees who lack trust in their leaders may be especially reluctant to embrace new technologies and integrate them into their workflow. In short, leadership may make or break the "last-mile" of technological diffusion within organizations.

The primary contribution of this paper is to study the role that managers play in the transmission of digital technologies, specifically AI, and its effects on employees. Using a longitudinal and nationally representative sample of roughly 10,000 respondents from 2023 to 2025 in the United States, we document three new empirical regularities about the heterogeneous adoption of AI in organizations. First, adoption rates have doubled over the past two years from roughly 10% of workers using AI frequently to 20%. Second, AI adoption in the public sector, particularly intermittent usage of AI throughout the year, grew considerably, although active use remains the highest in the private sector. Third, senior leadership and project managers are the most active users at roughly 60% using throughout the week or at least a few times a year. Fourth, AI adoption is increasing in income with over 65% of those earning over $240,000 using throughout the week or

at least a few times a year, but remains present even among lower income workers at albeit lower 20-30%. Fifth, workplace practices, particularly trust in leadership, remains an economically and statistically significant predictor of active AI use, conditional on other factors.

Motivated by these empirical patterns, we subsequently turn towards investigating the potential for complementarities between workplace practices and AI adoption on employee engagement, burnout, and job satisfaction. Using within-person variation over time, we find that AI adoption on its own tends to have a positive or neutral effect on these outcomes, but the effect becomes economically and statistically significant and positive when AI adoption is paired with trust in leadership. These results are robust to controlling for income $\times$ year fixed effects and leveraging variation among recent job switchers who have been exposed to different management practices.

Our study focuses on the role of managers in driving genAI adoption and what we term "organizational transmission" of genAI—that is, the process by which genAI usage spreads within a firm or team, beyond the initial innovators, through social and hierarchical channels. This concept is akin to internal diffusion or contagion, where managerial early adopters and communicators can influence their subordinates to also adopt the technology. Prior evidence offers hints of such dynamics. Bick et al. (2025) report that managers themselves are among the occupations with unexpectedly high genAI adoption rates, even after accounting for the tasks their jobs involve. This may reflect managers proactively exploring genAI (perhaps to boost team productivity or signal innovativeness), thereby positioning themselves as catalysts for wider adoption. However, Bick et al.'s survey is cross-sectional and primarily descriptive. It documents who is adopting genAI and how fast, but not the causal drivers within organizations. In particular, that study does not directly measure managerial quality, trust, or internal communication practices, nor does it exploit within-firm or within-person variation. By contrast, our study takes an organizational

behavior perspective and uses longitudinal data to isolate managerial effects.

This paper contributes primarily to the empirical management and organizational economics literature. It adds new evidence on how managerial practices and workplace culture influence technology adoption and workforce outcomes. A large body of research has shown that management quality is a key driver of performance – for example, adopting basic modern management practices in a field experiment raised firm productivity by 17% in just one year (Bloom et al., 2013), and differences in management account for roughly 30% of cross-country total factor productivity gaps (Bloom et al., 2017).[2] One reason for these productivity gains also stems from the complementary effects with other organizational investments, as is the case for digital modernization (Bloom et al., 2012). Similarly, Makridis and Schloetzer (2025) show that supportive workplace factors, such as feeling appreciated and having a good boss, are more consequential for job satisfaction and retention than remote-work arrangements themselves. In fact, remote work only improved satisfaction for employees with poor managerial relationships ("a bad boss"), underscoring that effective management and culture can make or break the gains from new work practices.

Our paper also contributes to the technology adoption literature by examining social and managerial determinants of adoption, complementing the typical focus on individual characteristics and technology attributes (Davis, 1989; Venkatesh et al., 2003) and the management literature on leadership and innovation diffusion, which posits that effective leaders foster cultures of experimentation and learning (Edmondson, 2019). Organizational change research has long identified trust in leaders as a facilitator of employee buy-in for new initiatives (Morgan and Zeffane, 2003). In the context of digital transformation, employees who trust their managers may be more willing to follow guidance to try unfamiliar technologies and less fearful of negative consequences (e.g.,

[2]See Bloom and Van Reenen (2010) for a survey of early literature on empirical management practices.

job loss) from automation. For example, Makridis and Han (2021) found that the positive effects of technological change on employee empowerment and satisfaction were strongest in workplaces characterized by high trust in management and more directive (structured) managers. In other words, a trusting and well-led environment can help workers embrace and benefit from new technologies, rather than resist them. Similarly, qualitative research on AI adoption has highlighted that attitudes can shift from skepticism to openness as users gain experience, especially when managers and peers help establish an atmosphere of trust and learning (Daly et al., 2025). Managers not only control resources and incentives but also shape norms and alleviate fears, which can accelerate the internal diffusion of innovations.

2 Data and Measurement

2.1 Gallup Practice Panel

We leverage data from the Gallup Practice Panel, a longitudinal survey of U.S. workers. The panel consists of probability-based samples of adults (18+) who are surveyed annually about their workplace experiences, management, and well-being. Each wave from 2021 onward includes roughly 20,000 respondents, with core questions repeated and new items added on emerging topics, like AI. For instance, the Q2 2024 wave was a web survey of 21,543 working adults drawn from this panel, with sampling weights calibrated to national demographics. Respondents span all major industries, occupations, and regions, enabling us to observe AI adoption across a broad swath of the workforce. Crucially, the panel structure means many respondents participate in multiple waves. We can thus track individuals over time, observing whether those who initially did not

use AI later adopt it, and how changes in their work environment coincide with that. We focus on employed respondents in the 2023 and 2024 waves (when genAI use was measured) and link them to prior responses on managerial quality and other controls from 2021–2022. This yields a longitudinal sample suitable for fixed-effects analysis. Table 1 reports summary statistics by year.

The resulting Gallup Panel sample contains 20,428 unique respondents and 27,467 person–wave observations.[3] Of these, 6,064 respondents are observed in at least two waves. Among the multi-wave sample, 33.8% (2,049/6,064) change their AI-use category (Never / Sometimes / Often) at least once over their observed panel. Considering adjacent-wave transitions (7,039 valid t-1 $\rightarrow$ t comparisons), 19.3% represent adoption (Never $\rightarrow$ Sometimes/Often) while 5.2% represent cessation ((Sometimes/Often) $\rightarrow$ Never); the remaining 75.5% are either stable within category or movements between Sometimes and Often. Net flows favor adoption by +990 transitions (ratio $\approx$ 3.7:1), indicating diffusion outpaces abandonment over the sample window.

2.1.1 AI Measurement

Our primary outcome is an indicator of AI adoption at the individual level. In particular, we use answers to the question "How often do you use artificial intelligence in your role," which include: (a) daily, (b) a few times a week, (c) a few times a month, (d) few times a year, (e) once a year, (f) less often than once a year, and (g) never. We consolidate these answers into three groups: often (daily and a few times a week), sometimes (a few times a month, a few times a year), and never (once a year, less often than once a year, and never). Figure 1 plots these shares. The share using AI at work often grew from 10% to 19% between 2023 and 2025—very similar to the share

[3] Figure A.1 in the Online Appendix provides a summary of the longitudinal variation; roughly 20% of the sample has at least two waves of data. Tables A.1 and A.2 provide further evidence on the share of AI adopters/switchers and the corresponding transition matrices.

reporting using it sometimes. The cumulative shares of often and sometimes totals roughly 40%, consistent with the numbers from Bick et al. (2025).

We also make use of another question on AI concern and expectations, namely: "How likely is it that the job you have now will be eliminated within the next five years as a result of new technology, automation, robots or artificial intelligence?" Respondents can choose among "very likely," "somewhat likely," "not too likely," "not at all likely," and "don't know or doesn't apply." We classify the last group as missing and focus on the other four, defining an indicator for fear that AI will replace the respondent's job based on reporting "very likely."

2.1.2 Workplace Practices

In addition, we measure workplace (management) practices based on responses to the degree of agreement with the following statements on a 1-5 scale: (a) I feel connected to my organization's culture, (b) My organization consistently delivers on the promises it makes to customers, (c) I trust the leadership of this organization, (d) My organization cares about my overall wellbeing, (e) I have received meaningful feedback in the past week, and (f) I am treated with respect at work. We take the z-score of the average of these scores, but produce robustness results using them independently interacted with AI utilization.

2.1.3 Employee Engagement

We now turn to our outcome variables. Our primary focus is on employee engagement, which is constructed as a z-score of the average across the "Q12" indicators—a set of 12 questions that have been validated by Gallup as defining employee engagement, including: (1) I know what is

expected of me at work, (2) I have the materials and equipment I need to do my work right, (3) At work, I have the opportunity to do what I do best every day, (4) In the last seven days, I have received recognition or praise for doing good work, (5) My supervisor, or someone at work, seems to care about me as a person, (6) There is someone at work who encourages my development, (7) At work, my opinions seem to count, (8) The mission or purpose of my organization makes me feel my job is important, (9) My associates or fellow employees are committed to doing quality work, (10) I have a best friend at work, (11) In the last six months, someone at work has talked to me about my progress, (12) This last year, I have had opportunities at work to learn and grow. We also focus on two other metrics: burnout and job satisfaction. The former is measured as follows: "Please indicate how often each of the following statements is true of your primary job (i.e., the job where you spend the most time working). I feel burned out at work: (a) Always, (b) Very often, (c) Sometimes, (d) Rarely, (e) Never." The latter is measured (ranked on a 1 to 5 scale) as follows: "How satisfied are you with your place of employment as a place to work?"

