TECHNOLOGY WHITE PAPER / LABOR MARKETS, EDUCATION AND PUBLIC POLICY

Job Displacement and Broader Societal Impacts

What AI changes in work, what society expects, and who shares the gains

48PEGASUS Research / Co-authored by Jonathan G. Browning, Founder & CEO of 48PEGASUS

November 19, 2026

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NAVIGATION

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EXECUTIVE FINDINGS AND INTERPRETATION

Executive summary

FIELD NOTE

The signal is strongest where task exposure, adoption and changes in hiring or hours can be linked. A poll cannot establish job loss.

The public signal

Seventy-one percent of U.S. adults in Pew’s June 2026 survey said they expect AI to lead to fewer jobs in the United States over the next 20 years, up from 64% in the 2024 comparison. Adults aged 18–29 moved from 61% to 73%, the largest observed increase among the published age groups. In 2026, their view was broadly similar to adults aged 30–64. These are expectations, not forecasts of the labor force. [1]

The underlying economic evidence is mixed. Occupational exposure measures where technology may alter tasks. Payroll studies can detect changes in selected cohorts. Neither provides a national count of layoffs caused by AI. The risk is credible even without such a count: employers can reduce junior hiring or training long before net employment falls in a visible way. [2] [3]

What to do now

Preserve the entry ladder while redesigning tasks. Measure hiring, hours, wages, quality, worker exits, and advancement with adoption records where possible. Analyze both aggregate employment and outcomes by tenure and occupation; workers leaving a field can be hidden by sector growth elsewhere. As schools adopt AI, test what students can do independently, not only what they produce with access to a tool. [4] [9]

The policy question is who captures gains and who pays transition costs. Boards should compare productivity to compensation and monitored workload. Leaders should treat public concern as a signal to improve transparency and participation, not validate it as a measured economic impact. The report reviews public evidence dated through November 19, 2026 and offers decision tools, not a prediction of 2046 employment.

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EXECUTIVE FINDINGS AND INTERPRETATION

A taxonomy of labor market signals

FIELD NOTE

Do not interchange exposure, adoption, output or employment. They have different populations and meanings.

Four different measures

Exposure is a modeled overlap between capabilities and tasks. It can signal where to study transitions; it does not show firms use AI or people lose work. Adoption records whether businesses or workers say they use it under a specified definition. Occasional individual use differs from a workflow embedded in production. Productivity links output to inputs; measuring accepted work is better than counting generated items. Gains at one task do not necessarily survive review, integration or demand limits. [2] [7] [10]

Hiring, hours, separations, pay and net employment measure different labor changes. A smaller intake may limit future entry without reducing today’s stock of jobs. Longer hours or wage uncertainty can worsen job quality without a change in headcount.

What attribution would require

To establish causal displacement, ask what would have happened at the same firms without the adoption. Identify dates, compare credible control groups, test pre-adoption trends, and examine other explanations. Announced restructuring is useful for monitoring, but announced jobs do not necessarily correspond to workers actually laid off, or departures that would not otherwise have happened. [3]

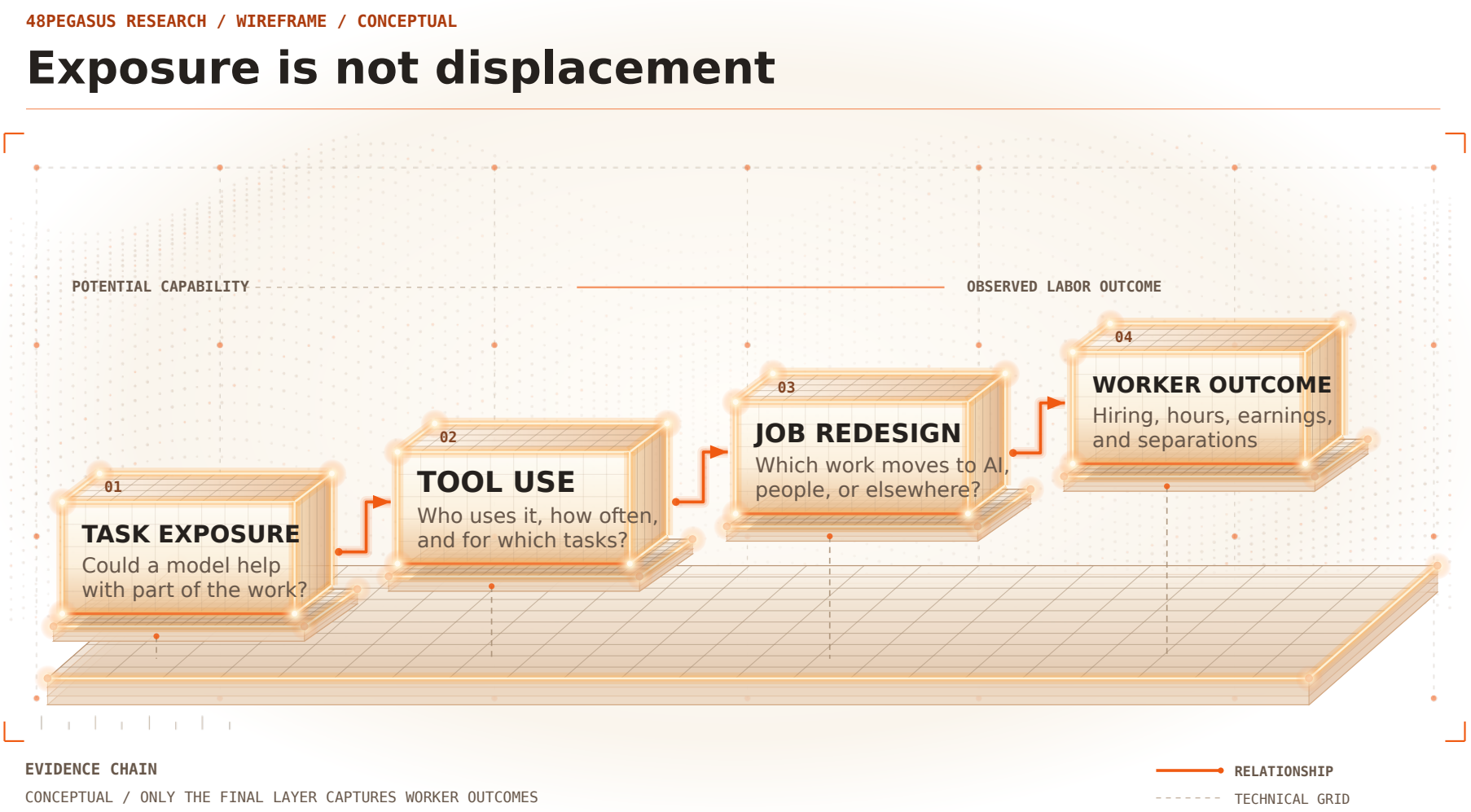
Compare like denominators. A population-wide expectation, a firm-level adoption percentage, an occupation’s exposure score and change in a payroll cohort cannot be averaged into a single risk rate. Include dates, geography, industry, baseline, unit and sample or coverage limits with every statistic. If a measure cannot discriminate among the proposed explanations, label it as a signal rather than causal confirmation.

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VISUAL EVIDENCE

Exhibit 01 Exposure is not displacement



An occupation can be exposed without widespread adoption, and adoption can change tasks without eliminating jobs. Identifying an effect on employment requires a defensible comparison, not simply a model-capability score.

48PEGASUS Research conceptual exhibit. Not empirical data.

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EXECUTIVE FINDINGS AND INTERPRETATION

Three mechanisms can act together

FIELD NOTE

Productive technology can substitute for tasks, generate demand, and create new work at the same time.

