Organizational Transmission of AI: Managerial Influence on Generative AI Adoption

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Abstract

Using longitudinal data from the Gallup Panel with over 30,000 U.S. respondents, surveyed between 2023 and 2025, I document new patterns in the heterogeneous adoption of generative AI and its "organizational transmission" within firms. I 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, I demonstrate that the complementarity between AI adoption and workplace culture shapes employee outcomes, such as engagement and burnout. 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.

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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.[2] Using a longitudinal, nationally representative sample of more than 10,000 U.S. workers observed from 2023 to 2025, we document five regularities about heterogeneous adoption in organizations. First, adoption accelerated sharply: the share using AI often rose from 9% in 2023 to 24% in 2025, and the share using sometimes rose from 10% to 23% over the same period. Second, diffusion broadened in the public sector. By 2025 Q3, often use reached about 21% in both federal and state government versus 24% in the private sector, with the state sector showing the largest pool of occasional users. Third,

[2]The survey measurement draws on a question about AI in general. Cognitive testing and other diagnostics suggest that respondents typically answer with genAI in mind.

adoption follows the hierarchy. By 2025 Q3, frequent use was roughly 38% among senior leaders, 22% among supervisors, and 20% among project managers and individual contributors. Fourth, uptake is broad across the income distribution rather than strictly monotone in income. By 2025 Q3, often use is roughly one third for both lower and middle income groups, with sometimes use ranging from about 19% to 28% across brackets. Fifth, workplace practices remain powerful correlates of active use. Meaningful feedback and trust in leadership are the most statistically and economically significant predictors of AI utilization, conditional on demographics.

Motivated by these empirical patterns, I 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, I 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.

This paper focuses on the role of managers in driving genAI adoption and what I 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, my paper 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).[3] 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.

This 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 exper-

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

imentation 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., 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

I primarily leverage data from the Gallup Practice Panel, a longitudinal survey of U.S. adults. The panel is probability based and surveys workers (18+) about workplace experiences, management, and well-being, with core questions repeated and new items added on emerging topics such as 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, which allows observation of AI adoption across a broad swath of the workforce. My analytic file restricts to employed respondents and links individuals across waves. The resulting sample includes 9,329 workers in 2023, 9,982 in 2024, and 30,793 in 2025. Although the full sample each wave consists of roughly 20,000 respondents, not all workers are surveyed about their AI use. However, starting in Q2:2025, AI questions are asked quarterly.

The resulting Gallup Panel sample contains 30,525 unique respondents and 50,104 person wave observations across 2023 to 2025.[4] Of these, 14,012 respondents are observed in at least two waves. Among the multi wave sample, 38.39% (5,379/14,012) change their AI use category at least once over their observed panel. Considering adjacent wave transitions, there are 19,579 valid t-1 $\rightarrow$ t comparisons. Of these, 17.68% are adoptions (Never $\rightarrow$ Sometimes/Often) and 5.87% are cessations ((Sometimes/Often) $\rightarrow$ Never). The remaining 76.45% are either stable within category or movements between Sometimes and Often. Net flows favor adoption by 2,311 transitions, a ratio of roughly 3.01:1. Row percentages from the transition matrix for switchers indicate persistence and directional movement. Among those previously Never, 73.69% remain Never, 17.01% move to Sometimes, and 9.31% move to Often. Among those previously Sometimes, 48.72% remain Sometimes, 29.31% move to Often, and 21.97% revert to Never. Among those previously Often, 67.68% remain Often, 19.21% move to Sometimes, and 13.11% move to Never. These flows show that diffusion outpaces abandonment over the sample window and that movements up the intensity ladder are common, especially from Sometimes to Often.

[4]Figure A.1 summarizes the longitudinal variation. The mean number of waves per person is 1.64, and 46% of respondents are observed in at least two waves. Tables A.1 and A.2 report the share of AI adopters and the transition matrix across AI use categories.

2.1.1 AI Measurement

The primary outcome is an indicator of AI adoption at the individual level. In particular, I 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. I 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). Before asking this question, respondents are given a definition of AI: "Artificial intelligence is when a computer does or enhances a task that is normally performed by a person." Figure 1 visualizes the time path of adoption and shows two distinct phases. First, a gradual expansion from 2023 to 2024, with modest gains in frequent use and a larger rise in occasional use. Second, an acceleration in 2025. The quarterly cut for 2025 indicates that often moves from roughly 20% in Q2 to about 23% in Q3, while sometimes stabilizes near 21%. The cumulative shares of often and sometimes totals roughly 40%, consistent with the numbers from Bick et al. (2025).[5]

In some specifications, I 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." I 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."

Table 1 summarizes the panel composition and baseline measures by year. The distribution

[5]Figure 5 in the Online Appendix summarizes the variation in AI utilization across industries.

of genAI use shifts markedly over the sample. In 2023, 9% report using genAI often and 10% report using it sometimes, while 81% report never using it. By 2024, the share using genAI often edges up to 11% and sometimes rises to 30%, with never falling to 71 percent. The largest change occurs by 2025: often reaches 24% and sometimes 23%, while never declines to 53%. The fraction who say AI is very likely to displace their job remains low and stable at about 2% each year, although this question is not asked in Q3:2025. Demographic covariates are stable. The sample skews slightly male at roughly one half across years, and the age distribution centers near the late forties. Full time employment remains above 80% each year, conditional on respondents being in the working population. Marriage rates decline modestly from 64% to 60%. Average weekly hours fall from about 39.4 in 2023 to 35.1 in 2025, with a wider dispersion in 2025, which we account for with fixed effects and controls in subsequent specifications.

2.1.2 Public v. Private Sector

Figure 2 distinguishes federal, state, and private employees and shows steady diffusion with a clear step up in 2025. In 2023, "often" use is about 10% in all three sectors, while "sometimes" use is roughly 6% among federal workers, 8% in state, and 10% in private. By 2024, "often" rises to about 12% in federal, 10% in state, and 12% in private, and "sometimes" increases to about 15% in federal, 18% in state, and 13% in private. The quarterly cut for 2025 shows acceleration: in Q2 2025, "often" reaches about 15% in federal and state and 21% in private, with "sometimes" at roughly 21% in federal, 25% in state, and 19% in private. By Q3 2025, "often" climbs to about 21% in both federal and state and to 24% in private, while "sometimes" remains near 21% in federal, 25% in state, and 19% in private. The private sector leads on routine use, and the state

sector exhibits the highest share of occasional users.

2.1.3 Work Type

Figure 3 separates adoption by organizational role and shows a clear gradient that widens over time. In 2023, frequent use is modest across the board, roughly 17% among senior leaders, 12% among supervisors, 8% among project managers, and 7% among individual contributors; occasional use ranges from about 17% for senior leaders and 14% for supervisors to 13% for project managers and 8% for individual contributors. By 2024, adoption rises in every role: frequent use is about 20% for senior leaders and 12% for supervisors, with project managers near 10% and individual contributors near 9%; occasional use reaches roughly 16% for senior leaders, 15% for supervisors, 22% for project managers, and 13% for individual contributors.

The quarterly cuts for 2025 show further acceleration. In Q2 2025, frequent use climbs to about 33% for senior leaders, 25% for supervisors, and 16% for both project managers and individual contributors, while occasional use is near 30% for senior leaders, 24% for supervisors, and 29% for both project managers and individual contributors. By Q3 2025, frequent use reaches about 38% for senior leaders, 22% for supervisors, 20% for project managers, and 20% for individual contributors; occasional use is about 28% for senior leaders, 28% for supervisors, 29% for project managers, and 19% for individual contributors. Leadership and project oriented roles adopt earlier and at higher intensity than individual contributors, consistent with the predictions from models of human and AI collaboration that are a function of coordination costs (Lee and Makridis, 2023).

2.1.4 Income

Figure 4 tracks adoption by income. In 2023, "often" ranges from roughly 12% among earners below $12k to about 15% in the $60–89.9k group, with "sometimes" rising from about 6% at the bottom to roughly 14% near the top. In 2024, levels increase across the distribution, with "often" near 9–15% and "sometimes" around 11–16%, leaving a modest advantage for higher earners. The acceleration in 2025 is broad based, concentrated primarily in Q2. By Q2 2025, "often" reaches about 22–23% at both the bottom and the top of the income distribution, while "sometimes" is roughly 16–25% across brackets. By Q3 2025, "often" climbs to about 33–36% in the $60–89.9k group and to roughly 32–34% below $12k, with "sometimes" near 19–28% across brackets.