2.1.4 Individual Controls

Our primary controls include: age, male, race (White, Black), full time and part time status, having children, and married. We also observe the employee's annual income bin, education, industry classification (approximately a two-digit North American Industry Classification Standard), and tenure, although these latter variables are used only in robustness checks.

2.2 Descriptive Evidence

Figure 2 distinguishes among federal, state, and private sector employees. In 2023, private sector employees reported the highest levels of AI use, with approximately 10% using AI often and 11% sometimes. Federal and state employees lagged slightly behind, with "often" use ranging from 7–8% and "sometimes" use around 8–9%. By 2024, adoption increased across all sectors. "Often" use rose to 12% in the federal sector, 10% in the state sector, and 14% in the private sector. "Sometimes" use also climbed, reaching 15% (federal), 12% (state), and 16% (private). In 2025, the growth trend continued. The private sector led with 18% reporting "often" use and 25% "sometimes" use. Federal employees reached 15% and 20%, respectively, while state employees showed 13% "often" and a notable 22% "sometimes" use.

Figure 3 similarly decouples AI use across different levels of organizational hierarchy: senior leaders, supervisors, project managers, and individual contributors. In 2023, AI use was relatively modest across all roles, with individual contributors reporting the lowest levels of frequent use (6%) and senior leaders the highest (11%). Occasional use ("sometimes") ranged from 9% among individual contributors to 13% among project managers. By 2024, adoption increased across all roles. Frequent use rose to 14% among senior leaders and 10% among supervisors, while occasional use reached 16% among project managers and 13% among individual contributors. In 2025, the upward trend continued. Senior leaders reported 18% frequent use and 20% occasional use, while project managers showed 15% and 22%, respectively. Individual contributors, though still the lowest in frequent use (10%), reached 18% in occasional use. These patterns suggest that leadership and project-oriented roles are integrating AI more rapidly than individual contributors, consistent with theoretical models of coordination and teamwork (Lee and Makridis, 2023).

Figure 4 presents AI use across income brackets, characterizing disparities in adoption patterns. In 2024, frequent use ("often") was highest among earners above $240,000 (12%) and lowest among those earning less than $12,000 (3%). Occasional use ("sometimes") followed a similar gradient, ranging from 5% in the lowest income group to 14% among those earning $180,000–239,999. By 2025, AI adoption increased across nearly all income levels. Frequent use rose to 16% among the highest earners and 10% among those in the $120,000–179,999 bracket, while occasional use reached 18% and 15%, respectively. Lower-income groups saw more modest gains, with frequent use among those earning less than $12K rising to 5% and occasional use to 8%. These trends suggest that higher-income individuals are adopting AI tools more rapidly, potentially reflecting greater access to resources, training, and AI-integrated roles.

3 Identification Strategy

To understand the determinants of AI adoption, we estimate regressions of the form:

$$AI_{it} = \zeta M_{it} + \psi FEAR_{it} + \beta X_{it} + \lambda_t + \varepsilon_{it} \tag{1}$$

where AI_{it} denotes whether an individual uses AI frequently for work within a week (normalized to the sometimes or never utilization rates), M denotes a vector of workplace (managerial) characteristics that are represented as z-scores on 1-5 variables with higher levels denoting better ratings, $FEAR$ denotes an indicator for whether the respondent thinks that AI will replace their job in the next five years, X denotes a vector of individual characteristics, and λ denotes fixed effects on year. Standard errors are clustered at the individual-level and observations are weighted.

Equation 1 explores the cross-sectional determinants of AI adoption, specifically the role that

workplace practices play above and beyond demographics and job characteristics. Prior literature suggests that meaningful modernization efforts only take place when management creates a healthy culture of innovation and trust. Moreover, there could be concern associated about experimenting with AI in organizations in unhealthy cultures, particularly if there are not guard rails. For example, several Gallup surveys have found that establishing guidance and processes around the proper use of AI is important for building confidence among employees.

Next, we ask how these workplace practices interact with AI adoption in affecting employee engagement. Although there are some concerns that AI is substituting for human effort, and thereby reducing employee engagement and a sense of purpose, there is also the possibility that AI can function as a complement if managed properly. To that end, we now exploit the panel structure of the data to run regressions of the form:

$$y_{it} = \gamma AI_{it} + \phi M_{it} + \xi(AI_{it} \times M_{it}) + \beta X_{it} + \alpha_i + \lambda_t + \varepsilon_{it} \tag{2}$$

where y denotes our employee-level outcome of interest (e.g., engagement, burnout, job satisfaction), AI denotes a vector of indicators on AI utilization, M and X are vectors for workplace and individual covariates as before, and α_i are individual and λ_t are year fixed effects. Standard errors are clustered at the individual-level and observations are weighted.

Our primary concern in Equation 2 is that unobserved heterogeneity at the individual-level is correlated with AI adoption and/or perceptions of the workplace. For example, workers who are more likely to adopt AI might also be more optimistic and, therefore, also rate their workplace higher. In addition, we are also concerned about reverse causality. That is, more engaged employees might be more likely to adopt new technologies, like AI, because they have greater motivation

to contribute to their organization and team. To address these concerns, we not only include a wide array of demographic factors—and conduct robustness using both income and industry fixed effects—but also introduce person fixed effects, exploiting within-person variation across different employers. Although we only have a two or three observations per respondent (see Figure A.1 in the Online Appendix), a thin sample will only serve to attenuate, rather than bias, our results.

4 Determinants of AI Adoption

Table 2 begins by estimating the determinants of AI adoption. Columns 1-6 use different dimensions of workplace perceptions, and some of the dimensions are unavailable in some years, e.g. "I have received meaningful feedback in the past week" is not available in 2025 and "I am treated with respect at work" is not available in 2024. Nevertheless, each factor—except for "My organization consistently delivers on the promises it makes to customers"—is statistically and economically significantly related with using AI often at work. In the fully saturated specification in column 7, only two, however, remain statistically and economically significant: "I have received meaningful feedback in the past week" and "I trust the leadership of this organization." In particular, a one standard deviation increase in feedback and trust is associated with a 2.2-3.1 percentage point (pp) increase in the probability that an individual uses AI frequently during the week. That is economically significant since the average share of respondents who do so is 14%, making the marginal effect of trust roughly 21% when evaluated at the mean.

Before continuing, it is interesting to pause on the observation that individuals who believe that AI is "very likely" to displace their job in the next five years are more likely—roughly 10 to 20 percentage points more likely—to use AI often. On one hand, that may appear as a puzzle: why

would frequent AI users hold such concerns about their job? On the other hand, it could indicate that frequent AI users understand that their jobs—and jobs in the economy more broadly—are subject to evolution and that the nature of their work will simply change, but not go away.

Are these coefficients biased due to having too precise of a cutoff on AI utilization? Table A.3 in the Online Appendix replicates these results using an indicator for whether the respondent uses AI frequently during the week or sometimes during the year, which captures over a third of respondents. While the workplace practices are all positive and statistically significant on their own, when combined in the final column, only trust remains positive and statistically significant.

5 Complementarities in Workplace Practices and AI

Table 3 reports estimates of employee outcomes on indicators for AI use ("often," "sometimes"), a standardized index of workplace trust, and their interactions. All specifications include demographics; columns 2/5/8 add person fixed effects and year fixed effects, and columns 3/6/9 further include income × year fixed effects (standard errors clustered by person).

Starting with the Q12 questions (col. 1-3), workplace trust is a first-order predictor of employee engagement. A one–standard-deviation (s.d.) increase in trust raises the probability of being "high Q12" by 0.180 (s.e.=0.005) in the pooled cross-section, by 0.106 (0.015) with person fixed effects, and remains positive though imprecisely estimated with income×year fixed effects (0.056; 0.035). The main effect of "often" AI use is modest—4.7 p.p. in the pooled model (0.015), and is not distinguishable from zero once person fixed effects are introduced. By contrast, the interaction terms indicate complementarity: "often" AI use × trust is positive and significant in columns 1–2 (0.027, 0.068), and "sometimes" × trust is also positive in column 2 (0.047). With the most

saturated controls (col. 3), the interactions lose precision but retain positive signs.

Turning to burnout (cols. 4-6), trust is strongly associated with lower degrees of burnout: -0.393, -0.333, and -0.263 s.d. across the three specifications (s.e.=0.018, 0.047, 0.064). The main effects of AI use are small and statistically indistinguishable from zero once fixed effects are included. The interaction of "often" AI use with trust is negative and marginally significant in the richest specification (-0.181; 0.101), implying larger burnout reductions for frequent users in high-trust settings. Other interaction terms are small and imprecise.

Finally, turning to job satisfaction (cols. 7-9), trust is again large and precise—0.653, 0.492, and 0.243 s.d. (0.013, 0.046, 0.084). While the main effects of AI use are near zero with fixed effects in column 8, complementarity is most pronounced in the saturated model: trust × "often" equals 0.280 (0.113) and trust × "sometimes" equals 0.233 (0.087), indicating that the slope of trust is steeper among adopters. Taken together, trust is a robust correlate of higher engagement and satisfaction and lower burnout, while AI use on its own has limited association once we compare workers to themselves over time. The interaction terms show that trust and AI use are complements: adopters in high-trust workplaces experience disproportionately better outcomes.

Table A.5 in the Online Appendix presents comparable results using variation in job-to-job transitions, i.e. restricting the sample to those with job tenure under 4 years over the three year span of the sample. Although the sample size declines markedly, the results are qualitatively robust, and thus lack statistical significance at conventional levels. In fact, the interaction effects are much stronger when the outcome variable is burnout, although they are weaker for job satisfaction.