Substitution and support

A writing assistant might reduce basic drafting time, a human may instead spend more time on review, and the output may be good enough for more teams to offer the service. The net employment effect depends on whether additional demand, oversight and new work offset reduced labor per unit. A company can keep headcount flat while changing who performs the remaining work and who gets a first job. [2] [10]

An organization learns more by measuring actual throughput, defect rates, time spent supervising, and the number of independently completed assignments than by multiplying several vendor claims about minutes saved. Include tasks moved to customers or contractors and time spent repairing mistakes.

Scale and feedback

A higher-quality or lower-priced service may attract new demand; existing demand may also be capped by budgets, customer preferences or regulation. Licensed oversight can preserve roles in some work; a product redesign can shift demand to a different occupation, region or supplier. Any forecast therefore embeds assumptions about adoption, labor reallocation, demand, institutions and technology.

Track what is likely to be reversible. Training a worker to review a tool is easier to reverse than dismantling an apprenticeship pipeline. Running a pilot in one channel has lower exposure than making a permanent hiring cut based on assumed utilization. Stage changes so the team can detect unintended outcomes and compare them to the relevant baseline. [3] [14]

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EXECUTIVE FINDINGS AND INTERPRETATION

Why the first job matters

FIELD NOTE

An entry vacancy delivers both current production and a chance to develop judgment.

Separate stocks and flows

An organization’s headcount is a stock. New openings, applications, hires, transfers, separations and promotions are flows. When organizations cease routine hiring without layoffs, headcount may decline only slowly as people leave. Measures of recent graduate unemployment, underemployment and specific occupation-by-age payrolls capture different parts of that transition. They should be read side by side without treating them as equivalent. [4] [3]

Entry-level opportunities matter for skill accumulation. Routine tasks often provide practice in spotting exceptions, identifying quality and handling feedback from more experienced staff. Automating these tasks may be beneficial if alternative practice develops the same skills, but a better first-pass output is not evidence that novices learned more.

Diagnose before changing headcount

Ask which tasks previously justified junior hiring, how much senior oversight is needed, what skills a novice is expected to master, and how many people advance per cohort. Determine whether a comparable group was affected by a hiring freeze, industry demand changes or an outsourcing decision. Compare duration in training and progression after adoption.

Protect some authentic tasks that increase in complexity, with human feedback and a standard for working without AI. Reinvest a portion of saved time into coaching and paid supervised practice. Compare demonstrated competence, internal transfers and retention after a reasonable follow-up. The case for the program is stronger if it creates a credible internal pipeline, not merely a high completion rate. [12] [11]

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EXECUTIVE FINDINGS AND INTERPRETATION

How the paper weighs evidence

FIELD NOTE

First establish the denominator and the design, then assess what inference it supports.

Primary records

Survey producers support statements about respondent views when wording, sample, field dates and results are available. Official releases support estimates of their stated labor or firm variables, subject to revision. Research trials can support context-specific causal conclusions when assignment and measurement are credible; observational studies identify associations whose interpretation depends on comparison methods. Policy records distinguish a submitted proposal, adopted rule, implementation and measured effects.

The report uses selected public sources through November 19, 2026. It is not a census, replication study or forecast. Dated exhibit captions describe whether a reading is measured, modeled, self-reported or illustrative.

Comparative practice

When a survey uses age groups and another uses generations, do not transfer a ranking without checking cohort definitions and question wording. When a paper revises results, retain the study vintage rather than splicing updates into a synthetic time series. Keep high-income ILO exposure estimates separate from U.S. payroll statistics. Do not combine estimates from unlike denominators into an employment-loss probability. [1] [2] [4]

The examples present possible program designs, not measured success. For consequential decisions re-check the primary figures and learn whether the source’s assumptions, occupation crosswalk, sample or reporting schedule has changed. Identify what evidence would change each decision before interpreting the next release.

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EXECUTIVE FINDINGS AND INTERPRETATION

A map of societal effects beyond headcount

FIELD NOTE

Time, quality, access and bargaining power can change even when employment counts do not.

Worker and household outcomes

An AI tool can reduce repetitive work and make some jobs accessible to people who benefit from translation, speech or alternative interfaces. The same deployment can raise performance quotas, change scheduling, or reduce worker discretion. Quality of employment includes pay, benefits, predictable hours, autonomy, privacy and opportunity for advancement, not merely payroll status.

Families may also face a gap between salary expectations and entry opportunities. Where local employers use different technology or training standards, the burden of adjustment can depend on geography, mobility, household obligations and access to affordable learning. Measure who reaches the new jobs, not only whether they exist. [3]

Education, institutions and trust

Schools must decide whether AI is a supported aid, a supervised tool or excluded for a particular assignment. A tool can give effective practice while weakening later performance when used to bypass the learning step. Evaluate independent competence and accessible alternatives. Public trust also depends on whether workers and students can challenge consequential decisions. [9] [8] [14]

Competitive structure matters because firms may lack effective choices about AI suppliers or share savings unevenly. Productive gains can accrue to consumers through lower prices and reliable service, employees through pay and useful time, or owners and providers through higher margins. The allocation is empirical and institutional, not guaranteed by efficiency.

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EXECUTIVE FINDINGS AND INTERPRETATION

Read the report as a decision sequence

FIELD NOTE

Start with the executive findings, then follow the evidence stream that matches your decision.

For decision-makers

Public officials should start with the survey and political chapter, then compare it with the occupation, hiring and hours evidence. The concentration chapter separates upstream providers from downstream business use and shares of output. The recommendations describe observable triggers and review ownership, not a policy prescription based on a single poll.

Employers should start with the work chapter and use the employer pilot and worker consultation worksheets. Select one workflow and a comparison group. Record quality, hours, employee progression and customer effects. Escalate job changes to the appropriate people and review channels where applicable instead of silently allowing a tool rollout to become a labor decision. [3] [14]

For educators and community leaders

Use the education chapter to compare AI-assisted practice with independent performance, role-based safeguards and access to alternatives. Use the transition worksheets to assess whether a program actually connects people to paid work. Training enrollment alone is not a labor outcome; use placement, retention, post-program earnings and progression where records permit. [11] [13]

References and AI-disclosure notes are at the end. Exhibits distinguish measured statistics from conceptual maps. When citing a statistic, keep the original source, research date and population, alongside any reported uncertainty. No private school, worker or customer records were used for this paper.

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PUBLIC OPINION AND POLITICAL DEBATE

The poll behind the twenty-year claim

Pew Research Center

U.S. adults

June 22–28, 2026; n=3,488

What the public expected

In Pew Research Center’s June 2026 survey, 71% of U.S. adults said AI would lead to fewer U.S. jobs over the next twenty years, compared with 64% in the August 12–18, 2024 observation. The answer concerns the direction of an aggregate change, not its magnitude. In 2026, 5% expected more jobs, 10% expected little difference and 14% were unsure; totals may not sum to 100 because of rounding or unanswered items. Pew fielded the 2026 survey with 3,488 participants from its American Trends Panel, designed to represent the noninstitutionalized U.S. adult population. The full-sample sampling margin was ±1.8 percentage points at the 95% confidence level; it is not the error bound for any age subgroup. [15] [17] [18]