2.1.5 Industries and Occupations

Starting with industries, Figure 5 shows that adoption is highest in technology and math, where 39% report using AI often and 24% sometimes. Professional services and finance also sit near the top, with roughly 25% often and 23% sometimes. Legal and education display a different mix: often is about 19% in each, while sometimes is closer to 24–25%, suggesting wider experimentation without the same depth of routine use. Arts and media as well as community and social services show midrange uptake, with often near 18–20% and sometimes near 20–22%. Transportation and health care cluster in the middle of the distribution with roughly 14–16% often and similar levels sometimes. Retail and sales, hospitality and travel, and industrial and extraction are lower. Hospitality and travel is the clear laggard, with about 11% often and 6% sometimes. Overall, industries anchored in information work show deeper integration, while customer facing and manual sectors

exhibit more limited use because these tasks are less exposed (Eloundou et al., 2024).

Turning to occupations, Figure 6, Computer and math occupations lead by a wide margin, with about 37% often and 26% sometimes. Business and finance follows with 26% often and 22% sometimes. Architecture and engineering, and the life, physical, and social sciences sit just below that tier, each around 19-20% often and 18-26% sometimes. Arts and media combines moderate frequent use, near 20%, with high occasional use near 28%. Health support roles show a pronounced skew toward experimentation rather than routine use, with only about 9% often but 28% sometimes. Office and administrative support displays a similar pattern at lower levels, roughly 12% often and 16% sometimes. Legal and education lie in the middle of the distribution with often near 17–18% and sometimes near 19–21%. Protective service, transport and moving, and personal care have low frequent use, around 9–12%. Food serving and building and grounds are the lowest across both categories, roughly 7% or less often and 2–3% sometimes. The gradient aligns with task structure: knowledge and analytic roles concentrate frequent use, while hands on service occupations adopt more slowly and primarily at the occasional margin.

2.1.6 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.

2.1.7 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?"

2.1.8 Individual Controls

The primary controls include: age, male, race (White, Black), full time and part time status, having children, and married. I also observe the employee's annual income bin, education, industry, and occupational classification (using a mapping of job titles to SOC-codes), and tenure, although these latter variables are used only in robustness checks.

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 estimates correlates of using genAI often at work. Columns 1 through 6 enter each workplace perception separately; sample size varies based on response rates for each item.[6] Item availability varies by year: "I have received meaningful feedback in the past week" is not observed in 2025, and "I am treated with respect at work" is not observed in 2024. In the single item models, each factor is positively associated with frequent use, and all but "delivers on promises to customers" are large and precisely estimated. In the saturated model in column 7, feedback remains the strongest predictor (coefficient 0.021, s.e. 0.005), trust stays positive and statistically different from zero (0.014, s.e. 0.007), and connectedness and respect are smaller but still marginally significant (0.012 and 0.011). The customer oriented item and overall well being lose significance once other perceptions are included. Interpreted as linear probability estimates, a one standard deviation (sd) increase for feedback is associated with a 2.1 percentage point (pp) higher probability of frequent genAI use, and a 1sd increase in trust corresponds to about 1.4pp.

Controls behave as expected. Full time status is associated with roughly 8.0pp higher frequent use, while White respondents report lower frequent use by 5.1 to 6.8pp across specifications. Men are 1.5 to 1.8pp higher than women, age loads negatively but with a very small magnitude, and being married or having children is associated with modestly higher frequent use. Year indicators capture the aggregate rise in adoption, with the 2025 dummy near 12.3pp relative to 2023. R-squares are 0.04 to 0.05, and sample sizes range from 21,992 to 38,438 depending on the item.

[6] These response rates are not due to non-response, but rather that only a subset of the full sample was given all the questions on workplace practices; many were only asked some of them.

Table A.4 in the Online Appendix also includes an indicator for whether an individual believes that AI is "very likely" to displace their job in the next five years. (It is included as robustness, rather than the baseline, because it is not part of the updated quarterly questions, e.g. in Q3:2025.) Perhaps counterintuitively, individuals who are worried that AI will displace their job are 10-17 percentage points more likely to use AI often. This 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 time fixed effects, and columns 3/6/9 further include income $\times$ time fixed effects (standard errors clustered by person).[7]

Starting with the Q12 questions (cols. 1-3), workplace trust is a first-order predictor of the z-score of Q12 employee engagement: 0.679 (s.e.=0.009) in the pooled cross-section, 0.459 (0.018) with person fixed effects, and 0.448 (0.018) with income by year fixed effects. The main effect of

[7]The time fixed effects are year dummies up until 2025 when responses become available at a quarterly frequency starting in Q3 (with Q2 as the usual start date in the annual surveys).

"often" genAI use is positive in the pooled model, 0.100 (0.018), and is small and not distinguishable from zero once person fixed effects are introduced, 0.019 (0.034) and 0.047 (0.031). However, the interaction terms indicate complementarity at higher intensity of use: "often" × trust is 0.031 (0.020) in the pooled model and remains positive and significant with person fixed effects and with the saturated controls, 0.062 (0.029) and 0.058 (0.027). The "sometimes" × trust interaction is negative in the pooled model, -0.068 (0.018), and near zero with fixed effects.[8]

Turning to burnout (cols. 4-6), trust is strongly associated with lower burnout: -0.402 (0.012), -0.277 (0.022), and -0.275 (0.022) across the three specifications. Main effects of genAI use attenuate with fixed effects and are not statistically different from zero. Interactions of use with trust are small and imprecise in columns 5 and 6, indicating that trust, rather than use alone or its interaction, is the central correlate of reduced burnout.

Finally, for job satisfaction (cols. 7-9), trust is again large and precise: 0.177 (0.006), 0.142 (0.010), and 0.138 (0.011). Main effects of genAI use are modest once fixed effects are included. Complementarity is most consistent here: "often" × trust equals 0.023 (0.012) in the pooled model, 0.028 (0.016) with person fixed effects, and 0.030 (0.017) with the saturated controls. Interactions for "sometimes" are near zero. In summary, trust is a robust correlate of higher engagement and satisfaction and lower burnout, while the standalone association of genAI use largely vanishes in within-person comparisons. The interaction patterns show that trust and frequent use are complements: adopters in high-trust workplaces see disproportionately better outcomes.

[8]Table A.5 in the Online Appendix disaggregates these results for each separate Q12 index. Workplace trust loads positively on every component, with the largest coefficients on opinions count, manager cares, recognition, development, expectations, mission, and progress, and a smaller but positive association for best friend. Frequent genAI use by itself has little systematic effect across items, with a modest positive on opinions. The complementarities appear in specific channels: often × trust is positive for expectations, doing one's best, and mission, and sometimes × trust is positive for expectations, mission, and quality. Occasional use without strong trust correlates negatively with several items, including do best, recognition, mission, and quality, consistent with experimentation that is not embedded in supportive practices.

Table A.6 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.

Before continuing, it is useful to pause and place these results in the context of a broader literature in organizational theory and personnel economics on managers and employee attitudes, including burnout. In the Job Demands and Resources tradition, AI adoption raises new demands through task uncertainty, accelerated cadence, monitoring, and learning requirements; trust operates as a core resource that creates psychological safety, clear experimentation norms, and supportive feedback, which lowers strain and burnout (Bakker et al., 2023). Related evidence on worker empowerment and technological change shows that autonomy and participatory management amplify the benefits of new tools while mitigating adverse effects on well being (Makridis and Han, 2021). These new regularities on AI adoption are also consistent with an older literature in economics, which demonstrates that returns to digital technologies are largest when paired with high involvement practices, performance oriented incentives, and decentralized decision rights (Bresnahan et al., 2002; Aral et al., 2012; Bloom et al., 2012). The findings suggest that managerial trust is not incidental to AI integration but part of the complementary practice bundle that turns adoption into improved engagement, lower burnout, and higher satisfaction.

Table 4 probes heterogeneity by gender, tenure, and age using person and year fixed effects. The main association between workplace trust and engagement is stable across groups, ranging from 0.399 to 0.521. The main effects of using genAI often are small and not statistically different from zero in any subgroup. The trust complementarity is concentrated among women and younger

workers: the coefficient on often × trust is 0.097 (s.e.=0.048) for females and 0.091 (0.041) for workers under 45, while it is small and imprecise for males, 0.037 (0.039), and essentially zero for workers 45 and older, 0.006 (0.044). By tenure, the interaction is positive and statistically significant for both groups but somewhat larger for shorter tenure employees, 0.100 (0.066) for tenure under six years and 0.082 (0.048) for tenure over six years. Occasional use shows a different pattern: the main effect of sometimes is negative for females, -0.113 (0.040), for shorter tenure workers, -0.118 (0.052), and for workers under 45, -0.082 (0.039), and its interaction with trust is small across all splits. These results suggest that frequent adoption yields higher engagement primarily where trust is strong and especially among women and younger employees, whereas occasional use without strong trust correlates with lower engagement in several groups. Given the smaller subgroup samples, these estimates should nonetheless be interpreted with caution.