Table 4 tests for heterogeneous treatment effects. The complementarities are strongest for Females, higher tenure employees, and younger employees. To make reconcile how the two latter patterns can co-exist, consider that longer tenured employees tend to hold more senior roles, and

thus play a bigger part of digital transformation. Moreover, if a more senior employee adopts AI, they are more likely to send a signal to others. Similarly, consider that younger employees may also be more impressionable (and age is only imperfectly correlated with tenure). Nonetheless, the sample sizes are small, so we caution against reading too heavily into these coefficient estimates.

To understand a potential candidate mechanism behind these results, we investigate the way management affects perceptions about the impact of AI on an employee's own productivity in Table 5. In pooled cross-sections, frequent users report substantially higher perceived AI productivity: 0.966 s.d. (s.e.=0.188) and +23.6 p.p. (s.e.=2.7 p.p.) in cols. 1 and 4. Introducing person fixed effects (cols. 2–3 and 5–6) attenuates these main effects toward zero, consistent with selection into frequent use. By contrast, the interactions with workplace trust are large and stable for frequent users: the "often" × trust coefficient equals 0.330 (0.176), 0.597 (0.263), and 0.476 (0.235) for the z-score outcome, and 0.097 (0.022), 0.386 (0.125), and 0.313 (0.133) for the "5/5" indicator (cols. 4–6). Interactions for "sometimes" users are smaller and not robust—significant only in the lighter control binary models (0.034 and 0.290 in cols. 4-5).

The main trust coefficient is near zero in the pooled z-score model and turns negative with fixed effects (e.g., -0.333 and -0.281 in cols. 5-6). The results imply that trust operates primarily by amplifying the perceived gains among adopters: in the FE binary models, a one-s.d. increase in trust raises the probability that frequent users report a "5/5" impact by roughly 3-5 p.p. (-0.333+0.386 and -0.281+0.313), with little corresponding effect for non-users.

Figure 5 provides further descriptive evidence, plotting the share of respondents who report different ways that they are utilizing AI in the workplace separately for high versus low trust in leadership scores. Across the board, high trust in leadership is associated with higher levels of AI utilization, but these are concentrated among learning new things, generating ideas, and

consolidating information, with a close runner-up of automating new ideas. This is consistent with the view that when employees trust in their leadership, they are granted the flexibility—and given the internal space—to experiment and apply technology in new ways that drive value.

6 Discussion

Our evidence suggests that genAI pays the largest employee dividends in organizations that pair the technology with high-quality managerial practices, especially trust, clarity, and timely feedback. In this sense, AI is a *complement* to management, not a substitute for it. This interpretation echoes a long tradition in organizational economics showing that information technologies deliver value when bundled with complementary investments in work design, incentives, and capabilities (Bresnahan et al., 2002; Bloom et al., 2012; Brynjolfsson et al., 2021; Aral et al., 2012). Our panel estimates are consistent with such complementarities: AI adoption is positively associated with engagement and satisfaction primarily when employees perceive higher trust in leadership, and managerial communication and feedback are robust correlates of frequent use.

6.1 Psychological safety as the mechanism

The complementarity operates through psychological safety—the shared belief that the team is safe for interpersonal risk-taking (Edmondson, 2019). When leaders articulate a purpose for AI, set simple guardrails, and provide non-punitive feedback on early attempts, employees feel permitted to explore new workflows, share intermediate outputs, and learn from iteration. By contrast, in low-trust environments, uncertainty about consequences raises the perceived cost of experimentation; employees rationally avoid using unfamiliar tools, especially amid concerns about

automation and career risk (Ray, 2024). This dynamic dovetails with evidence that trust facilitates buy-in for organizational change (Morgan and Zeffane, 2003) and with classic diffusion results on the role of credible champions and social learning in adoption (Howell and Higgins, 1990; Rogers, 2003). It also resonates with recent qualitative work showing that initial skepticism toward AI can shift to openness as users gain experience in supportive settings (Daly et al., 2025).

6.2 Managerial Implications

The results imply that the managerial problem is not merely "procure AI," but "co-invest in the organizational complements that unlock AI." We highlight six practical steps.

First, communicate a credible AI strategy and purpose. Spell out *where* AI belongs (specific tasks and use-cases), *why* it is being adopted (augmentation, not substitution), and *how* success will be measured. Clear expectations lower perceived effort and risk, consistent with technology acceptance models (Davis, 1989; Venkatesh et al., 2003) and with survey evidence that communication raises comfort with AI (Den Houter, 2024).

Second, create psychological safety for trial-and-error. Make exploration explicitly permissible: time-box low-stakes pilots, normalize sharing of drafts and prompts, and use blameless postmortems. Senior sponsorship and visible "champions" accelerate diffusion (Howell and Higgins, 1990; Rogers, 2003; Edmondson, 2019).

Third, Institutionalize feedback loops. Short, regular "prompt reviews" and "demo days" provide meaningful, timely feedback that both improves technique and signals that learning is valued. This mirrors complementarities among IT, human-capital development, and incentives documented in prior work (Aral et al., 2012).

Fourth, redesign roles and processes, not just tools. Update standard operating procedures to position genAI at specific steps (e.g., ideation, drafting, synthesis, quality checks), clarify handoffs, and reallocate time savings toward higher-value activities. Performance gains from IT arrive when paired with complementary process redesign (Bresnahan et al., 2002; Bloom et al., 2012).

Fifth, invest where adoption lags. Because adoption often rises with seniority and income, targeted enablement for individual contributors (curated use-cases by job family, office hours, peer mentors) can avoid widening internal skill gaps. Clear guardrails reduce fear of misuse, supporting wider participation (Davenport, 2018).

Sixth, align incentives and measurement with augmentation. Reward improvements in cycle time, quality, and customer outcomes rather than raw usage. Recognize documented process improvements so experimentation is career-safe and visibly valued, mitigating anxiety about displacement. Indeed, many jobs are exposed to genAI in ways that create substantial potential for augmentation, including among the younger and more educated (Johnston and Makridis, 2025).

6.3 Limitations

Two caveats are warranted. First, while the trust–AI interaction is robust across specifications, effect sizes vary across outcomes; complements are large but not universal. That could be a function of small sample sizes and limited within-person variation in some cases. Second, psychological safety is necessary but not sufficient: without process redesign and capability-building, organizations risk "pilot purgatory," where local experiments fail to translate into durable productivity gains (Brynjolfsson et al., 2021). Future work should trace which concrete managerial interventions (e.g., feedback rituals, standard operating procedure changes) most effectively mediate the

trust–AI complementarity we document. Third, collect more data, particularly longitudinal. As more data becomes available in the Gallup Panel, we will be able to more easily learn how the same individual has fared over time across a wider array of metrics.

7 Conclusion

How has AI adoption evolved in the United States, and what are its effects in organizations? Using longitudinal data from 2023 to 2025 across a nationally representative set of employees, this paper studies the pivotal role that managers play in the organizational transmission of AI. We begin by documenting three empirical regularities that highlight the heterogeneity in AI uptake. First, adoption rates are higher among employees who report clear managerial communication and strategic vision around AI. Second, within-person variation reveals that changes in managerial practices, particularly related to trust in leadership, are associated with shifts in employee engagement and openness to AI. Cross-sectional data would fail to correct for unobserved heterogeneity and non-random sorting into jobs, which prevents the identification of complementarities.

These results contribute to the broader literature on technology adoption, organizational behavior, and empirical management. They reinforce the idea that leadership is not merely a background condition, but a central mechanism in translating technological potential into realized productivity and employee empowerment. In particular, our concept of organizational transmission offers a framework for understanding how innovations spread internally—not just through formal channels, but via social and hierarchical dynamics shaped by managerial behavior. Our findings suggest that investments in digital infrastructure must be matched by investments in managerial capacity and workplace culture. Training managers to be effective communicators and

champions of innovation may be just as important as the technologies themselves. Future research could extend this work by exploring sectoral differences, the role of middle management, and the long-term effects of AI adoption on firm performance and worker well-being.