What the poll cannot estimate

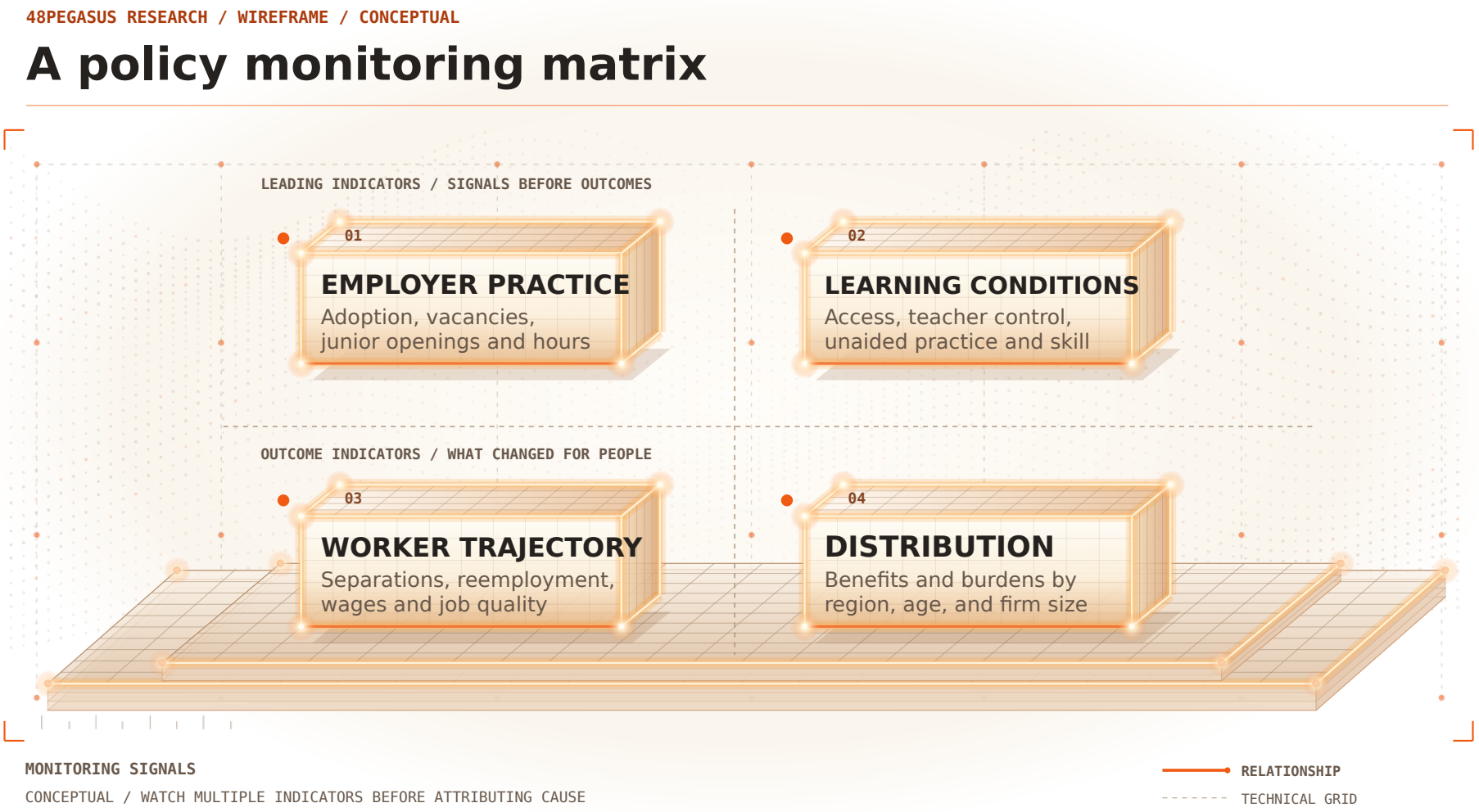
It is not an estimate that 71% of jobs will disappear, that 71% of workers will be displaced, or that the probability of national job loss is 71%. A retiree and a working adult are both in the population; neither has to report personal employment exposure to answer. People may also interpret fewer jobs relative to today or relative to the jobs otherwise available. The question does not supply an economic counterfactual. Present the result as a national expectation over the survey horizon. Repeating the same question strengthens descriptive comparison, but cannot show whether exposure to AI or another event changed beliefs. [15] [28]

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VISUAL EVIDENCE

Exhibit 02 A policy monitoring matrix



A dashboard can relate early indicators to observed outcomes without pretending they share a scale. Review disaggregated cohorts and compare to credible baselines before concluding that AI caused a change.

48PEGASUS Research conceptual exhibit. Not empirical data.

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PUBLIC OPINION AND POLITICAL DEBATE

Young adults changed most, not always highest

Ages 18–29

61% to 73%

2024–2026

Compare the four age bands

Pew’s reported shares expecting fewer U.S. jobs were 61% to 73% for ages 18–29, 66% to 74% for ages 30–49, 69% to 72% for ages 50–64, and 58% to 63% for adults 65 and older, from 2024 to June 2026. The youngest band registered the largest observed increase, 12 percentage points. In the later reading, however, its 73% was close to 74% among ages 30–49 and 72% among ages 50–64. Pew characterizes the youngest group’s current views as similar to the middle age bands. [15]

Interpret the gradient carefully

“Particularly among younger adults” is most defensible as a description of the change in Pew’s trend or the comparison with adults ages 65 and older. It is not a claim that respondents under 30 were uniquely alarmed or clearly more pessimistic than all working-age adults. In June 2026, Pew reported age-band sampling margins of ±4.7, ±3.1, ±3.5 and ±3.9 percentage points, respectively, with unweighted bases of 569, 1,256, 902 and 756. Adjacent rounded numbers do not establish a statistically significant ranking. [18] The age bands in each wave are repeated population slices. They do not isolate a fixed birth cohort or prove that each respondent reversed position. Keep the time comparison and the cross-age comparison distinct in a headline or exhibit. [15] [28]

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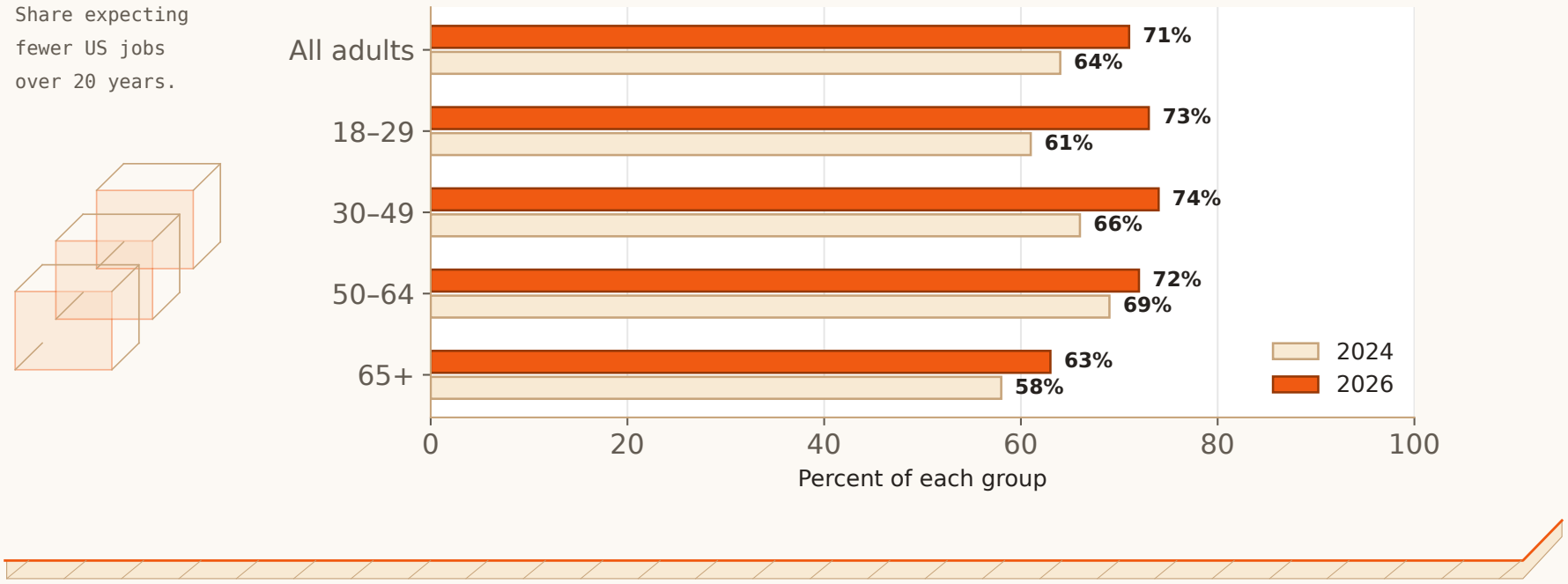
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VISUAL EVIDENCE

Exhibit 03 Expectations of fewer jobs rose

48PEGASUS RESEARCH / SURVEY COMPARISON

Expectations of fewer jobs rose



Pew surveyed 3,488 U.S. adults June 22–28, 2026. The youngest group had the largest observed change since 2024 (+12 percentage points); Pew describes their 2026 result as similar to ages 30–64. These are beliefs about the future, not forecasts or counts of jobs lost.