Table 5 examines a candidate mechanism by linking management to employees' perceived productivity gains from genAI. In pooled cross sections, frequent users report substantially higher perceived AI productivity: 0.945 s.d. (s.e.=0.187) for the z score outcome and 0.224 (s.e.=0.027) for the "5/5" indicator in cols. 1 and 4. Introducing person fixed effects and year controls attenuates these main effects toward zero in cols. 2–3 and 5-6, consistent with selection into frequent use. By contrast, interactions with workplace trust are large and stable for frequent users. For the z-score outcome, the "often" × trust coefficient equals 0.330 (0.175) in the pooled model and remains sizable with person fixed effects, 0.598 (0.261) and 0.560 (0.256) in cols. 2–3. For the "5/5" indicator, the corresponding interactions are 0.099 (0.022), 0.383 (0.124), and 0.316 (0.133) in cols. 4-6. Interactions for "sometimes" users are smaller and not robust, reaching significance only in the lighter control binary models, 0.035 (0.017) and 0.289 (0.121) in cols. 4-5.

The main trust coefficient is near zero in the pooled z-score model and becomes negative once

fixed effects are introduced (-0.362 and -0.383 in cols. 2-3; -0.331 and -0.266 in cols. 5-6 for the binary outcome). Interpreted together, the results imply that trust operates primarily by amplifying perceived gains among adopters rather than raising optimism uniformly: in the FE binary models, a one s.d. increase in trust is associated with roughly 3 to 4 percentage points higher probability that frequent users report a "5/5" impact (-0.331 + 0.383 in col. 5; -0.266 + 0.316 in col. 6), with little corresponding effect for nonusers.

Figure 7 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

The 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). My 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), clarify handoffs, and reallocate time savings toward higher-value activities. Performance gains from technology 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).[9]

6.3 Limitations

Three 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 over 30,000 employees, I document how and where AI use has increased: the share using AI often rose from 9% to 24%, and the share using sometimes increased from 10% to 23%. Adoption is comparable across sectors, with private employers slightly ahead of federal and state government, and it follows the organizational hierarchy, with senior leaders using most frequently, supervisors next, and project managers and

[9]Table A.7 in the Online Appendix shows that the genAI exposure indices from Eloundou et al. (2024) predict the AI utilization in this sample, conditional on controls.

individual contributors close behind. Uptake is also broad across the income distribution. Then, I exploit longitudinal variation to quantify how managers shape organizational transmission of AI. Within-person estimates show that changes in managerial practices, particularly meaningful feedback and trust in leadership, move with employee engagement and openness to AI.

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

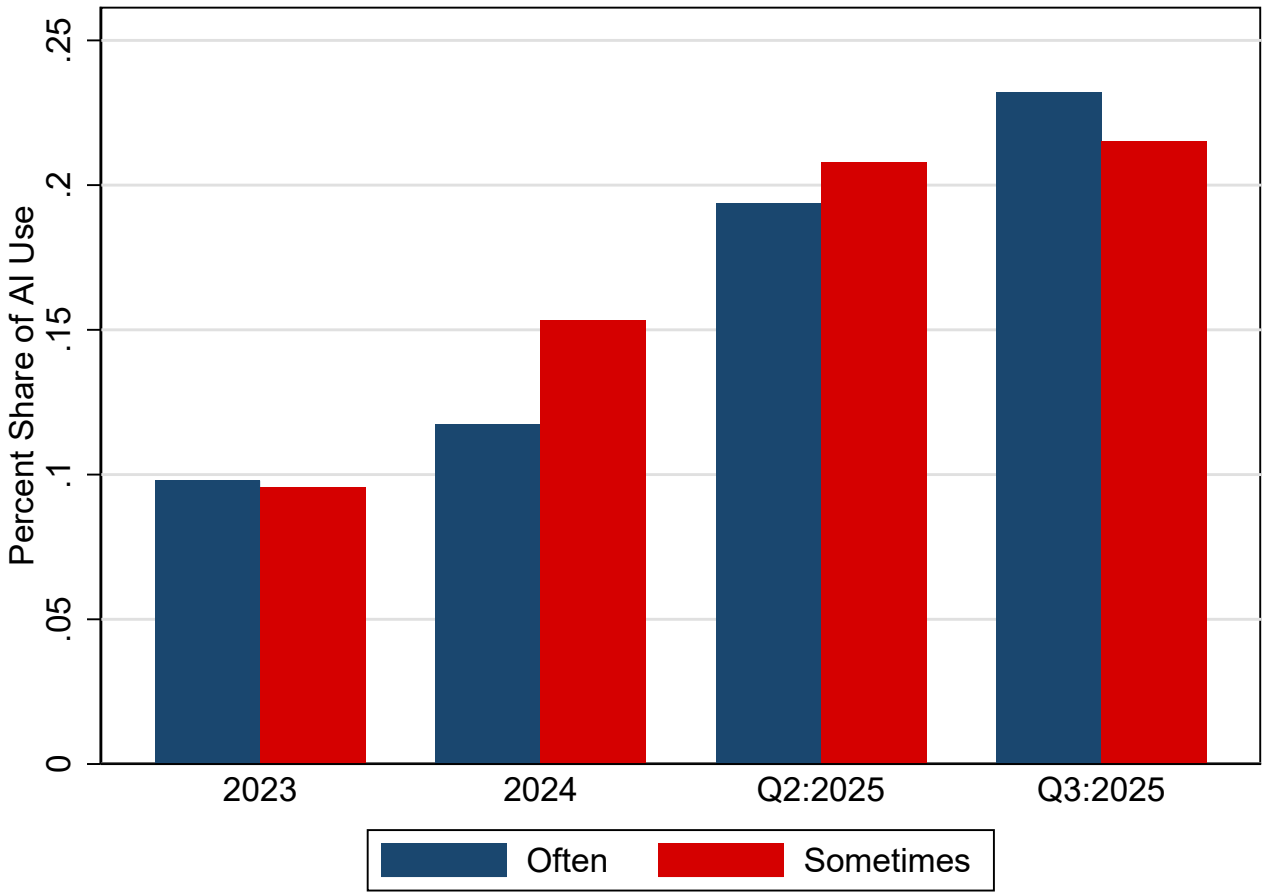


Figure 1: Time Series Adoption of AI, 2023-2025

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. I 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). Before asking this question, respondents are given a definition of AI: "Artificial intelligence is when a computer does or enhances a task that is normally performed by a person." 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	0.11	0.32	0.24	0.43
AI Use - Sometimes	0.10	0.30	0.18	0.38	0.23	0.42
AI Use - Never	0.81	0.39	0.71	0.45	0.53	0.50
AI Will Displace Job	0.02	0.15	0.02	0.15	0.02	0.15
Hours Worked/Week	39.3	12.4	38.8	12.2	38.9	11.8
Age	49.3	14.0	48.6	14.1	48.7	13.9
Male	0.53	0.50	0.53	0.50	0.51	0.50
White	0.76	0.43	0.73	0.44	0.71	0.45
Black	0.02	0.15	0.02	0.15	0.02	0.12
Full-time	0.83	0.37	0.82	0.38	0.82	0.38
Part-time	0.17	0.37	0.18	0.38	0.18	0.38
Has Children	0.30	0.46	0.30	0.46	0.31	0.46
Married	0.64	0.48	0.61	0.49	0.60	0.49
Less than HS	.	.	0.08	0.28	0.08	0.26
Some College	.	.	0.04	0.19	0.03	0.16
College or More	.	.	0.22	0.42	0.22	0.42
Observations	9329		9982		30793	