Tables and Figures

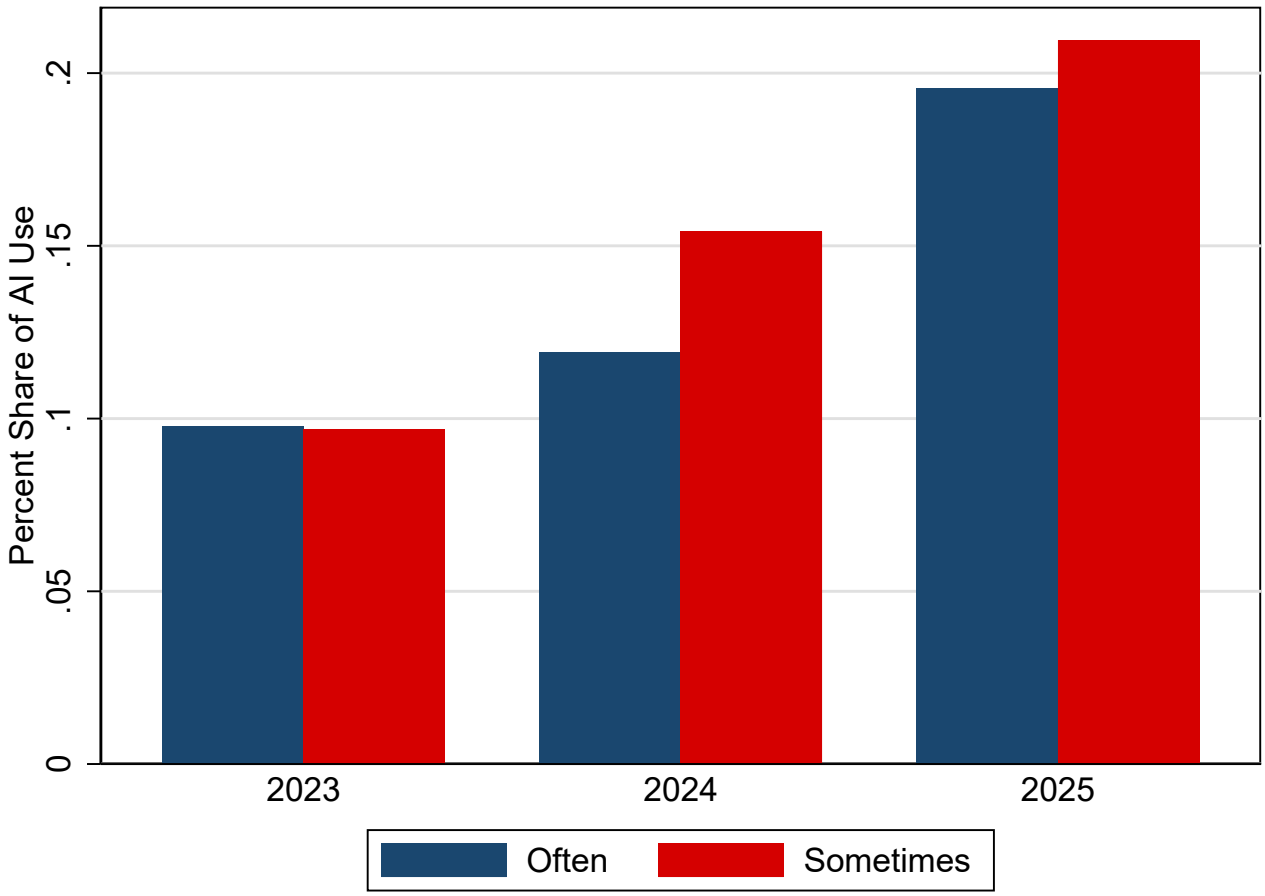


Figure 1: Time Series Adoption of AI, 2023-2025

Notes.—Sources: Gallup Panel, 2023-2025. The figure plots the share of respondents who answer the question "How often do you use artificial intelligence in your role," which include: (a) daily, (b) a few times a week, (c) a few times a month, (d) few times a year, (e) once a year, (f) less often than once a year, and (g) never. We consolidate these answers into three groups: often (daily and a few times a week), sometimes (a few times a month, a few times a year), and never (once a year, less often than once a year, and never). The sample is restricted to full and part time workers, and the observations are weighted.

Table 1: Summary Statistics on the Gallup Practice Panel

	2023		2024		2025	
	(1)		(2)		(3)	
	mean	sd	mean	sd	mean	sd
AI Use - Often	0.09	0.28	0.12	0.32	0.23	0.42
AI Use - Sometimes	0.11	0.31	0.18	0.38	0.23	0.42
AI Use - Never	0.80	0.40	0.71	0.46	0.55	0.50
AI Will Displace Job	0.02	0.15	0.02	0.15	0.02	0.15
Hours Worked/Week	40.3	11.5	39.6	11.4	.	.
Age	48.6	13.7	48.0	13.9	47.6	13.7
Male	0.53	0.50	0.53	0.50	0.50	0.50
White	0.86	0.34	0.84	0.36	0.82	0.38
Black	0.10	0.29	0.10	0.30	0.11	0.31
Full-time	0.86	0.35	0.85	0.36	0.84	0.36
Part-time	0.14	0.35	0.15	0.36	0.16	0.36
Has Children	0.29	0.45	0.30	0.46	0.32	0.47
Married	0.63	0.48	0.60	0.49	0.60	0.49
Observations	8989		9679		8799	

Notes.—Sources: Gallup Panel, 2023-2025. The table reports summary statistics on the key variables by year. AI Use - Often is based on using AI daily or a few times a week; AI Use - Sometimes is based on using AI a few times a month or a few times a year; AI Use - Never is based on using AI once a year, less than once a year, or never. AI Will Displace Job is an indicator for believing that AI is "very likely" to replace their job in the next five years. Demographics include: age, race (White, Black), full-time status, having children, and being married. The sample is restricted to full and part time workers, and the observations are weighted.

Table 2: Workplace Determinants of AI Utilization

Dep. var. =	Use AI Often (1/0)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
AI Will Displace Job	.104***	.100***	.174***	.099***	.100***	.170***	.202***
	[.030]	[.030]	[.046]	[.030]	[.030]	[.044]	[.060]
C: Well-being	.011**						-.005
	[.004]						[.013]
C: Connected		.017***					-.002
		[.005]					[.010]
C: Feedback			.033***				.022**
			[.005]				[.009]
C: Customers				.004			-.009
				[.005]			[.012]
C: Trust					.014***		.031*
					[.005]		[.016]
C: Respect						.024***	-.006
						[.006]	[.011]
Age	-.003***	-.003***	-.002***	-.003***	-.003***	-.002***	-.003***
	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.001]
Male	.019**	.020**	.013	.017*	.020**	.017	.002
	[.010]	[.010]	[.011]	[.010]	[.010]	[.011]	[.016]
White	-.065**	-.067**	-.054**	-.066**	-.067**	-.056**	-.038
	[.027]	[.028]	[.024]	[.029]	[.027]	[.023]	[.037]
Black	-.028	-.033	.016	-.027	-.028	.007	.033
	[.030]	[.030]	[.029]	[.031]	[.030]	[.028]	[.045]
Full time	.057***	.057***	.076***	.056***	.059***	.089***	.070***
	[.013]	[.014]	[.015]	[.014]	[.013]	[.013]	[.021]
Has Children	.024**	.024**	.015	.025**	.024**	.013	.027
	[.012]	[.012]	[.013]	[.012]	[.012]	[.013]	[.019]
Is Married	-.001	-.002	.021*	.000	-.000	.018	.005
	[.010]	[.010]	[.012]	[.010]	[.010]	[.012]	[.017]
Year = 2024	.015	.014	-.073***	.014	.014		
	[.010]	[.010]	[.011]	[.010]	[.010]		
Year = 2025	.104***	.109***		.105***	.104***	.071***	
	[.012]	[.012]		[.012]	[.012]	[.011]	
R-squared	.04	.05	.05	.04	.04	.05	.05
Sample Size	16359	16204	8200	15665	16382	8692	3975
Demographics	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes.—Sources: Gallup Panel, 2023-2025. The table reports the coefficients associated with regressions of an indicator for whether the respondent uses AI daily or frequently during the week (zero otherwise) on a vector of workplace perceptions, an indicator for believing that AI is "very likely" to replace their job in the next five years, and individual covariates and year fixed effects. Workplace (management) practices based on responses to the degree of agreement with the following statements on a 1-5 scale: (a) I feel connected to my organization's culture, (b) My organization consistently delivers on the promises it makes to customers, (c) I trust the leadership of this organization, (d) My organization cares about my overall wellbeing, (e) I have received meaningful feedback in the past week, and (e) I am treated with respect at work. Demographics include: age, race (White, Black), full-time status, having children, and being married. The sample is restricted to full and part time workers, and the observations are weighted.

Table 3: Effects of AI Utilization and Workplace Trust on Employee Engagement

Dep. var. =	High Q12			Burnout			Job Satisfaction		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Workplace Trust	.180***	.106***	.056	-.393***	-.333***	-.263***	.653***	.492***	.243***
	[.005]	[.015]	[.035]	[.018]	[.047]	[.064]	[.013]	[.046]	[.084]
AI Use - Often	.047***	.008	.089	.049	-.038	-.099	-.009	.006	.016
	[.015]	[.031]	[.079]	[.048]	[.120]	[.112]	[.028]	[.053]	[.128]
× Workplace Trust	.027*	.068**	.039	-.013	.005	-.181*	.049	-.009	.280**
	[.015]	[.032]	[.050]	[.053]	[.098]	[.101]	[.034]	[.062]	[.113]
AI Use - Sometimes	-.003	-.014	-.007	.035	.006	-.001	-.015	-.035	-.079
	[.013]	[.025]	[.046]	[.033]	[.073]	[.097]	[.027]	[.043]	[.088]
× Workplace Trust	.014	.047*	.050	.017	.029	-.091	.005	.054	.233***
	[.015]	[.025]	[.041]	[.034]	[.060]	[.091]	[.029]	[.047]	[.087]
R-squared	.21	.77	.80	.19	.80	.88	.45	.82	.86
Sample Size	16995	5683	1210	12481	3295	544	16924	5650	1194
Demographics	Yes	No	No	Yes	No	No	Yes	No	No
Person FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Income x Year FE	No	No	Yes	No	No	Yes	No	No	Yes

Notes.—Sources: Gallup Panel, 2023-2025. The table reports the coefficients associated with regressions of an indicator for having high Q12 employee engagement scores (a 4.5 to 5 average), a z-score of burnout, and a z-score of job satisfaction on a z-score of trust in the workplace, indicators of AI utilization, their interactions, and conditional on individual covariates and fixed effects. AI Use - Often is based on using AI daily or a few times a week; AI Use - Sometimes is based on using AI a few times a month or a few times a year; the normalization is relative to those who use it once a year, less than once a year, or never. Employee engagement is defined as a z-score of the average across the Q12 indicators: (1) I know what is expected of me at work, (2) I have the materials and equipment I need to do my work right, (3) At work, I have the opportunity to do what I do best every day, (4) In the last seven days, I have received recognition or praise for doing good work, (5) My supervisor, or someone at work, seems to care about me as a person, (6) There is someone at work who encourages my development, (7) At work, my opinions seem to count, (8) The mission or purpose of my organization makes me feel my job is important, (9) My associates or fellow employees are committed to doing quality work, (10) I have a best friend at work, (11) In the last six months, someone at work has talked to me about my progress, (12) This last year, I have had opportunities at work to learn and grow. Burnout is a z-score to: "Please indicate how often each of the following statements is true of your primary job (i.e., the job where you spend the most time working). I feel burned out at work: (a) Always, (b) Very often, (c) Sometimes, (d) Rarely, (e) Never." Job satisfaction is similarly defined: "How satisfied are you with your place of employment as a place to work?" Demographics include: age, race (White, Black), full-time status, having children, and being married. The sample is restricted to full and part time workers, and the observations are weighted.