Pew Research Center, June 22–28, 2026 field period: primary source

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PUBLIC OPINION AND POLITICAL DEBATE

Daily-life skepticism is a separate measure

U.S. adults

Concern versus excitement

2021–2026

An attitudinal change beyond jobs

Pew’s daily-life item asks respondents how they feel about growing AI use, not whether total jobs will rise or fall. In June 2026, 52% were more concerned than excited, 37% equally concerned and excited, and 9% more excited than concerned. The comparable more-concerned share was 37% in 2021. Among ages 18–29, more-concerned sentiment increased from 31% in 2021 to 55% in 2026, while more-excited sentiment declined from 25% to 11%. Adults 65 and older still registered a higher 2026 point estimate for general concern (59%). Pew’s 2021 wording included an explanatory preamble about AI computer programs, noted in its topline. [15] [17]

Familiarity and concern can coexist

A younger person can use a chatbot for routine work while doubting that companies will share the gains. An older person may be more uneasy about AI overall while being less likely to predict job destruction. The measures have different outcomes and cannot be collapsed into one index without an explicit method. Pew’s separately fielded February 2026 report measures experience, use and expected impacts; it reinforces the need to distinguish task utility from broad assessments, not a rule that heavy use must increase or reduce concern. Report timing and population before interpreting a difference. [15] [16]

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PUBLIC OPINION AND POLITICAL DEBATE

A second survey points in the same direction

Quinnipiac University

Job opportunities

March 2026

A distinct outcome and question

Quinnipiac’s March 2026 poll found that 70% of adults thought advancements in AI were likely to decrease job opportunities, up from 56% in its April 2025 release. In the March survey 7% expected an increase and 18% expected little difference. Its adult Gen Z definition used birth years 1997–2008. Eighty-one percent of that group expected fewer opportunities, followed by Millennials (71%), Gen X (67%), Baby Boomers (66%) and the Silent Generation (57%). Quinnipiac’s question does not specify Pew’s twenty-year horizon. [20]

Agreement, not a merged trend

Both instruments are consistent with widespread pessimism. They are not sequential readings of the same variable: one asks about a direction in future U.S. job count, the other about opportunities without a named horizon. Generations defined by birth year are also different from fixed age brackets across waves. Putting all percentages on the same unlabeled line would imply precision the evidence does not supply. A small-multiple figure is more honest: show changes within each survey, print the two question summaries, and label the different field dates. Treat the direction of corroboration as an observation rather than a pooled estimate. [20] [15] [28]

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PUBLIC OPINION AND POLITICAL DEBATE

Changing the horizon changes the claim

Bentley–[*REDACTED*]

U.S. adults

Ten-year expectation

Broad pessimism at a shorter horizon

The July 2026 Bentley–[*REDACTED*] publication reports that 79% of Americans expected AI to reduce the total number of U.S. jobs in the next decade, compared with 73% in 2025 and 75% in 2024. Among adults ages 18–29, 75% expected a reduction in 2026, up from 62% in 2025; adults ages 45–59 recorded 84% in 2026, up from 75%. In the youngest group, the share expecting an increase fell from 14% in 2025 to 5% in 2026. [21]

Do not infer a time preference

The 79% ten-year response cannot be subtracted from Pew’s 71% twenty-year response to estimate how beliefs change as the horizon doubles. They come from separate instruments and samples, with potentially different wording, response options, question placement and field dates. A direct inference about time horizons would require a designed comparison, such as randomly assigning respondents to otherwise identical questions with different horizons. The existing figures support a narrower conclusion: pessimism appears under several formulations. Preserve the source authors’ terminology and avoid an average that erases the question actually asked. [21] [15] [28]

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PUBLIC OPINION AND POLITICAL DEBATE

National pessimism and personal concern differ

Quinnipiac University

Adults versus employed adults

Separate denominators

A national expectation is not personal risk

Quinnipiac’s March 2026 survey found 70% of adults expected a decrease in opportunities. Separately, 30% of employed adults were very or somewhat concerned that AI might make their own job obsolete, compared with 21% of employed adults in April 2025. In March, 69% of employed respondents were not very concerned or not concerned at all in the poll’s reported breakdown. In the separate national-outlook item, 71% of white-collar workers and 73% of blue-collar workers expected fewer opportunities overall. [20]

Avoid the fallacy of subtraction

The later national and personal shares should not be subtracted to infer how many particular people are worried about others but exempt themselves. The respondent universes differ and the question objectives differ. Some workers may anticipate slower hiring in other industries, entry-level roles, or distant years while judging their present position secure. Some may infer personal consequences without expecting national contraction. Neither interpretation can be determined without linked response data. For an employer pulse check, ask separately about industry outlook, own role, hours or earnings, and trust in planned redeployment. These measures imply different interventions. [20] [28]

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PUBLIC OPINION AND POLITICAL DEBATE

Technology obsolescence as a worker concern

[*REDACTED*] Work and Education

Employed respondents

August 3–24, 2026

A long-running measure

[*REDACTED*] reported that 27% of U.S. workers worried that technology could soon make their own jobs obsolete, up from 20% in 2025 and 13% when measured in 2017. In the August 2026 wave, 34% of workers ages 18–44 expressed this worry versus 19% of workers ages 45 and older. Worry was reported by 25% of college graduates and 29% of workers without a college degree. The item measures technology broadly rather than isolating generative AI. [22]

Put the question alongside ordinary insecurity

[*REDACTED*] reported 33% of workers worried about benefit reductions, 24% about layoffs, and 21% each about reduced hours and lower wages. These are different outcomes, not alternatives that sum to 100. A company that reassures workers only that it has not scheduled layoffs may leave the underlying issue of hours, pay or work intensity unanswered. Conversely, an employed-worker poll does not cover people excluded from hiring, recent graduates looking for their first job, or many people who already left paid employment. Combine workforce perceptions with hiring, separations and scheduling records before drawing a conclusion about realized risk. [22] [28]