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)
C: Well-being	.018***						-.009
	[.003]						[.007]
C: Connected		.023***					.012*
		[.003]					[.006]
C: Feedback			.032***				.021***
			[.004]				[.005]
C: Customers				.008**			-.008
				[.003]			[.006]
C: Trust					.020***		.014*
					[.003]		[.007]
C: Respect						.023***	.011*
						[.004]	[.006]
Age	-.003***	-.003***	-.003***	-.003***	-.003***	-.003***	-.003***
	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]
Male	.017**	.017**	.012	.015**	.018***	.015**	.008
	[.007]	[.007]	[.008]	[.007]	[.007]	[.007]	[.009]
White	-.050***	-.049***	-.056***	-.051***	-.051***	-.058***	-.068***
	[.008]	[.008]	[.009]	[.008]	[.008]	[.008]	[.010]
Black	-.026	-.027	-.030	-.033	-.031	-.026	-.044
	[.020]	[.020]	[.027]	[.020]	[.019]	[.026]	[.032]
Full time	.080***	.080***	.089***	.080***	.082***	.098***	.100***
	[.009]	[.009]	[.009]	[.009]	[.009]	[.009]	[.011]
Has Children	.019**	.018**	.017**	.018**	.019**	.018**	.016*
	[.008]	[.008]	[.009]	[.008]	[.008]	[.008]	[.010]
Is Married	.023***	.024***	.035***	.027***	.024***	.032***	.035***
	[.007]	[.007]	[.008]	[.007]	[.007]	[.008]	[.009]
Year = 2024	.014	.013	-.103***	.014	.013		
	[.009]	[.009]	[.008]	[.010]	[.009]		
Year = 2025	.122***	.123***		.122***	.123***	.104***	
	[.008]	[.008]		[.008]	[.008]	[.008]	
R-squared	.05	.05	.04	.05	.05	.04	.04
Sample Size	38336	37964	27912	36761	38438	30357	21992
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, 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. =	Employee Engagement (Q12)			Burnout			Job Satisfaction		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Workplace Trust	.679***	.459***	.448***	-.402***	-.277***	-.275***	.177***	.142***	.138***
	[.009]	[.018]	[.018]	[.012]	[.022]	[.022]	[.006]	[.010]	[.011]
AI Use - Often	.100***	.019	.047	.105***	-.022	.013	-.018	.011	.021
	[.018]	[.034]	[.031]	[.024]	[.048]	[.037]	[.015]	[.018]	[.018]
× Workplace Trust	-.031	.062**	.058**	.009	-.028	-.049	.023*	.028*	.030*
	[.020]	[.029]	[.027]	[.026]	[.037]	[.033]	[.012]	[.016]	[.017]
AI Use - Sometimes	.061***	-.043*	-.036	.024	-.032	-.028	-.035	-.027	-.027
	[.016]	[.026]	[.025]	[.021]	[.036]	[.032]	[.027]	[.045]	[.048]
× Workplace Trust	-.068***	.010	.021	.036	.010	-.012	-.003	-.018	-.017
	[.018]	[.024]	[.024]	[.022]	[.029]	[.028]	[.022]	[.028]	[.029]
R-squared	.43	.85	.85	.20	.81	.82	.03	.50	.50
Sample Size	38430	21267	19885	32118	16152	15182	38350	21192	19819
Demographics	Yes	No	No	Yes	No	No	Yes	No	No
Person FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Time FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Income x Time 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 a a z-score for average Q12 employee engagement scores, 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. =	Employee Engagement (Q12)					
	(1)	(2)	(3)	(4)	(5)	(6)
Workplace Trust	.462***	.449***	.521***	.399***	.456***	.450***
	[.027]	[.024]	[.034]	[.033]	[.026]	[.030]
AI Use - Often	.004	.057	.039	-.022	.019	.055
	[.045]	[.053]	[.082]	[.058]	[.052]	[.045]
× Workplace Trust	.037	.097**	.100	.082*	.091**	.006
	[.039]	[.048]	[.066]	[.048]	[.041]	[.044]
AI Use - Sometimes	.019	-.113***	-.118**	.056	-.082**	.014
	[.032]	[.040]	[.052]	[.040]	[.039]	[.034]
× Workplace Trust	-.021	.056	.042	-.018	-.003	.056
	[.033]	[.035]	[.045]	[.038]	[.035]	[.035]
R-squared	.86	.83	.82	.89	.82	.87
Sample Size	11310	9850	4759	5726	8288	9909
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	-.047	-.362	-.383*	-.017	-.331***	-.266**
	[.169]	[.220]	[.225]	[.013]	[.116]	[.125]
AI Use - Often	.945***	.071	.214	.224***	-.015	.022
	[.187]	[.401]	[.387]	[.027]	[.182]	[.195]
× Workplace Trust	.330*	.598**	.560**	.099***	.383***	.316**
	[.175]	[.261]	[.256]	[.022]	[.124]	[.133]
AI Use - Sometimes	.387**	-.067	.167	.023	-.063	-.036
	[.184]	[.380]	[.316]	[.022]	[.171]	[.185]
× Workplace Trust	.235	.383	.222	.035**	.289**	.179
	[.173]	[.364]	[.254]	[.017]	[.121]	[.132]
R-squared	.16	.73	.78	.12	.77	.77
Sample Size	3383	382	344	3383	382	344
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.

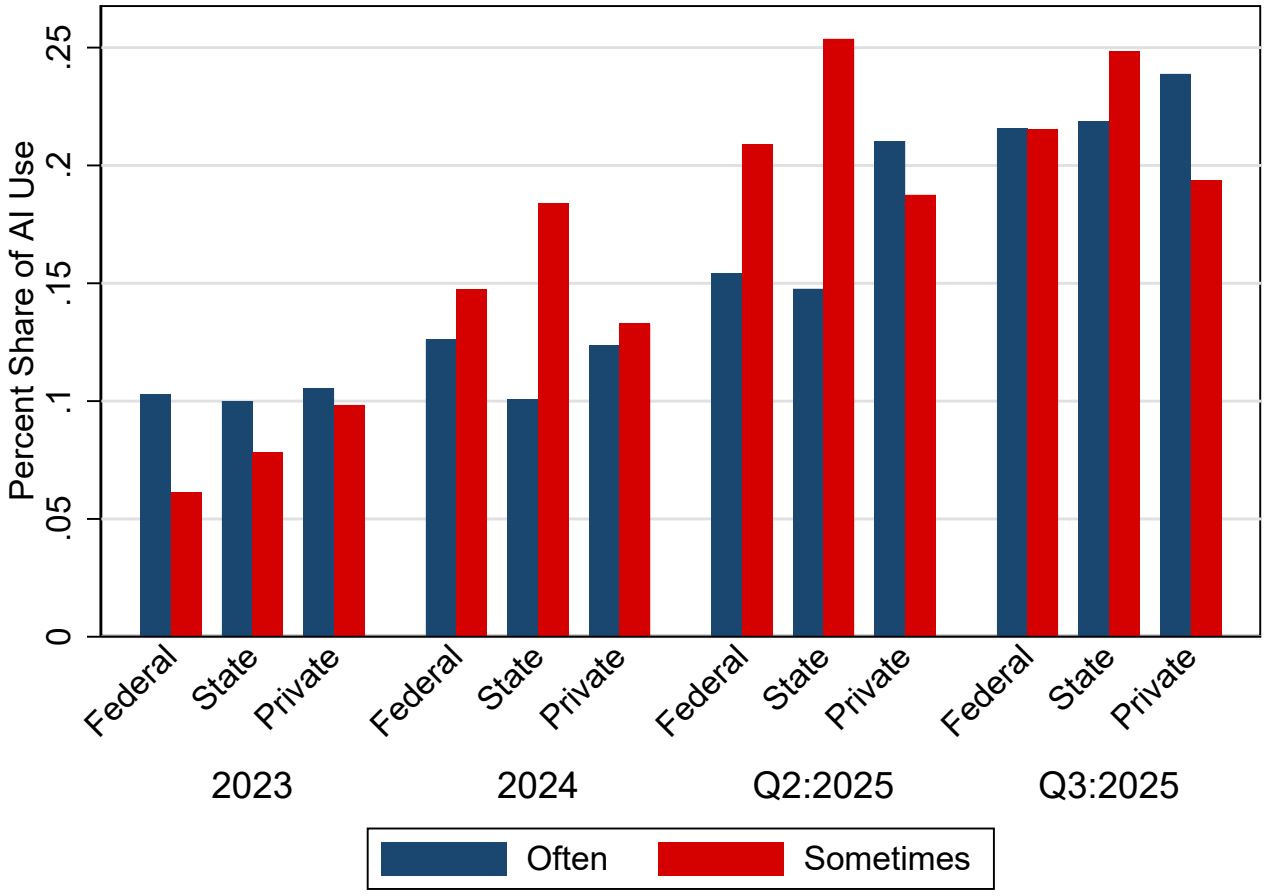


Figure 2: AI Adoption Across Public and Private Sectors, 2023-2025

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. I 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). Before asking this question, respondents are given a definition of AI: "Artificial intelligence is when a computer does or enhances a task that is normally performed by a person." The sample is restricted to full and part time workers, and the observations are weighted.