Table 4: Heterogeneous Effects of AI Utilization and Workplace Trust on Employee Engagement

Dep. var. =	High Q12					
	(1)	(2)	(3)	(4)	(5)	(6)
Workplace Trust	.119***	.094***	.155***	.108***	.107***	.104***
	[.019]	[.024]	[.039]	[.025]	[.021]	[.026]
AI Use - Often	.024	-.011	.053	.058	.013	.015
	[.037]	[.051]	[.075]	[.072]	[.043]	[.045]
× Workplace Trust	.053	.085*	.028	.158	.074*	.058
	[.044]	[.047]	[.054]	[.101]	[.044]	[.037]
AI Use - Sometimes	-.027	.006	.059	-.065	.026	-.060*
	[.032]	[.039]	[.067]	[.042]	[.037]	[.032]
× Workplace Trust	.037	.060	.054	.009	.073**	.024
	[.031]	[.040]	[.066]	[.044]	[.033]	[.030]
R-squared	.78	.76	.75	.81	.75	.78
Sample Size	3060	2584	1088	1408	2118	2840
Person FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Sample	Male	Female	T<6	T>6	<45	>45

Notes.—Sources: Gallup Panel, 2023-2025. The table reports the coefficients associated with regressions of an indicator for having high Q12 employee engagement scores (a 4.5 to 5 average) on a z-score of trust in the workplace, indicators of AI utilization, their interactions, and conditional on individual covariates and fixed effects, separately by group. AI Use - Often is based on using AI daily or a few times a week; AI Use - Sometimes is based on using AI a few times a month or a few times a year; the normalization is relative to those who use it once a year, less than once a year, or never. Employee engagement is defined as a z-score of the average across the Q12 indicators: (1) I know what is expected of me at work, (2) I have the materials and equipment I need to do my work right, (3) At work, I have the opportunity to do what I do best every day, (4) In the last seven days, I have received recognition or praise for doing good work, (5) My supervisor, or someone at work, seems to care about me as a person, (6) There is someone at work who encourages my development, (7) At work, my opinions seem to count, (8) The mission or purpose of my organization makes me feel my job is important, (9) My associates or fellow employees are committed to doing quality work, (10) I have a best friend at work, (11) In the last six months, someone at work has talked to me about my progress, (12) This last year, I have had opportunities at work to learn and grow. Burnout is a z-score to: "Please indicate how often each of the following statements is true of your primary job (i.e., the job where you spend the most time working). I feel burned out at work: (a) Always, (b) Very often, (c) Sometimes, (d) Rarely, (e) Never." Job satisfaction is similarly defined: "How satisfied are you with your place of employment as a place to work?" Groups involve: Male/Female, Tenure under 6 years (versus over 6 years), and Age under 45 (versus over 45, capped at 65). The sample is restricted to full and part time workers, and the observations are weighted.

Table 5: Effects of AI Utilization and Workplace Trust on Perceived Productivity from AI

Dep. var. =	Perceived AI Productivity (z-score)			Perceived AI Productivity (1/0)		
	(1)	(2)	(3)	(4)	(5)	(6)
Workplace Trust	-.049	-.363	-.367*	-.017	-.333***	-.281**
	[.170]	[.222]	[.201]	[.014]	[.116]	[.123]
AI Use - Often	.966***	.073	.496	.236***	-.008	.054
	[.188]	[.401]	[.324]	[.027]	[.182]	[.193]
× Workplace Trust	.330*	.597**	.476**	.097***	.386***	.313**
	[.176]	[.263]	[.235]	[.022]	[.125]	[.133]
AI Use - Sometimes	.403**	-.063	.364	.034	-.058	-.019
	[.186]	[.378]	[.277]	[.022]	[.170]	[.181]
× Workplace Trust	.238	.388	.047	.034*	.290**	.174
	[.175]	[.367]	[.239]	[.017]	[.121]	[.131]
R-squared	.16	.73	.80	.13	.77	.78
Sample Size	3357	380	338	3357	380	338
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Person FE	No	Yes	Yes	No	Yes	Yes
Year FE	No	Yes	Yes	No	Yes	Yes
Income x Year FE	No	No	Yes	No	No	Yes

Notes.—Sources: Gallup Panel, 2023-2025. The table reports the coefficients associated with regressions of perceived productivity on AI on a z-score of trust in the workplace, indicators of AI utilization, their interactions, and conditional on individual covariates and fixed effects. AI Use - Often is based on using AI daily or a few times a week; AI Use - Sometimes is based on using AI a few times a month or a few times a year; the normalization is relative to those who use it once a year, less than once a year, or never. Perceived AI productivity is measured as a z-score of a 1-5 index, as well as an indicator based on a 5/5, in response to the following question: "What type of impact do you think these artificial intelligence (AI) tools will have on your individual productivity and efficiency at work?" The responses on perceived AI productivity range from extremely negative to extremely positive. Demographics include: age, race (White, Black), full-time status, having children, and being married. The sample is restricted to full and part time workers, and the observations are weighted.

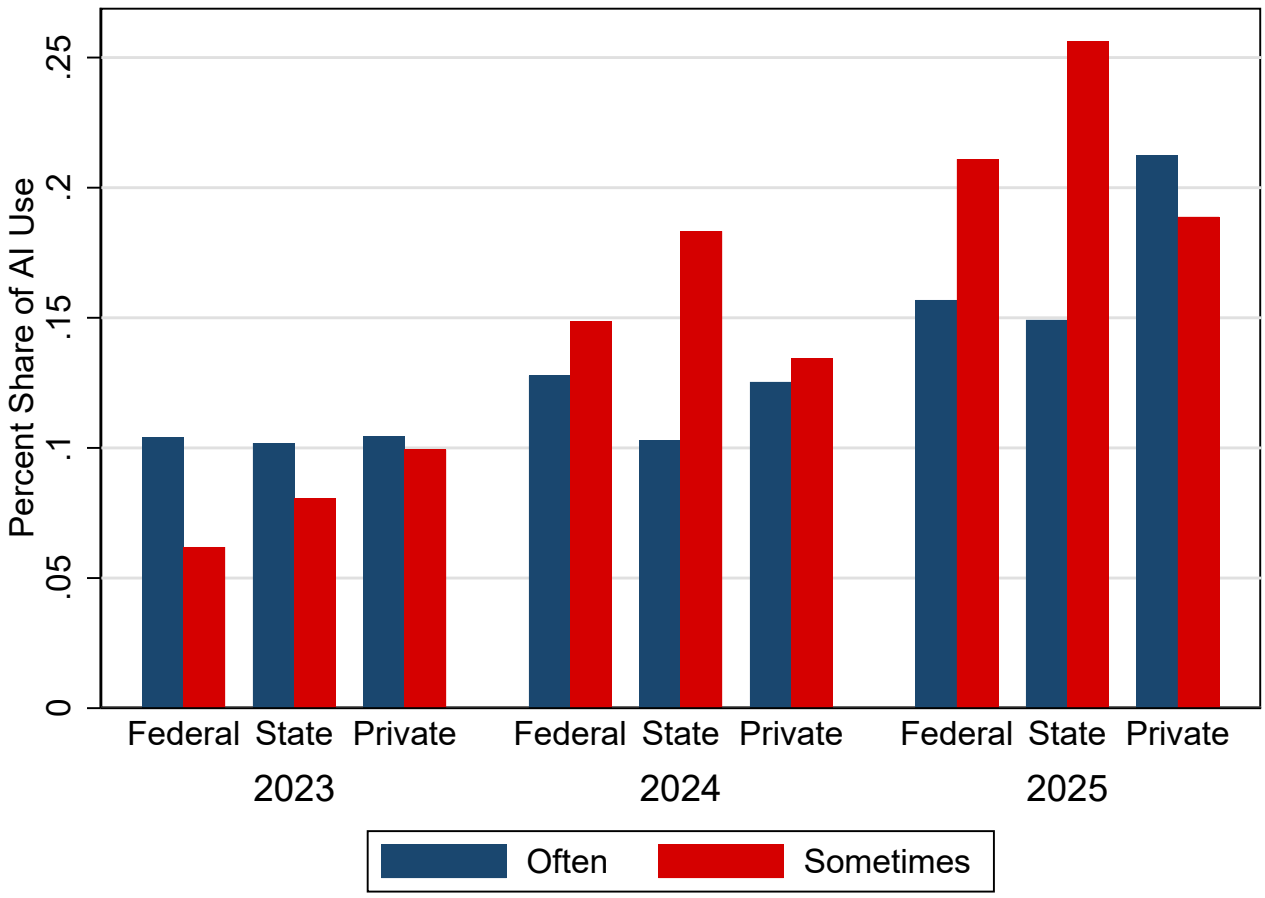


Figure 2: AI Adoption Across Public and Private Sectors, 2023-2025

Notes.—Sources: Gallup Panel, 2023-2025. The figure plots the share of respondents separately for federal, state, and private sector employees who answer the question "How often do you use artificial intelligence in your role," which include: (a) daily, (b) a few times a week, (c) a few times a month, (d) few times a year, (e) once a year, (f) less often than once a year, and (g) never. We consolidate these answers into three groups: often (daily and a few times a week), sometimes (a few times a month, a few times a year), and never (once a year, less often than once a year, and never). The sample is restricted to full and part time workers, and the observations are weighted.