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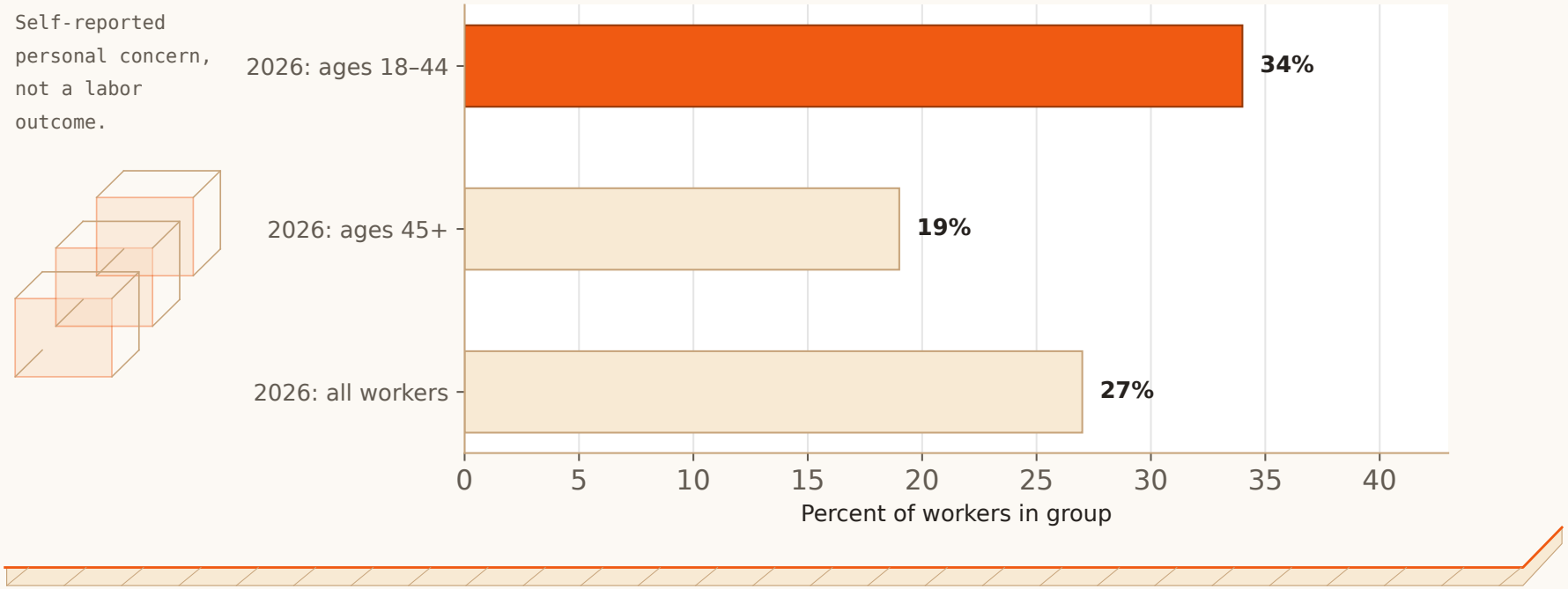
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VISUAL EVIDENCE

Exhibit 04 Workers worried about technology making jobs obsolete

48PEGASUS RESEARCH / EVIDENCE EXHIBIT

Workers worried about technology making jobs obsolete



Separate [REDACTED] Work and Education survey, August 3–24, 2026. The measure concerns workers' own jobs and technology generally, not the Pew question about the national impact of AI over twenty years. Age bands also differ.

[REDACTED], 2026 Work and Education survey: primary source

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PUBLIC OPINION AND POLITICAL DEBATE

Young adults see a threat to financial security

Harvard Youth Poll

Young Americans ages 18–29

Sept. 30–Oct. 7; n=2,024

Distinguish seriousness from likelihood

In Harvard’s fall 2026 youth poll, 64% described AI replacing jobs as a serious threat to their long-term financial security. The reported shares were 76% among young Democrats and 61% among both Republicans and independents. In the same poll, 68% regarded the power of large corporations as a serious threat and 62% said so about the wealth and power of billionaires. The study is a survey of young adults. It cannot be used by itself to compare respondents with older Americans or to estimate the causal effect of AI on economic insecurity. [24]

Why this differs from job-count polling

A respondent can believe job totals will grow while treating the risk of losing a foothold in a specific career as serious. Threat seriousness can reflect either a substantial perceived chance or the consequences of a low-probability event. Harvard also reported 49% of young adults described household finances as strained or lacking much security. That points to a larger context: a brief income interruption has different consequences for households with different savings, debt, benefits or family support. The poll does not establish which of those mechanisms explains any individual’s response. [24]

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PUBLIC OPINION AND POLITICAL DEBATE

Public concern is not top-issue salience

[*REDACTED*]–[*REDACTED*]

Dedicated items versus issue choice

2026

Prompted and competing priorities answer different questions

In June 2026 [*REDACTED*]–[*REDACTED*] results from 4,531 U.S. adults, 75% were very or somewhat concerned about AI eliminating jobs in some professions, and 53% expressed concern about themselves or someone in their household being put out of work by AI. The prompts vary whose welfare and whether a bounded group of occupations is in view. In a separate October [*REDACTED*]–[*REDACTED*] core political item, only 3% selected AI as the country's most important problem from the listed categories. These readings cannot be treated as contradictions. [26] [27]

Build a defensible political claim

A person can care deeply about AI displacement when asked directly and still rank cost of living, government conduct or another issue above AI when offered one choice. AI concerns may also be expressed under broader categories such as the economy, rather than under the AI label. The data establish prompted concern and comparative issue prominence, not that AI determined voting choices or any election result. A civic report should pair the poll's response format with a separate record of concrete political, administrative or civic actions. Those are distinct forms of evidence and do not substitute for one another. [26] [27] [28]

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PUBLIC OPINION AND POLITICAL DEBATE

Trust in institutions and trust in tools

Bentley–[*REDACTED*] and Quinnipiac

U.S. adults

2026

Low trust does not mean zero use

Bentley–[*REDACTED*] reported that 27% trusted businesses at least some to use AI responsibly in 2026, down from 31% the previous year. Among ages 18–29, the corresponding proportion fell from 30% to 20%, while the share with no trust rose from 29% to 41%. Separately, Quinnipiac reported that 76% of U.S. adults said businesses were not doing enough to disclose how they use AI and 74% said government did not do enough to regulate AI use. These are perceptions of governance, not independent tests of compliance or safety. [21] [20]

Improve the object of trust

Separate confidence in a system’s answer from confidence that an employer or agency will deploy it responsibly. A worker may trust a tool with summarization yet object to the same tool determining a promotion. A resident may favor product availability while demanding disclosures on adverse decisions. Policies should make uses intelligible at the decision point: what data are used, which recommendations influence people, where a person reviews, and how an error can be appealed. Pilots should ask workers about those controls directly rather than interpreting adoption as consent, or low adoption as proof of low utility. [21] [20]

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PUBLIC OPINION AND POLITICAL DEBATE

What workers say about their own experience

[*REDACTED*] for Groundwork Collaborative

Ages 18–75

June 11–16, 2026; n=1,533

A defined labor-force population

[*REDACTED*] surveyed a probability sample of Americans ages 18–75 who were employed or marginally attached to the workforce. Roughly two-thirds chose the view that AI would worsen the worker experience by eliminating jobs and increasing pressure rather than improve it by freeing workers from repetition and helping with more challenging work. This was a choice between bundled alternatives; it is not two separate measurements of workers reporting actual discharge or employer-imposed work intensity. [*REDACTED*] reported a full-sample sampling margin of ±2.7 percentage points at the 95% confidence level for qualified respondents. [25]

Why the denominator belongs in the caption

The study does not represent all adults regardless of age or connection to paid work. It also includes a group of potential workers beyond those currently employed. Within similar surveys, distinguish employed-only questions from broader eligible-worker questions and do not apply a full-sample error estimate to a smaller subgroup. For employer evaluation, ask separately whether a tool saves time, whether work targets increased, whether workers can decline its use, and whether it changes the expected number of positions. Unlike a bundled sentiment item, that design produces actionable information about mechanisms. [25] [28]

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PUBLIC OPINION AND POLITICAL DEBATE

Job quality may improve or deteriorate without a layoff

American Job Quality Study

Employee reports

January–March 2026

Users report both benefits and greater duties

[*REDACTED*] and its partners reported that 63% of employees who used AI in their jobs said it helped them work faster, 56% found more creative solutions, 47% could spend more time on interesting work, and 46% produced higher-quality work. Thirty-one percent said their employer asked them to take on more responsibilities because of their AI use. The reported effects concern 7,845 U.S. employees using AI at least a few times in the previous year, while the full survey included 15,482 employees. [23]