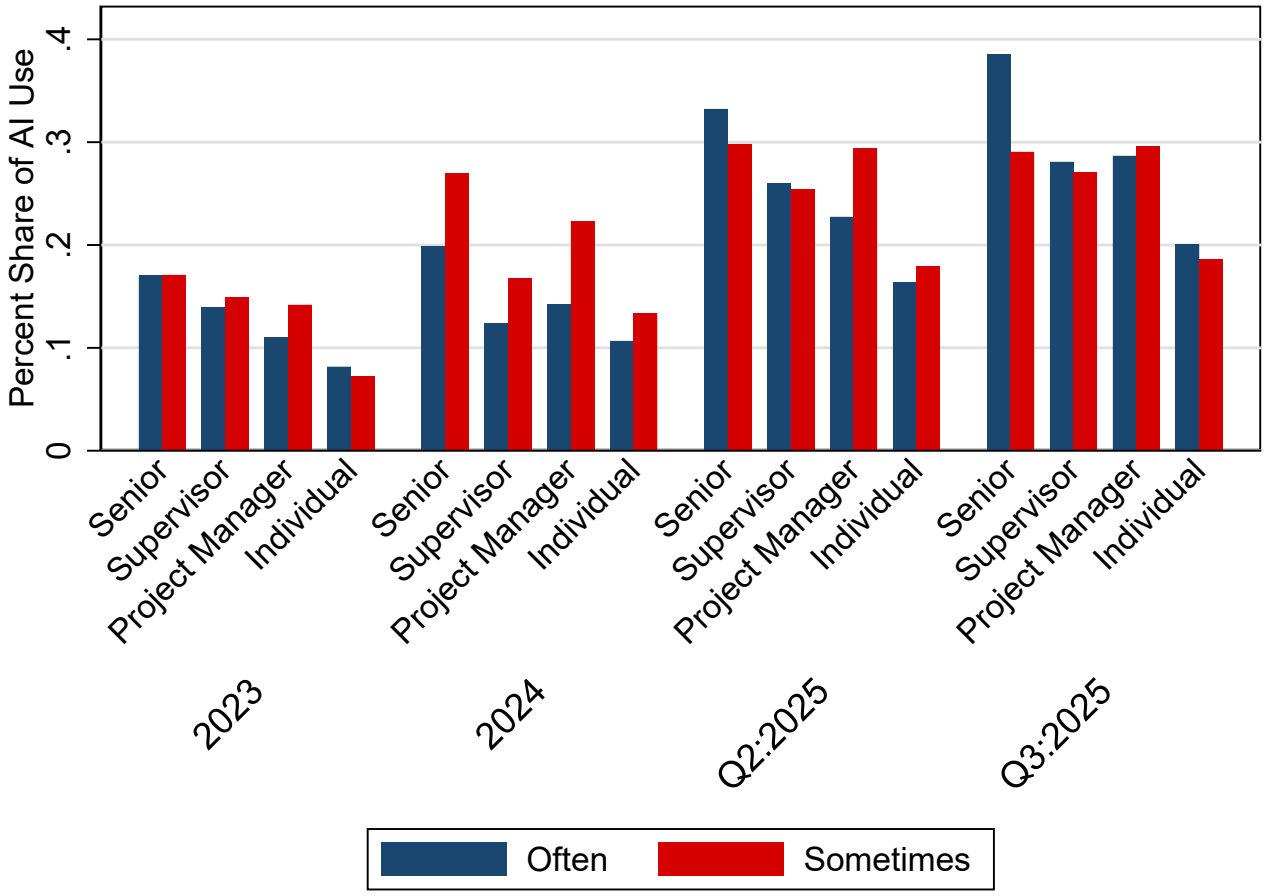


Figure 3: AI Adoption Across Employee Hierarchical Structure, 2023-2025

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. I 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). Before asking this question, respondents are given a definition of AI: "Artificial intelligence is when a computer does or enhances a task that is normally performed by a person." 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.

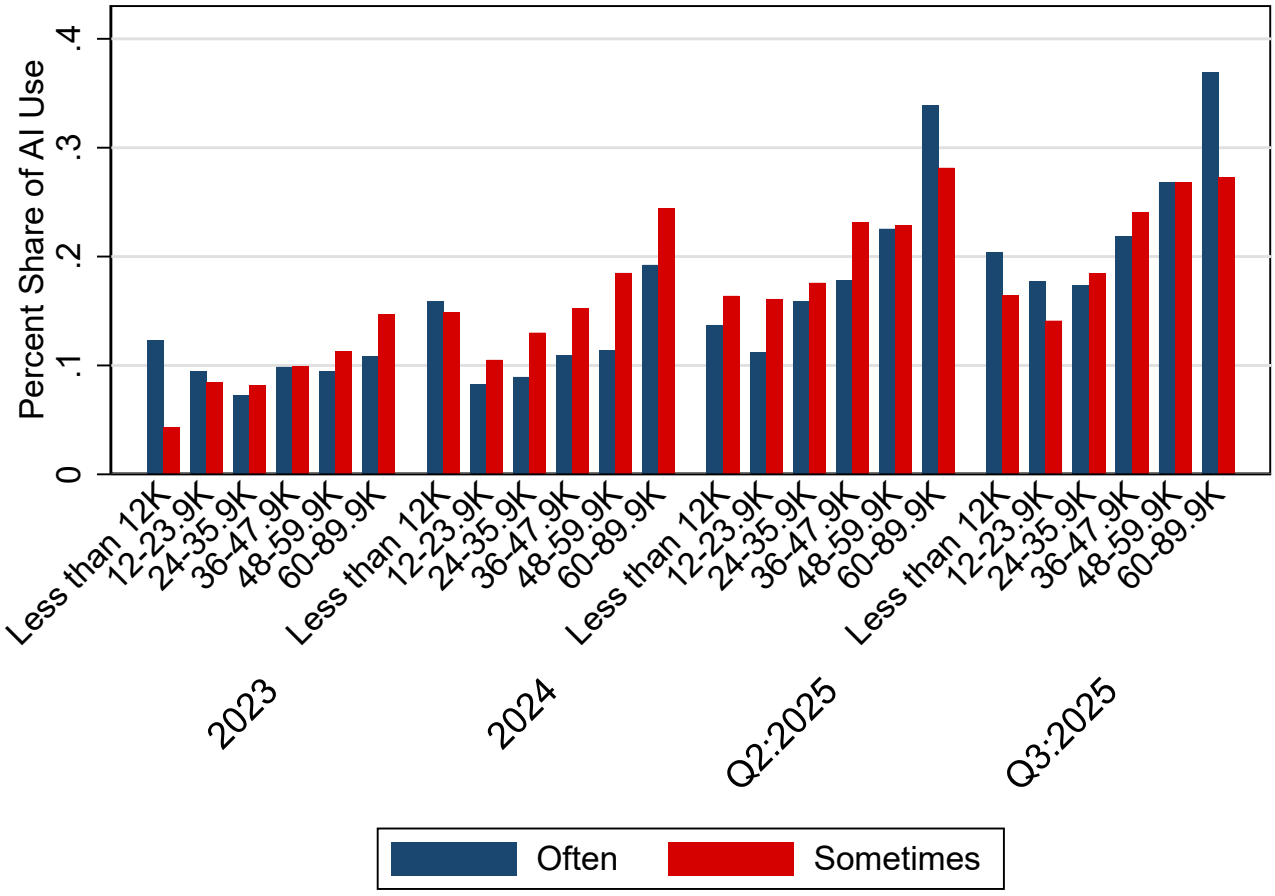


Figure 4: AI Adoption Across Income Groups, 2023-2025

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. I 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). Before asking this question, respondents are given a definition of AI: "Artificial intelligence is when a computer does or enhances a task that is normally performed by a person." The sample is restricted to full and part time workers, and the observations are weighted.