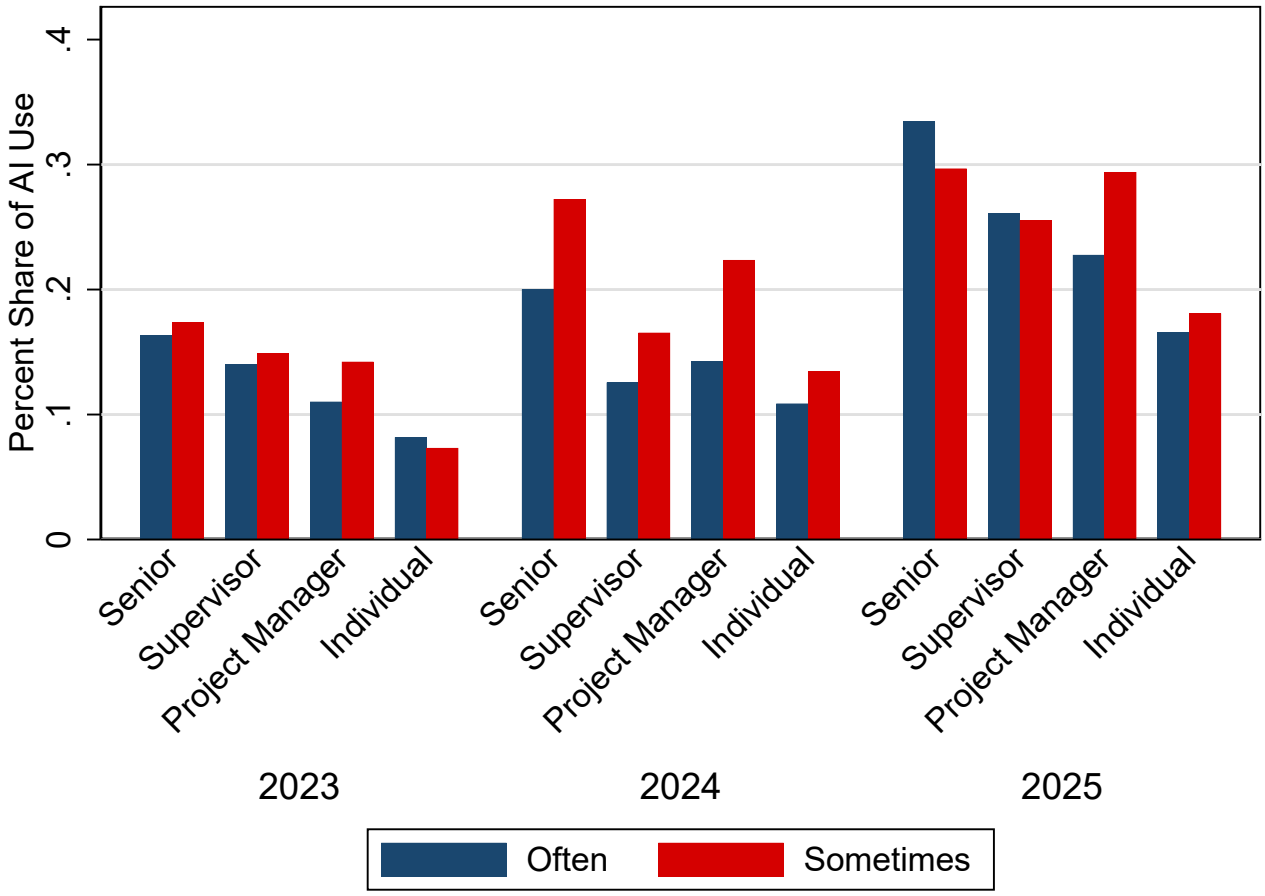


Figure 3: AI Adoption Across Employee Hierarchical Structure, 2023-2025

Notes.—Sources: Gallup Panel, 2023-2025. The figure plots the share of respondents separately for employees at different parts of the hierarchical structure who answer the question "How often do you use artificial intelligence in your role," which include: (a) daily, (b) a few times a week, (c) a few times a month, (d) few times a year, (e) once a year, (f) less often than once a year, and (g) never. We consolidate these answers into three groups: often (daily and a few times a week), sometimes (a few times a month, a few times a year), and never (once a year, less often than once a year, and never). The hierarchy is based on the answer to the following: "Which of the following best describes your role or job responsibilities within your organization? (a) Senior leader - I am a senior leader, or a leader who manages other managers, (b) Manager/Supervisor - I am a manager or supervisor whose main responsibilities are the work output of other people, (c) Project Manager - I am a project manager who is responsible for other people's work, (d) Individual Contributor - I am responsible for my own work or output." The sample is restricted to full and part time workers, and the observations are weighted.

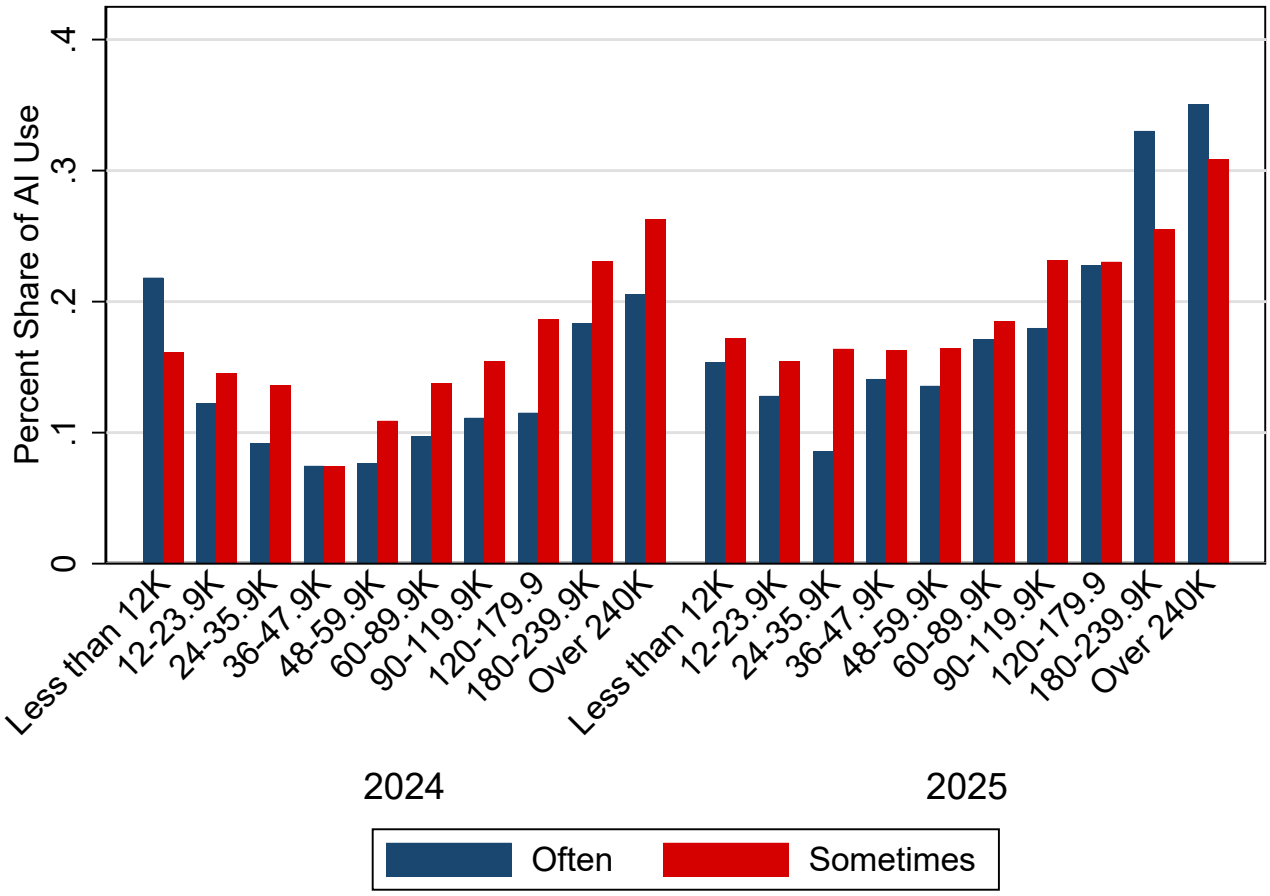


Figure 4: AI Adoption Across Income Groups, 2023-2025

Notes.—Sources: Gallup Panel, 2023-2025. The figure plots the share of respondents separately for employees at income levels who answer the question "How often do you use artificial intelligence in your role," which include: (a) daily, (b) a few times a week, (c) a few times a month, (d) few times a year, (e) once a year, (f) less often than once a year, and (g) never. We consolidate these answers into three groups: often (daily and a few times a week), sometimes (a few times a month, a few times a year), and never (once a year, less often than once a year, and never). The hierarchy is based on the answer to the following: "Which of the following best describes your role or job responsibilities within your organization? (a) Senior leader - I am a senior leader, or a leader who manages other managers, (b) Manager/Supervisor - I am a manager or supervisor whose main responsibilities are the work output of other people, (c) Project Manager - I am a project manager who is responsible for other people's work, (d) Individual Contributor - I am responsible for my own work or output." The sample is restricted to full and part time workers, and the observations are weighted.