Measure who actually gained

In the full sample, 28% reported weekly or more frequent use. Rates were 40% for college graduates versus 17% without a college degree, and 37% for managers versus 25% for individual contributors. These comparisons show differentiated access or use, not that AI caused existing job-quality differences. Worker surveys should be paired with accepted work per paid hour, quality and rework, target changes, and total compensation. A shorter average task time can support more capacity, lighter workloads or higher targets; which occurred is more relevant to distribution than a generic speed metric. [23] [36]

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PUBLIC OPINION AND POLITICAL DEBATE

Workers distinguish AI from management decisions

[*REDACTED*] Pulse and Brunswick

Commissioned U.S. research

November 2026

How respondents assign responsibility

[*REDACTED*]'s second Pulse wave fielded an online survey of 1,600 U.S. adults, including an employed oversample, from November 4 to 7, 2026. Its published worker findings report that 45% viewed business leaders' decisions as a greater career risk than AI. Separately, Brunswick's November publication reports that 92% of its 65 senior leaders surveyed expected new opportunities from AI, compared with 53% of more than 2,000 employees surveyed. These are commissioning organizations' own descriptive studies, not job-flow estimates. [34] [35]

Read the evidence asymmetrically

Brunswick's leader panel is small and restricted to senior leaders at firms with at least 250 employees. Avoid presenting the difference as a definitive national executive–employee gap. The broader diagnostic is more useful: management may frame AI as opportunity while workers are trying to learn whether workload, job security or bargaining power will change. An internal decision review can record whose forecast is being used, test it against staff experience, and name the manager with authority to grant a new role, training time or an appeal. Do not interpret an announcement's rationale as evidence of what occurred. [34] [35] [28]

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PUBLIC OPINION AND POLITICAL DEBATE

Classroom adoption and student confidence can diverge

[*REDACTED*], [*REDACTED*] and REDACTED [*REDACTED*]

Ages 14–29; n=1,572

February–March 2026

High use is not unqualified optimism

[*REDACTED*] and partners surveyed 1,572 Americans ages 14–29 from February 24 to March 4, 2026, using the probability-based [*REDACTED*] Panel. In that study, 56% of Gen Z K–12 students and 48% of Gen Z adults reported weekly AI use. Across the surveyed Gen Z population, 80% believed using AI was very or somewhat likely to make future learning more difficult. The sample includes minors and adults. Neither the usage estimates nor the expectation of difficulty measure an actual change in student attainment. [29]

Ask the educational question directly

Distinguish completion speed, aided performance and durable independent skill. A classroom rollout should specify which assignments allow AI, whether students must explain their reasoning, and which learning objectives will be measured without assistance. Consider age-appropriate uses, accessibility, data protection and educator judgment as companion criteria. Federal education guidance issued in August 2026 encourages local decision-makers to focus on instructional value, transparency and evidence rather than engagement alone. The right policy comparison is not unchecked adoption versus a blanket ban; it is the incremental learning and risk of particular uses under clear rules. [29] [31]

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PUBLIC OPINION AND POLITICAL DEBATE

From sentiment to public action

Administrative guidance

Civil-society priorities

2026

Observable actions beyond the poll

The U.S. Labor Department published an AI literacy framework in February 2026 as a program-design resource for workforce and education institutions. The Education Department's August classroom technology guidance emphasized local decisions, evidence, and educator judgment. On November 18, the Harvard Institute of Politics listed a public workforce-transition forum with former Commerce Secretary ■■*REDACTED*■■ and former Indiana Governor ■■*REDACTED*■■. [19] The federal releases and forum show that AI has entered policy practice and public deliberation; none constitutes a guarantee of jobs or a universal legal obligation to implement a particular program. The documents serve different audiences and purposes. [30] [31]

A separate channel of civic intervention

In a November 18 plenary update, the U.S. Catholic bishops' task force chair called for dialogue with policymakers, technology leaders and communities around human dignity. Its contemporaneous investment guidelines name worker-support considerations, including retraining and human oversight in employment decisions. These are statements and stewardship principles from a civic institution, not government rules, measures of all Catholics' views, or evidence of achieved worker outcomes. Policy analyses should label the action being observed: survey expectation, guidance, investment principle, proposed legislation, enacted rule, appropriated program, or measured result. [32] [33] [30]

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PUBLIC OPINION AND POLITICAL DEBATE

Poll uncertainty and counter-examples

A survey claim audit

Dates, base, context

No pooled headline

Check what disagrees before generalizing

In the May 2026 [*REDACTED*]/[*REDACTED*] polling, the national-job question produced a different age ordering from some other surveys: 57% of adults under 30 forecast a decrease, compared with 65% of those aged 30–44, 70% of those aged 45–64, and 66% of those aged 65 and older. The poll drew 2,064 U.S. adults, and the published weighted base for the under-30 cross-tab was 415. The finding is compatible with Pew’s narrower conclusion that the youngest group showed the biggest increase between Pew’s own waves. Weighting and sampling help align a survey sample with its stated population but do not eliminate wording, mode, timing or coverage differences. [37] [15] [28]

Minimum disclosure for reproducibility

List owner and sponsor, target group, geography, field dates, recruitment and mode, weighted and unweighted subgroup bases when available, wording and bins, and uncertainty where reported. A question about all jobs cannot substitute for an item on one industry or a respondent’s own livelihood. Retain “unsure” where it matters; dropping respondents from the denominator can artificially inflate a percentage. Use percentage points for differences between shares. State whether an age contrast, a year-to-year trend, or a comparison of unlike instruments is under discussion. If cross-tab precision is not published, do not draw thin margins as if they were meaningful ranks. [28] [15]

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PUBLIC OPINION AND POLITICAL DEBATE

An accountable public-opinion dashboard

Proposed operating tool

Five series, five denominators

Do not calculate one fear score

Preserve the questions as separate series

Track national outlook with the same twenty-year wording over time, personal concern among workers, institutional trust among adults, classroom experience among eligible students or parents, and support for specific actions among whichever public the decision will affect. Each row should carry its own population and field dates. Record sponsor, version, filter, field dates and possible trend breaks. For fixed cohorts, design or acquire a longitudinal sample rather than assuming an under-30 group is unchanged over successive waves. [15] [22] [29] [28]

Treat opinion as an input to decisions

If personal concern rises in a controlled workforce pulse, investigate roles and surfaces creating the worry, publish planned changes and define protected time for training. If parent confidence in a classroom pilot falls, review actual learning and privacy data instead of attributing the result to a generalized dislike of technology. If public expectations of job loss rise while headcount is stable, check vacancies, cohorts, labor hours and earnings before claiming fears are unfounded. The useful output is a decision, owner and date for a retest. It is not a composite score that mixes populations or makes opinion look like labor-market fact. [28] [23]

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EMPLOYMENT AND CAUSAL EVIDENCE

From technical exposure to measured displacement

Task, job and worker

Five links in the chain

Exposure is not a probability

What each measure answers

An occupational exposure score asks whether an AI tool could affect some tasks normally performed in that occupation. It can reflect estimated time savings, model ability, or observed use on a provider’s platform. It does not establish whether an employer bought the tool, an employee actually used it, or the use displaced a paid hour. An occupation is a category of related jobs, and a job combines many duties under concrete production and accountability constraints. [38] [39]

Distinguish use from workflow design

A worker who drafts an email with AI is an adopter, but this is not the same as an employer routing all customer interactions through an autonomous tool. Adoption counts measure participation before they measure intensity. Use a second denominator, such as eligible transactions, and record whether human work was supported or bypassed. [40] [41]

Distinguish a staffing choice from its consequences

A company can increase output or quality, idle capacity, hire less, reassign people, lower hours, bring outsourced work in-house, or eliminate positions. National employment reflects further movement across firms and sectors. These outcomes require different records. Payroll shows employment in its coverage universe; departures, vacancies and changes in hours require separate measures. [42] [43]

What qualifies as an attribution claim?