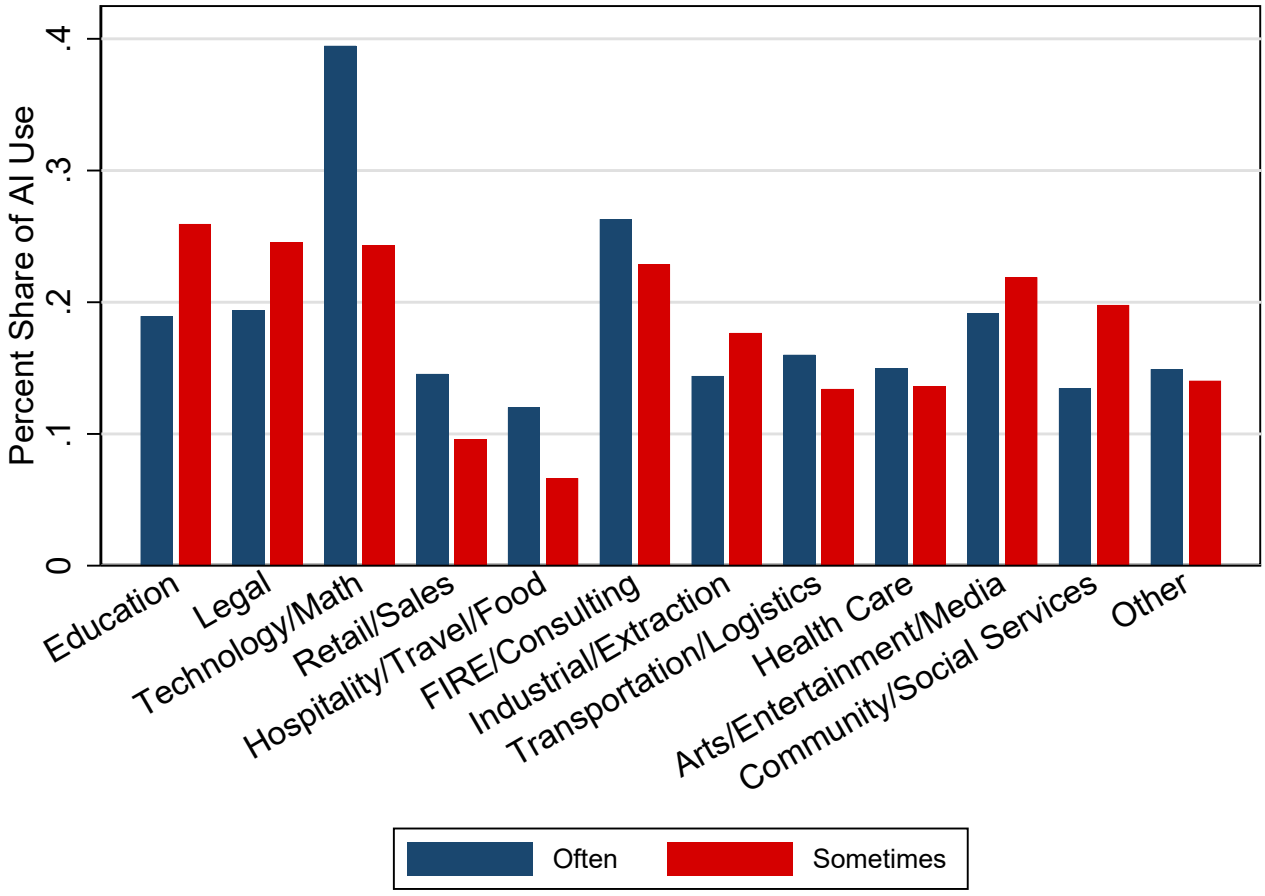


Figure 5: Cross-sectional Variation Across Industries, 2023-2025

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. I 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), separately by two-digit industry. Before asking this question, respondents are given a definition of AI: "Artificial intelligence is when a computer does or enhances a task that is normally performed by a person." The sample is restricted to full and part time workers, and the observations are weighted.

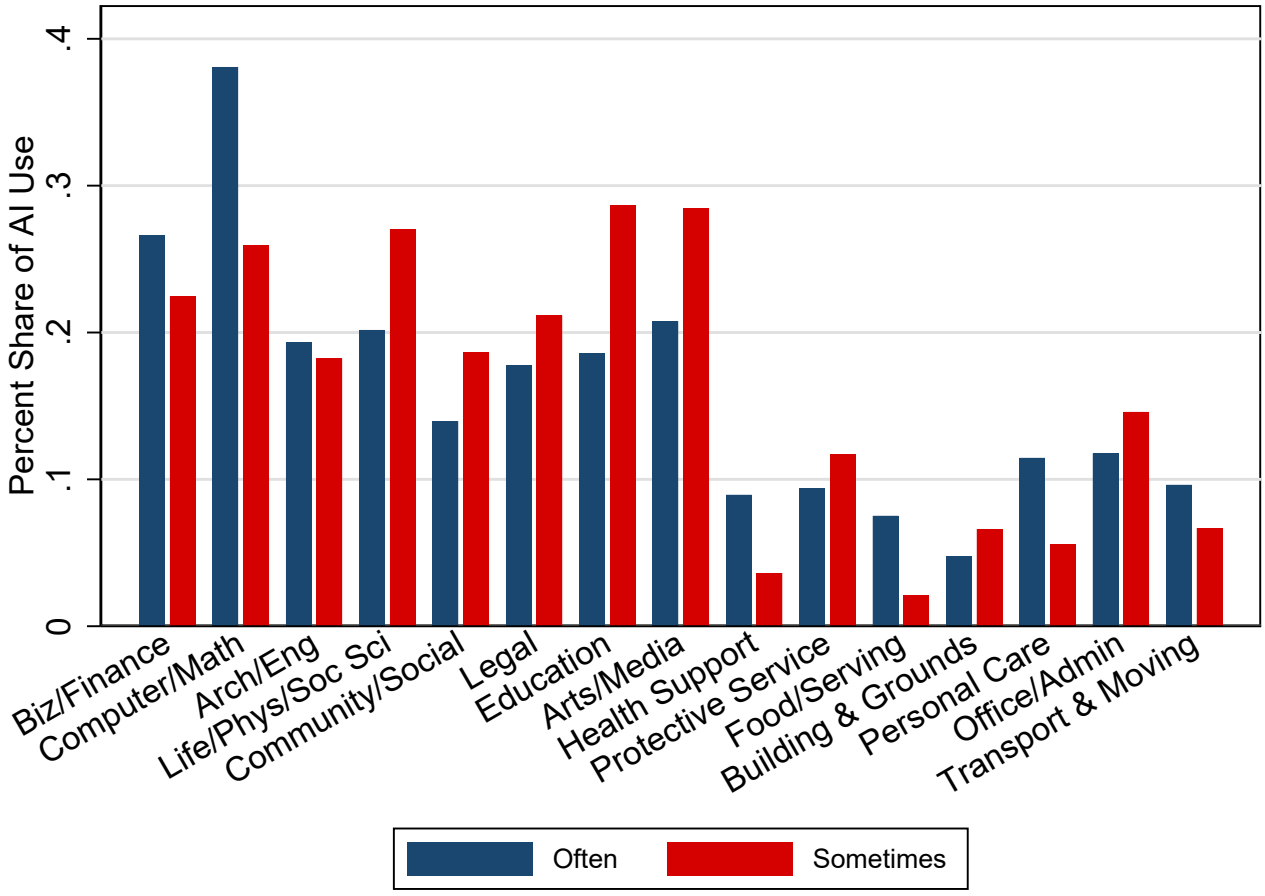


Figure 6: Cross-sectional Variation Across Occupations, 2023-2025

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. I 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), separately by two-digit occupation. Before asking this question, respondents are given a definition of AI: "Artificial intelligence is when a computer does or enhances a task that is normally performed by a person." The sample is restricted to full and part time workers, and the observations are weighted.