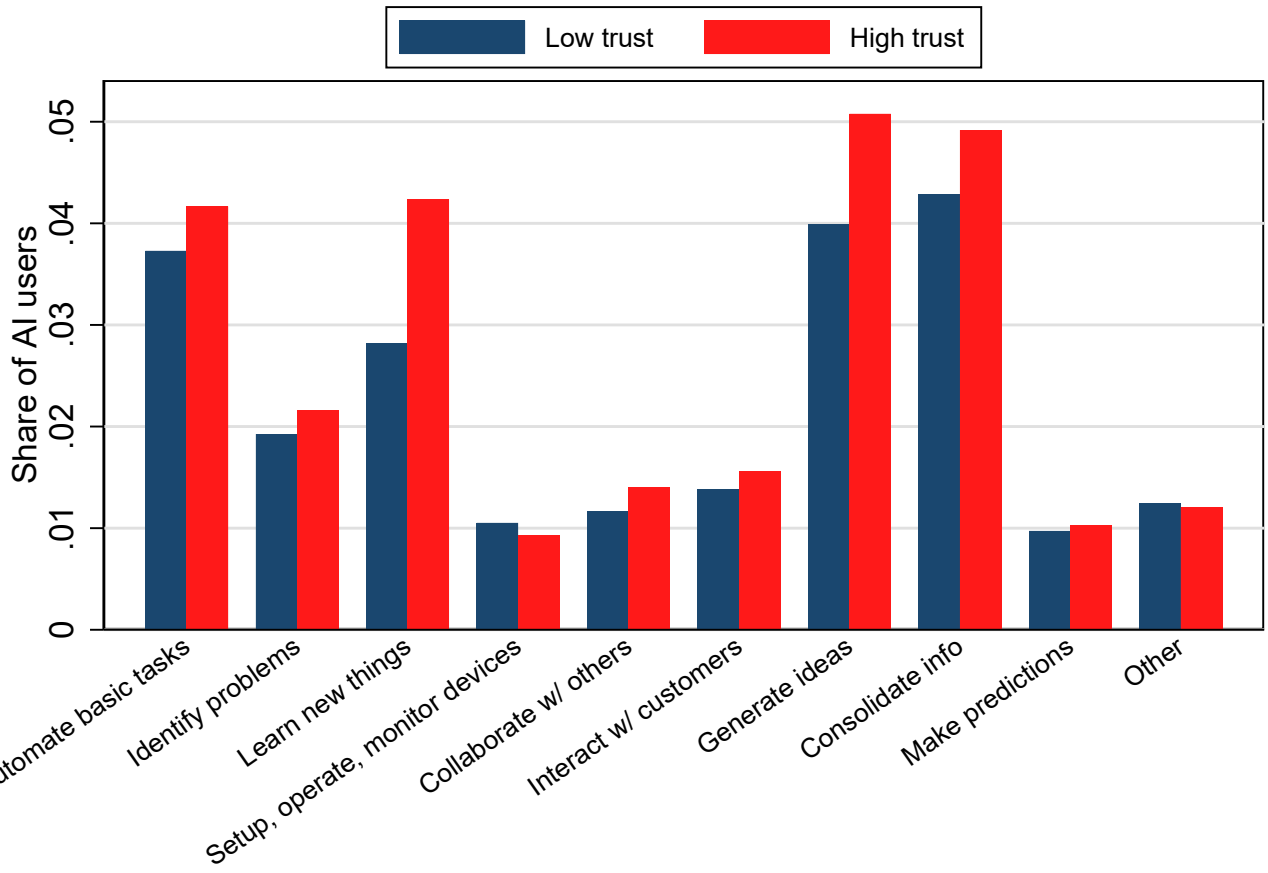


Figure 5: Composition of AI Use-cases by Employees, 2024-2025

Notes.—Sources: Gallup Panel, 2023-2025. The figure plots the share of respondents across different AI applications distinguishing among respondents who report high versus low trust in leadership (with high equal to a score of 4/5 or 5/5). The sample is restricted to full and part time workers, and the observations are weighted.

A Online Appendix

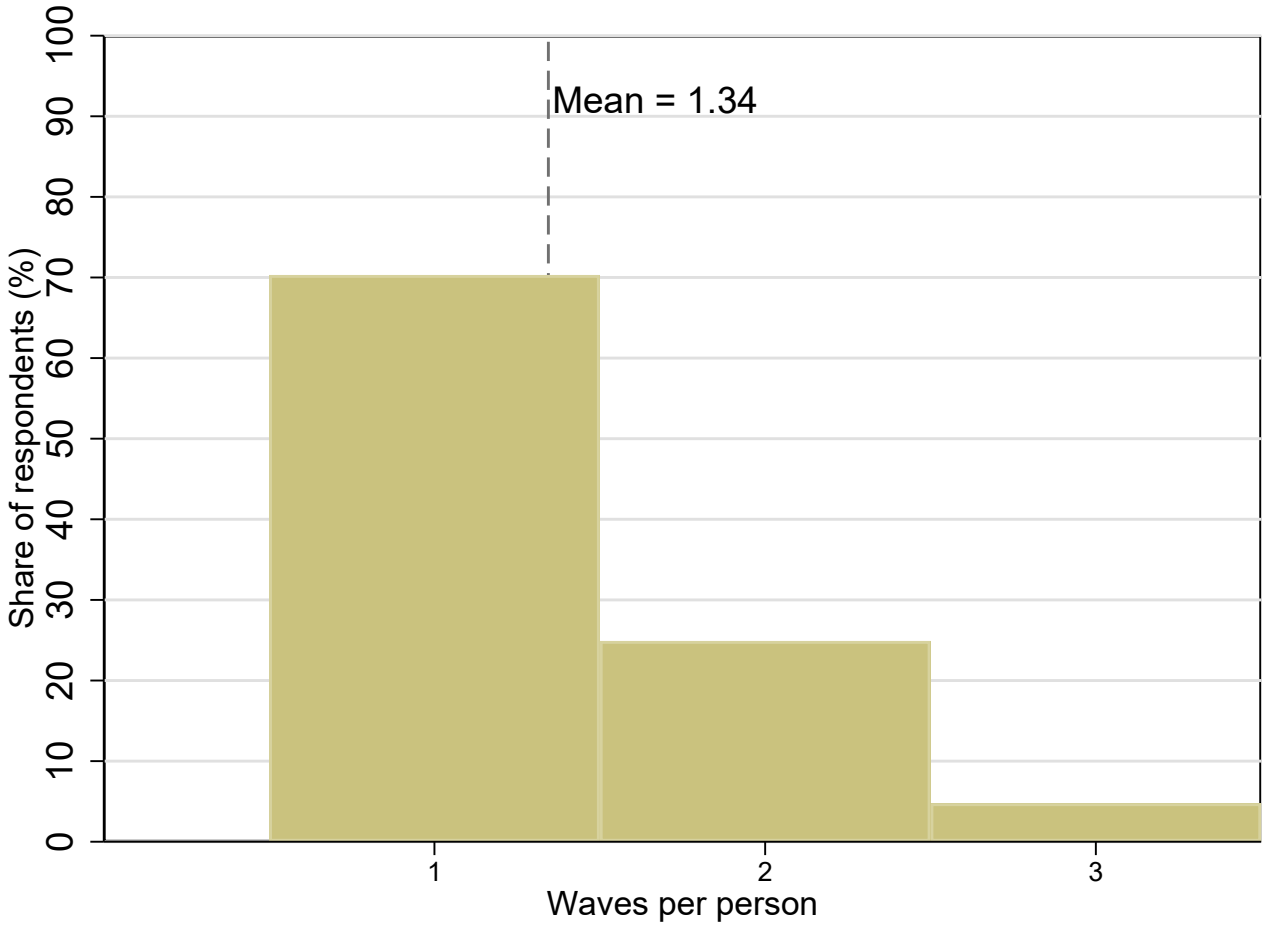


Figure A.1: Descriptive Evidence on Longitudinal Variation

Notes.—Sources: Gallup Panel, 2023-2025. The figure plots the share of respondents across the potential number of waves in the data.

Table A.1: Descriptive Evidence on Switchers in the Panel

	Count	Percent
Unique persons	20428	.
Persons observed in $\geq$2 waves	6064	.
Ever switchers among $\geq$2 waves	2049	33.79
Valid adjacent-wave transitions	7039	.
Adoptions: Never $\rightarrow$ (Sometimes/Often)	1357	19.28
Cessations: (Sometimes/Often) $\rightarrow$ Never	367	5.21

Notes.—Sources: Gallup Panel. The table reports descriptive statistics on the number of respondents under different thresholds in the data, particularly around "AI switchers."

Table A.2: Descriptive Evidence on Transition Matrix for Switchers

	Never	Sometimes	Often
Never	74.75	16.41	8.84
Sometimes	22.62	44.11	33.26
Often	21.23	20.52	58.25

Notes.—Sources: Gallup Panel. The table reports descriptive statistics on transition matrix for "AI switchers."