To claim AI caused a job loss, identify the implementation, distinguish it from events such as weak demand or reorganization, show that it preceded the staffing change, and defend a credible comparison for what would otherwise have happened. A press release can support a claim about an employer’s stated rationale, not that comparison. Exposure ranks where to investigate; it cannot substitute for observed adoption, output, staffing and reemployment data. [44] [45]

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EMPLOYMENT AND CAUSAL EVIDENCE

ILO global index

Working paper 140

Task-based modeling

Global exposure is substantial and uneven

What the index measures

The ILO’s May 2025 update starts with detailed occupational tasks, asks human respondents and experts about automation potential, and extends its framework to occupations through task scoring and occupational employment shares. The classification separates increasing exposure gradients. Roughly one quarter of workers worldwide are in occupations with some potential exposure, but 3.3% of global employment is in the highest category. Clerical occupations remain highly exposed; newly capable tools also affect some specialized professional and technical tasks. [38]

A large income-level gap

The ILO estimates that about 34% of employment in high-income countries lies in occupations with some potential exposure, compared with 11% in low-income countries. Those are worker shares conditional on occupational structures, not adoption probabilities. As a result, low measured exposure can coexist with serious effects in particular internationally traded services or occupations. [38]

Why job redesign is not job removal

An accounting role may involve producing a draft report, finding documentation, interviewing a colleague, deciding on escalation and accepting responsibility for the conclusion. Drafting and lookup can change substantially even if judgment and verification remain. The ILO considers task transformation more likely than complete replacement in most occupations. This is a qualitative inference, not a statement that employment will never fall. [38]

How to model an exposed occupation locally

List tasks with paid time, repetition, quality threshold, rework, downstream responsibility, acceptable tool use and actual demand. Identify which can be assisted and which, if any, could be delegated while meeting those controls. Compare multiple assumptions about adoption, error correction and output growth rather than multiplying an exposure share by the workforce and labeling the product “jobs lost.” Regional sectors, language fit and institutional arrangements may substantially alter the result. [38] [39]

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EMPLOYMENT AND CAUSAL EVIDENCE

Gender and geography change the exposure mix

ILO exposure gradients

Employment composition

Distribution matters

Two comparisons, different denominators

For the ILO’s highest 2025 exposure category, its authors estimate 4.7% of female employment and 2.4% of male employment globally, and 9.6% versus 3.5% in high-income countries. A March 2026 ILO brief using harmonized microdata from 84 countries separately compares occupations by gender predominance: 29% of female-dominated occupations were exposed, compared with 16% of male-dominated occupations. The first comparison is worker-weighted within sex groups, while the second is based on occupations. [38] [46]

Occupational composition, not an immutable trait

The ILO links differences to occupational segregation, notably concentration in clerical, administrative and business-support work. This is a statement about jobs and tasks, not ability, preferences, work quality or an individual person's job-loss probability. A within-occupation analysis may reveal further differences in responsibilities, discretion, training and tool access. [46]

A practical distributional test

Compare adoption and staffing by occupation, grade, region and work arrangement before taking demographic averages. For each sufficiently large group, report access to training, task changes, starting pay, hours, promotions, reassignments and departures. Document changes in group composition. Do not use protected-group membership as a proxy for an individual’s automation potential.

Infrastructure can work in both directions

Lower occupational exposure does not mean countries are insulated from competition, nor that higher exposure necessarily means they will lose more jobs. Connection, reliable computing, financing and skills affect whether workers can use AI effectively. Policy should pair reliable access and training with worker input and locally measured outcomes. Comparing countries requires examining different task composition and definitions, not just copying a global exposure percentage into a domestic forecast. [47] [38]

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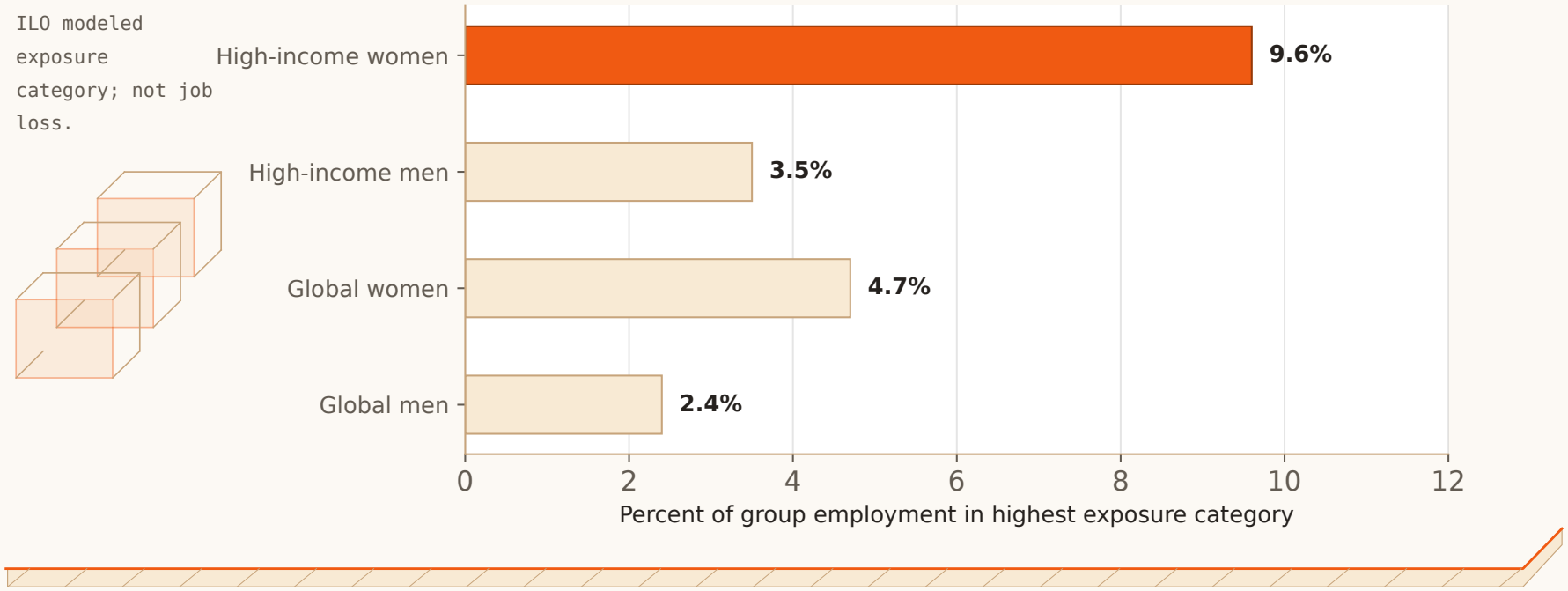
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VISUAL EVIDENCE

Exhibit 05 Highest exposure is unevenly distributed

48PEGASUS RESEARCH / EVIDENCE EXHIBIT

Highest exposure is unevenly distributed



ILO's 2025 modeled index estimates differences across employment groups. The bands refer to potential occupational exposure to generative AI, not the share of jobs expected to disappear.