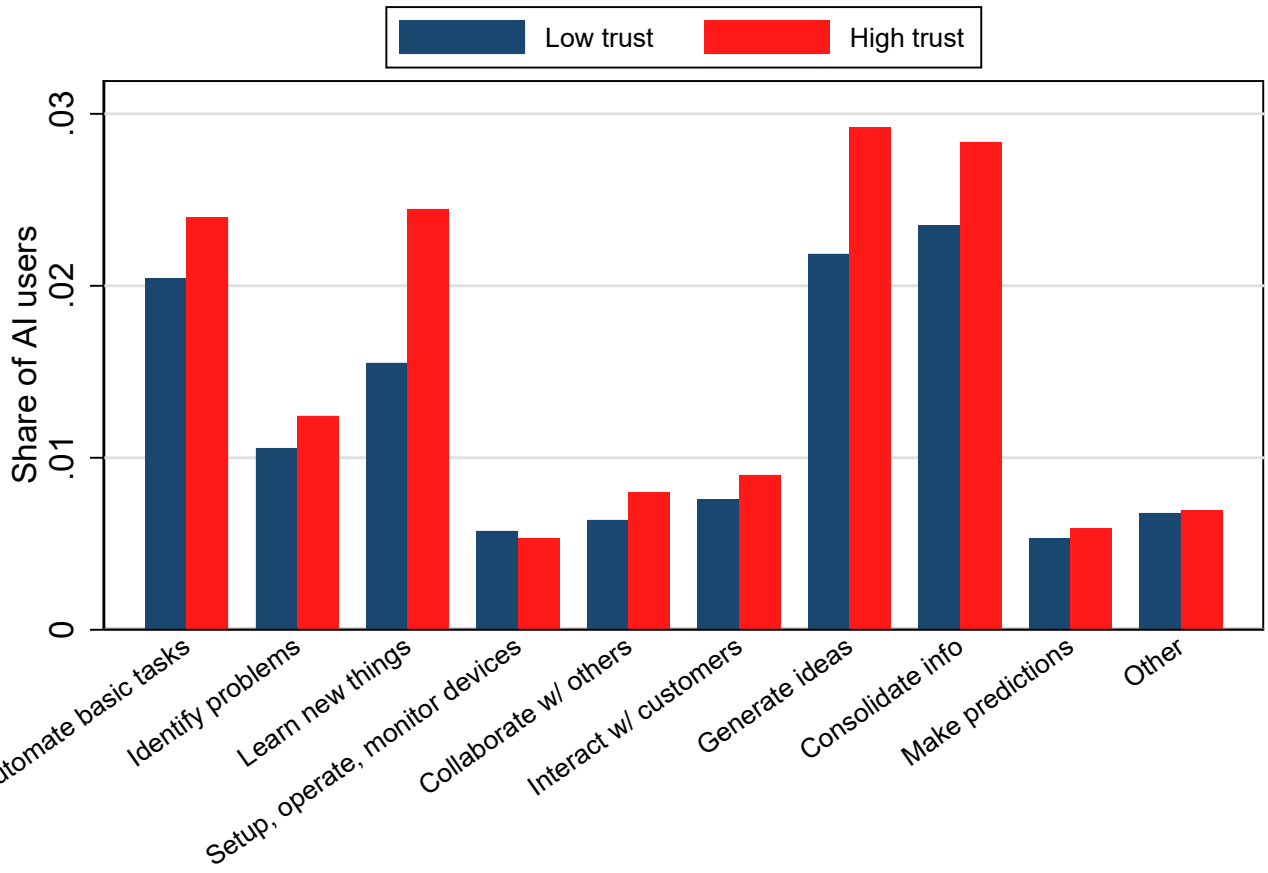


Figure 7: Composition of AI Use-cases by Employees, 2024-2025

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

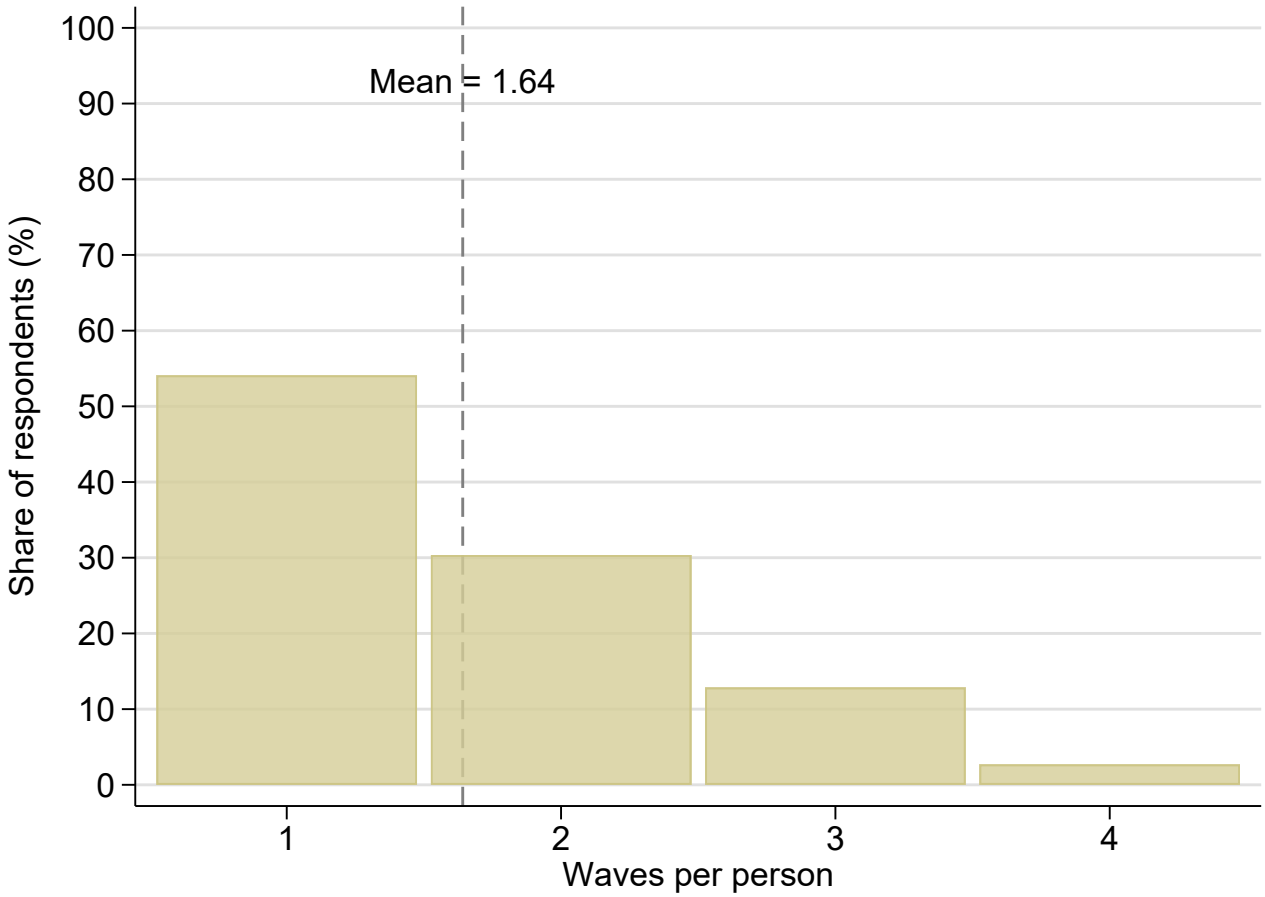


Figure A.1: Descriptive Evidence on Longitudinal Variation

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	30525	.
Persons observed in $\geq$2 waves	14012	.
Ever switchers among $\geq$2 waves	5379	38.39
Valid adjacent-wave transitions	19579	.
Adoptions: Never $\rightarrow$ (Sometimes/Often)	3461	17.68
Cessations: (Sometimes/Often) $\rightarrow$ Never	1150	5.87

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	73.69	17.01	9.31
Sometimes	21.97	48.72	29.31
Often	13.11	19.21	67.68

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)
C: Well-being	.011***						-.009
	[.004]						[.007]
C: Connected		.017***					.012*
		[.005]					[.006]
C: Feedback			.031***				.021***
			[.005]				[.005]
C: Customers				.004			-.008
				[.005]			[.006]
C: Trust					.014***		.014*
					[.005]		[.007]
C: Respect						.024***	.011*
						[.006]	[.006]
Age	-.003***	-.003***	-.002***	-.003***	-.003***	-.003***	-.003***
	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]
Male	.017*	.018*	.010	.016	.018*	.014	.008
	[.010]	[.010]	[.011]	[.010]	[.010]	[.011]	[.009]
White	-.047***	-.047***	-.073***	-.049***	-.049***	-.069***	-.068***
	[.013]	[.013]	[.014]	[.014]	[.013]	[.014]	[.010]
Black	-.020	-.024	-.047	-.024	-.026	-.033	-.044
	[.023]	[.024]	[.039]	[.024]	[.023]	[.037]	[.032]
Full time	.056***	.054***	.077***	.055***	.057***	.089***	.100***
	[.013]	[.013]	[.014]	[.014]	[.013]	[.012]	[.011]
Has Children	.022*	.021*	.012	.023*	.022*	.011	.016*
	[.011]	[.012]	[.013]	[.012]	[.011]	[.012]	[.010]
Is Married	.001	.000	.025**	.002	.002	.023*	.035***
	[.010]	[.010]	[.012]	[.011]	[.010]	[.012]	[.009]
Year = 2024	.014	.013	-.071***	.014	.013		
	[.010]	[.010]	[.011]	[.010]	[.010]		
Year = 2025	.102***	.107***		.102***	.102***	.069***	
	[.011]	[.012]		[.012]	[.011]	[.010]	
R-squared	.04	.05	.05	.04	.04	.05	.04
Sample Size	16663	16509	8262	15953	16715	8827	21992
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: Workplace Determinants of AI Utilization (With Displacement Risk)