Table A.3: Robustness: Workplace Determinants of AI Utilization

Dep. var. =	Use AI Often or Sometimes (1/0)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
AI Will Displace Job	.097***	.093***	.161***	.087**	.091***	.152***	.180***
	[.035]	[.035]	[.048]	[.035]	[.034]	[.048]	[.068]
C: Well-being	.026***						-.005
	[.006]						[.018]
C: Connected		.034***					.015
		[.006]					[.017]
C: Feedback			.038***				.019
			[.007]				[.014]
C: Customers				.006			-.036**
				[.006]			[.015]
C: Trust					.027***		.052***
					[.006]		[.019]
C: Respect						.027***	-.013
						[.007]	[.016]
Age	-.005***	-.005***	-.005***	-.005***	-.005***	-.006***	-.006***
	[.000]	[.000]	[.001]	[.000]	[.000]	[.001]	[.001]
Male	.042***	.044***	.046***	.037***	.042***	.048***	.037*
	[.012]	[.012]	[.015]	[.012]	[.012]	[.015]	[.022]
White	-.075***	-.079***	-.071**	-.083***	-.075***	-.069**	-.060
	[.028]	[.028]	[.030]	[.029]	[.027]	[.029]	[.044]
Black	-.044	-.052*	.013	-.051	-.044	.010	.011
	[.031]	[.031]	[.036]	[.032]	[.031]	[.035]	[.054]
Full time	.103***	.099***	.131***	.098***	.105***	.141***	.111***
	[.018]	[.018]	[.021]	[.019]	[.018]	[.020]	[.030]
Has Children	.031**	.029**	.033*	.032**	.031**	.035**	.033
	[.014]	[.014]	[.017]	[.014]	[.014]	[.017]	[.025]
Is Married	.014	.012	.028*	.017	.014	.026	.018
	[.012]	[.012]	[.016]	[.013]	[.012]	[.016]	[.022]
Year = 2024	.071***	.069***	-.129***	.066***	.068***		
	[.013]	[.013]	[.014]	[.013]	[.013]		
Year = 2025	.213***	.221***		.213***	.213***	.130***	
	[.014]	[.014]		[.014]	[.014]	[.014]	
R-squared	.08	.08	.08	.08	.08	.08	.06
Sample Size	16359	16204	8200	15665	16382	8692	3975
Demographics	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes.—Sources: Gallup Panel, 2023-2025. The table reports the coefficients associated with regressions of an indicator for whether the respondent uses AI daily, or frequently during the week or sometimes during the year (zero otherwise) on a vector of workplace perceptions, an indicator for believing that AI is "very likely" to replace their job in the next five years, and individual covariates and year fixed effects. Workplace (management) practices based on responses to the degree of agreement with the following statements on a 1-5 scale: (a) I feel connected to my organization's culture, (b) My organization consistently delivers on the promises it makes to customers, (c) I trust the leadership of this organization, (d) My organization cares about my overall wellbeing, (e) I have received meaningful feedback in the past week, and (e) I am treated with respect at work. Demographics include: age, race (White, Black), full-time status, having children, and being married. The sample is restricted to full and part time workers, and the observations are weighted.

Table A.4: Effects of AI Utilization and Workplace Trust on Q12 Employee Engagement

Dep. var. =	Expectations	Materials	Do Best	Recognition	Manager	Development	Opinions	Mission	Quality	Best Friend	Progress	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Workplace Trust	.229***	.241***	.323***	.368***	.405***	.384***	.469***	.381***	.330***	.071*	.343***	.467***
	[.051]	[.048]	[.039]	[.047]	[.040]	[.040]	[.044]	[.049]	[.042]	[.041]	[.041]	[.044]
AI Use - Often	-.173**	.026	-.088	.003	-.017	-.030	.015	-.003	-.093	.039	.080	-.039
	[.085]	[.073]	[.076]	[.071]	[.057]	[.073]	[.077]	[.076]	[.075]	[.058]	[.071]	[.076]
× Workplace Trust	.154**	.059	.149*	.068	.038	.050	-.037	.115*	.073	-.022	-.013	.001
	[.063]	[.076]	[.077]	[.061]	[.061]	[.062]	[.087]	[.065]	[.110]	[.049]	[.057]	[.058]
AI Use - Sometimes	-.110	-.090	-.083	-.077	-.050	-.156**	-.105	-.107*	-.139**	-.016	-.020	-.034
	[.068]	[.068]	[.063]	[.064]	[.064]	[.065]	[.069]	[.058]	[.066]	[.045]	[.058]	[.054]
× Workplace Trust	.114*	.062	.157***	.088	.035	.044	-.006	.090	.085	.061	-.071	-.034
	[.064]	[.085]	[.052]	[.072]	[.057]	[.063]	[.058]	[.059]	[.053]	[.051]	[.052]	[.052]
R-squared	.77	.78	.80	.77	.82	.83	.82	.82	.81	.83	.81	.82
Sample Size	5646	5669	5628	5205	5499	5337	5555	5573	5588	5099	5112	5349
Person FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes.—Sources: Gallup Panel, 2023-2025. The table reports the coefficients associated with regressions of an indicator for having high Q12 employee engagement scores (a 4.5 to 5 average), a z-score of burnout, and a z-score of job satisfaction on a z-score of trust in the workplace, indicators of AI utilization, their interactions, and conditional on individual covariates and fixed effects. The Q12 include: (1) I know what is expected of me at work, (2) I have the materials and equipment I need to do my work right, (3) At work, I have the opportunity to do what I do best every day, (4) In the last seven days, I have received recognition or praise for doing good work, (5) My supervisor, or someone at work, seems to care about me as a person, (6) There is someone at work who encourages my development, (7) At work, my opinions seem to count, (8) The mission or purpose of my organization makes me feel my job is important, (9) My associates or fellow employees are committed to doing quality work, (10) I have a best friend at work, (11) In the last six months, someone at work has talked to me about my progress, (12) This last year, I have had opportunities at work to learn and grow. AI Use - Often is based on using AI daily or a few times a week; AI Use - Sometimes is based on using AI a few times a month or a few times a year; the normalization is relative to those who use it once a year, less than once a year, or never. Employee engagement is defined as a z-score of the average across the Q12 indicators: (1) I know what is expected of me at work, (2) I have the materials and equipment I need to do my work right, (3) At work, I have the opportunity to do what I do best every day, (4) In the last seven days, I have received recognition or praise for doing good work, (5) My supervisor, or someone at work, seems to care about me as a person, (6) There is someone at work who encourages my development, (7) At work, my opinions seem to count, (8) The mission or purpose of my organization makes me feel my job is important, (9) My associates or fellow employees are committed to doing quality work, (10) I have a best friend at work, (11) In the last six months, someone at work has talked to me about my progress, (12) This last year, I have had opportunities at work to learn and grow. Burnout is a z-score to: "Please indicate how often each of the following statements is true of your primary job (i.e., the job where you spend the most time working). I feel burned out at work: (a) Always, (b) Very often, (c) Sometimes, (d) Rarely, (e) Never." Job satisfaction is similarly defined: "How satisfied are you with your place of employment as a place to work?" Demographics include: age, race (White, Black), full-time status, having children, and being married. The sample is restricted to full and part time workers, and the observations are weighted.

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Table A.5: Effects of AI Utilization and Workplace Trust on Employee Engagement (Exploiting Job Switcher Heterogeneity)

Dep. var. =	High Q12		Burnout		Job Satisfaction	
	(1)	(2)	(3)	(4)	(5)	(6)
Workplace Trust	.106***	.195***	-.333***	-.294**	.492***	.635***
	[.015]	[.040]	[.047]	[.137]	[.046]	[.137]
AI Use - Often	.008	.110	-.038	-.239	.006	.166
	[.031]	[.081]	[.120]	[.378]	[.053]	[.151]
× Workplace Trust	.068**	.022	.005	.308	-.009	-.073
	[.032]	[.059]	[.098]	[.310]	[.062]	[.171]
AI Use - Sometimes	-.014	.044	.006	.112	-.035	-.017
	[.025]	[.082]	[.073]	[.238]	[.043]	[.123]
× Workplace Trust	.047*	.053	.029	.312	.054	.073
	[.025]	[.076]	[.060]	[.189]	[.047]	[.131]
R-squared	.77	.73	.80	.72	.82	.80
Sample Size	5683	772	3295	336	5650	762
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Person FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Recent Job Change	No	Yes	No	Yes	No	Yes

Notes.—Sources: Gallup Panel, 2023-2025. The table reports the coefficients associated with regressions of an indicator for having high Q12 employee engagement scores (a 4.5 to 5 average), a z-score of burnout, and a z-score of job satisfaction on a z-score of trust in the workplace, indicators of AI utilization, their interactions, and conditional on individual covariates and fixed effects, restricted to the traditional sample as well as the set of recent job switchers (job tenure under 4 years). AI Use - Often is based on using AI daily or a few times a week; AI Use - Sometimes is based on using AI a few times a month or a few times a year; the normalization is relative to those who use it once a year, less than once a year, or never. Employee engagement is defined as a z-score of the average across the Q12 indicators: (1) I know what is expected of me at work, (2) I have the materials and equipment I need to do my work right, (3) At work, I have the opportunity to do what I do best every day, (4) In the last seven days, I have received recognition or praise for doing good work, (5) My supervisor, or someone at work, seems to care about me as a person, (6) There is someone at work who encourages my development, (7) At work, my opinions seem to count, (8) The mission or purpose of my organization makes me feel my job is important, (9) My associates or fellow employees are committed to doing quality work, (10) I have a best friend at work, (11) In the last six months, someone at work has talked to me about my progress, (12) This last year, I have had opportunities at work to learn and grow. Burnout is a z-score to: "Please indicate how often each of the following statements is true of your primary job (i.e., the job where you spend the most time working). I feel burned out at work: (a) Always, (b) Very often, (c) Sometimes, (d) Rarely, (e) Never." Job satisfaction is similarly defined: "How satisfied are you with your place of employment as a place to work?" Demographics include: age, race (White, Black), full-time status, having children, and being married. The sample is restricted to full and part time workers, and the observations are weighted.

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