Dep. var. =	Use AI Often (1/0)						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
AI Will Displace Job	.105***	.102***	.177***	.099***	.100***	.172***	
	[.031]	[.031]	[.046]	[.031]	[.030]	[.045]	
C: Well-being	.011***						-.009
	[.004]						[.007]
C: Connected		.017***					.012*
		[.005]					[.006]
C: Feedback			.031***				.021***
			[.005]				[.005]
C: Customers				.004			-.008
				[.005]			[.006]
C: Trust					.014***		.014*
					[.005]		[.007]
C: Respect						.024***	.011*
						[.006]	[.006]
Age	-.003***	-.003***	-.002***	-.003***	-.003***	-.003***	-.003***
	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]	[.000]
Male	.017*	.018*	.010	.016	.018*	.014	.008
	[.010]	[.010]	[.011]	[.010]	[.010]	[.011]	[.009]
White	-.047***	-.047***	-.073***	-.049***	-.049***	-.069***	-.068***
	[.013]	[.013]	[.014]	[.014]	[.013]	[.014]	[.010]
Black	-.020	-.024	-.047	-.024	-.026	-.033	-.044
	[.023]	[.024]	[.039]	[.024]	[.023]	[.037]	[.032]
Full time	.056***	.054***	.077***	.055***	.057***	.089***	.100***
	[.013]	[.013]	[.014]	[.014]	[.013]	[.012]	[.011]
Has Children	.022*	.021*	.012	.023*	.022*	.011	.016*
	[.011]	[.012]	[.013]	[.012]	[.011]	[.012]	[.010]
Is Married	.001	.000	.025**	.002	.002	.023*	.035***
	[.010]	[.010]	[.012]	[.011]	[.010]	[.012]	[.009]
Year = 2024	.014	.013	-.071***	.014	.013		
	[.010]	[.010]	[.011]	[.010]	[.010]		
Year = 2025	.102***	.107***		.102***	.102***	.069***	
	[.011]	[.012]		[.012]	[.011]	[.010]	
R-squared	.04	.05	.05	.04	.04	.05	.04
Sample Size	16663	16509	8262	15953	16715	8827	21992
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. The wording for the replacement of jobs question is: "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?" 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.5: 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	.262***	.242***	.338***	.366***	.400***	.352***	.428***	.381***	.329***	.069*	.338***	.465***
	[.022]	[.047]	[.020]	[.046]	[.039]	[.021]	[.020]	[.049]	[.041]	[.041]	[.040]	[.044]
AI Use - Often	-.023	.026	.002	.007	-.017	.035	.072**	-.005	-.097	.037	.080	-.038
	[.044]	[.073]	[.036]	[.071]	[.057]	[.036]	[.035]	[.076]	[.075]	[.058]	[.071]	[.076]
× Workplace Trust	.098***	.058	.053*	.068	.041	.036	.015	.112*	.072	-.020	-.012	.000
	[.036]	[.076]	[.032]	[.061]	[.060]	[.030]	[.035]	[.064]	[.109]	[.048]	[.057]	[.057]
AI Use - Sometimes	-.046	-.091	-.051*	-.070	-.050	-.016	-.018	-.108*	-.141**	-.018	-.018	-.030
	[.037]	[.068]	[.028]	[.064]	[.064]	[.030]	[.029]	[.058]	[.066]	[.045]	[.057]	[.054]
× Workplace Trust	.070**	.058	.037	.089	.037	-.002	-.016	.087	.083	.060	-.070	-.034
	[.032]	[.084]	[.026]	[.071]	[.056]	[.028]	[.027]	[.059]	[.053]	[.050]	[.051]	[.051]
R-squared	.77	.78	.79	.77	.82	.80	.82	.82	.81	.83	.81	.82
Sample Size	21160	5796	21089	5284	5610	20003	20792	5694	5713	5180	5194	5449
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.

References

Aral, S., Brynjolfsson, E., and Wu, L. (2012). Three-way complementarities: Performance pay, human resource analytics, and information technology. *Management Science*, 58(5):913–931.

Bakker, A. B., Demerouti, E., and Sanz-Vergel, A. I. (2023). Job demands–resources theory: Ten years later. *Annual Review of Organizational Psychology and Organizational Behavior*, 10:25–53.

Beck, R. and Harter, J. (2015). Managers account for 70% of variance in employee engagement. *Gallup*.

Bick, A., Blandin, A., and Deming, D. J. (2025). The rapid adoption of generative ai. NBER Working Paper 32966, National Bureau of Economic Research.

Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., and Roberts, J. (2013). Does management matter? evidence from india. *The Quarterly Journal of Economics*, 128(1):1–51.

Bloom, N., Sadun, R., and Van Reenen, J. (2012). Americans do it better: Us multinationals and the productivity miracle. *American Economic Review*, 102(1):167–201.

Bloom, N., Sadun, R., and Van Reenen, J. (2017). Management as a technology? Technical Report 16-133, Harvard Business School Working Paper.

Bloom, N. and Van Reenen, J. (2010). Why do management practices differ across firms and countries? *Journal of Economic Perspectives*, 24(1):203–224.

Bresnahan, T. F., Brynjolfsson, E., and Hitt, L. M. (2002). Information technology, workplace

Table A.6: Effects of AI Utilization and Workplace Trust on Employee Engagement (Exploiting Job Switcher Heterogeneity)

Dep. var. =	Q12 Avg		Burnout		Job Satisfaction	
	(1)	(2)	(3)	(4)	(5)	(6)
Workplace Trust	.455***	.524***	-.278***	-.338***	.143***	.188***
	[.018]	[.040]	[.022]	[.047]	[.010]	[.016]
AI Use - Often	.030	.064	-.020	-.178	.005	.031
	[.035]	[.103]	[.048]	[.142]	[.019]	[.023]
× Workplace Trust	.065**	.128	-.028	.032	.027	-.014
	[.030]	[.080]	[.037]	[.109]	[.016]	[.021]
AI Use - Sometimes	-.038	-.137**	-.031	.006	-.030	.002
	[.026]	[.067]	[.036]	[.089]	[.046]	[.019]
× Workplace Trust	.013	.084	.010	.055	-.018	.008
	[.024]	[.056]	[.029]	[.073]	[.028]	[.019]
R-squared	.85	.82	.81	.77	.50	.65
Sample Size	21267	3172	16152	2036	21192	3154
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.

Table A.7: Exposure to genAI and AI Utilization

Dep. var. =	AI Use - Often		AI Use - Sometimes	
	(1)	(2)	(3)	(4)
Displacement Exposure	.052***	.047***	.031***	.029***
	[.012]	[.010]	[.006]	[.006]
Augmentation Exposure	.015	-.000	.035***	.028***
	[.012]	[.011]	[.006]	[.006]
R-squared	.07	.10	.05	.06
Sample Size	13210	12681	13210	12681
Demographics	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes
Time x Income FE	No	Yes	No	Yes

Notes.—Sources: Eloundou et al. (2024) and 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 the displacement (beta) and augmentation-based exposure at a six-digit occupational level from Eloundou et al. (2024), and individual covariates and time (year and quarter when the survey switches quarterly in 2025) fixed effects. 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.

organization, and the demand for skilled labor: Firm-level evidence. *The Quarterly Journal of Economics*, 117(1):339–376.

Brynjolfsson, E., Li, D., and Raymond, L. R. (2025). Generative ai at work. *Quarterly Journal of Economics*, 140(2):889–942.

Brynjolfsson, E., Rock, D., and Syverson, C. (2021). The productivity j-curve: How intangibles complement general purpose technologies. *American Economic Journal: Macroeconomics*, 13(1):333–372.

Comin, D. and Hobijn, B. (2010). An exploration of technology diffusion. *American Economic Review*, 100(5):2031–2059.

Daly, S. J., Wiewiora, A., and Hearn, G. (2025). Shifting attitudes and trust in ai: Influences on organizational ai adoption. *Technological Forecasting and Social Change*, 215:124108.

Davenport, T. H. (2018). *The AI Advantage: How to Put the Artificial Intelligence Revolution to Work*. MIT Press, Cambridge, MA.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3):319–340.

Den Houter, K. (2024). Ai in the workplace: Answering 3 big questions. *Gallup*.

Edmondson, A. C. (2019). *The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth*. John Wiley & Sons, Hoboken, NJ.

Eloundou, T., Manning, S., Mishkin, P., and Rock, D. (2024). Gpts are gpts: An early look at the labor market impact potential of large language models. *Science*, 384(6702):1306–1308.

Howell, J. M. and Higgins, C. A. (1990). Champions of technological innovation. *Administrative Science Quarterly*, 35(2):317–341.

Johnston, A. and Makridis, C. A. (2025). The labor market effects of generative ai: A difference-in-differences analysis of ai exposure. *SSRN working paper*.

Lee, D. and Makridis, C. A. (2023). A task-interdependency model of complex collaborative work for advancing human-centered crowd work. SSRN Scholarly Paper ID 4481185. Last revised: 17 Oct 2024.

Makridis, C. A. and Han, J. H. (2021). Future of work and employee empowerment and satisfaction: Evidence from a decade of technological change. *Technological Forecasting and Social Change*, 173:121162.

Makridis, C. A. and Schloetzer, J. (2025). How do different remote work arrangements impact employee job satisfaction and retention? *Management Science, R&R*.

McElheran, K., Li, J. F., Brynjolfsson, E., Kroff, Z., Dinlersoz, E., Foster, L., and Zolas, N. (2024). Ai adoption in america: Who, what, and where. *Journal of Economics & Management Strategy*, 33(2):375–415. Special Issue on Artificial Intelligence and the Business Revolution.

Morgan, D. E. and Zeffane, R. (2003). Employee involvement, organizational change and trust in management. *International Journal of Human Resource Management*, 14(1):55–75.

Noy, S. and Zhang, W. (2023). Experimental evidence on the productivity effects of generative artificial intelligence. *Science*, 381(6654):187–192.

Ray, J. (2024). Americans express real concerns about artificial intelligence. *Gallup*.

Rogers, E. M. (2003). *Diffusion of Innovations*. Free Press, New York, 5th edition.

Venkatesh, V., Morris, M. G., Davis, G. B., and Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3):425–478.