International Labour Organization, 2025 index: primary source

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EMPLOYMENT AND CAUSAL EVIDENCE

The official U.S. baseline as of November 19

BLS October 2026

November 6 release

Macro context only

Household and establishment surveys

The October 2026 U.S. employment release reported 4.1% unemployment and about 7.1 million unemployed people. Participation was 61.9% and the employment-to-population ratio 59.3%. These come from the household survey. The separate establishment survey initially estimated a 165,000 increase in total nonfarm payroll jobs. These are different survey universes and should not be combined as if each payroll job represented a unique person. [42]

Vintages matter

The same release revised August’s gain to 186,000 and September’s to 60,000. Initial estimates change with additional responses and seasonal revisions; document the release date whenever the numbers are republished. In October, professional and business services, health care and transportation and warehousing added jobs; information showed little change. None of those industry totals reports AI attribution or what happened to a particular occupational grade. [42]

The flows beneath net payrolls

The latest JOLTS release by the cutoff, for September 2026, reported about 7.5 million openings. Openings are a stock on the last business day; hires, quits and layoffs are flows during the month. A flat net payroll count can coexist with substantial hiring and separation, and it can hide falling entry-level offers if senior hiring rises. [43]

How to use the baseline

For national context, compare revisions, participation, hours and hires with the geographic or sectoral question being asked. For causality, add measures of actual adoption and a credible comparison design; the national series themselves do not identify AI as a cause. October payroll growth does not refute localized displacement, and disproportionate weakness in an exposed subgroup does not establish economy-wide contraction.

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EMPLOYMENT AND CAUSAL EVIDENCE

Realized job loss versus announced cuts

BLS Displaced Worker Survey

[*REDACTED*] job-cut announcements

Different populations

A realized-displacement measure

The BLS Displaced Worker Survey estimated that 7.4 million U.S. workers were displaced in 2023–25, including 3.3 million whose lost job had lasted at least three years; 66.1% of those long-tenured workers were reemployed in January 2026. The measure covers job losses from closings or moves, insufficient work, or abolished positions or shifts. It is about all specified reasons, not AI. It also excludes someone whose first job was never offered. [48]

What reemployment does not tell us

The survey measures employment status at interview, not whether wages, hours, benefits, location or career trajectory were restored. A full measure of transition costs examines unemployment duration, earnings and occupational mobility, disaggregating by tenure and age. Group differences in reemployment are not, without further evidence, attributable to technology. [48]

A much timelier announcement series

[*REDACTED*] logged 617,189 announced cuts by U.S.-based employers through October 2026. AI was cited for 121,401, or about 19.7%, while market/economic conditions were cited for 130,531. In October alone, 1,265 of 43,994 announced cuts cited AI, or about 2.9%. Use the wording “AI cited in announced cuts,” not “AI laid off 121,401 workers.” The source tracks reported announcements and reasons through its own methodology; timing, implementation and attribution require verification. [44]

Why they cannot be summed

An announcement can occur long before an implementation or never materialize; the BLS survey looks back on observed worker experiences. Employers also may cite technology alongside demand or reorganization. These series complement each other as signals of different things; their counts are not interchangeable and cannot be added to estimate either layoffs or AI-caused displacement.

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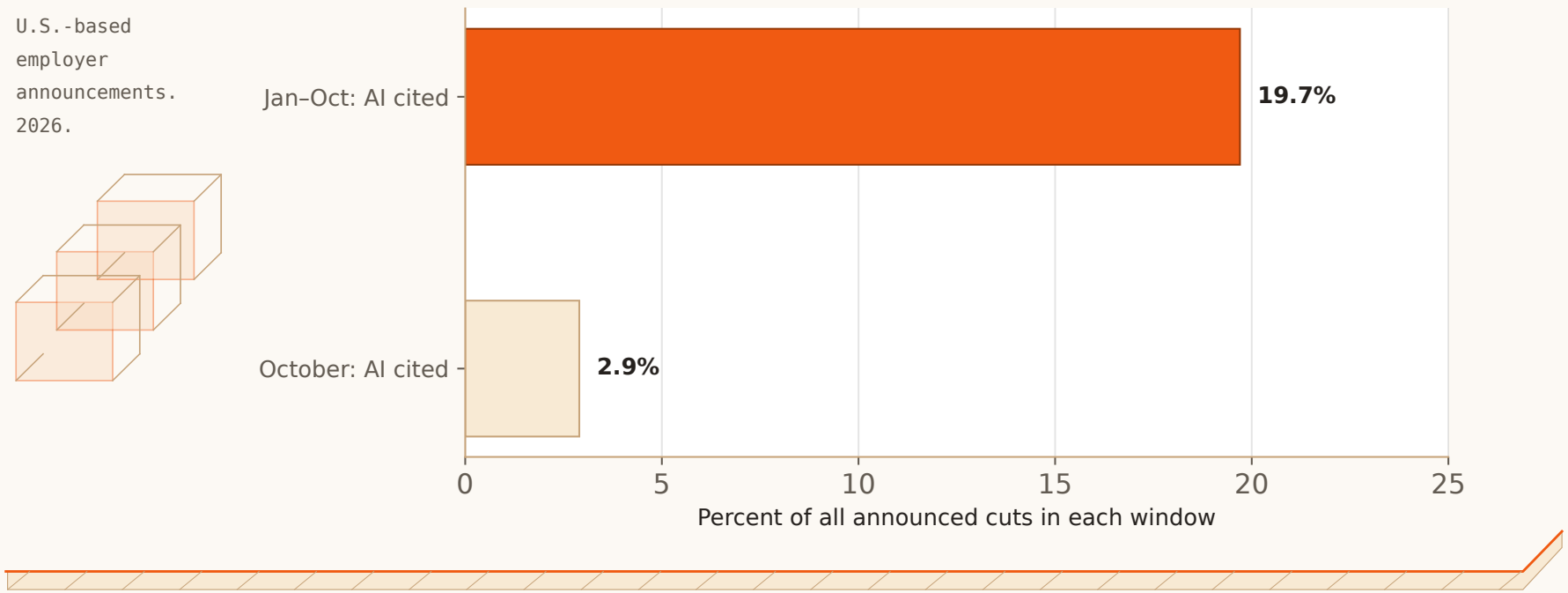
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VISUAL EVIDENCE

Exhibit 06 AI-cited cut announcements are not confirmed layoffs

48PEGASUS RESEARCH / EVIDENCE EXHIBIT

AI-cited cut announcements are not confirmed layoffs



January–October: 121,401 AI-cited of 617,189 announced cuts (19.7%). October: 1,265 of 43,994 (2.9%). The periods overlap. [*REDACTED*] counts employer announcements, not realized layoffs, verified AI causation, or all separations.

[*REDACTED*] October 2026 Job Cut Report: primary source

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EMPLOYMENT AND CAUSAL EVIDENCE

The early-career employment gap

Stanford and [REDACTED]

Data to June 2026

Descriptive benchmark

What the 19% means

The August 2026 revision of [REDACTED], [REDACTED] and [REDACTED]'s working paper analyzes U.S. administrative payroll data through June 2026. Employment among ages 22–25 in the two most exposed occupational quintiles stood about 19% below what the authors estimate it would have been had it followed growth in the three less-exposed quintiles for the same age group. The authors characterize this as a descriptive indicator. Slower hiring, rather than higher separation, was the principal margin of divergence in their sample. It is neither a 19% fall from the exposed group's own starting level nor a fraction of jobs known to have been removed by AI. [45]

The changes behind the relative comparison

From November 2022 to June 2026, employment in the more exposed group for ages 22–25 fell about 11% in levels, while the less-exposed group rose about 10%. Their ratio, roughly 0.89 divided by 1.10, illustrates why the relative shortfall is about 19%. This arithmetic compares group trajectories, not the fate of individual workers. [45]

Why the difference is informative

Experienced workers showed no comparable gap; the paper highlights early-career workers in software development and customer support and stronger weakness in occupations where use is characterized more as automation than assistance. Its payroll sample follows a subset of the U.S. economy, and exposure is associated with other features that can shift demand. The paper reports no evidence of widespread displacement in its data, an important limitation on extrapolating the subgroup signal. [45]

Monitor rather than declare a universal effect

Publish the age bin, occupation grouping, start and end dates, and denominators. Track hires, separations and starting pay across observable age and role bands. Triangulate against job postings and representative worker surveys. Avoid presenting estimates from different paper versions as comparable monthly points without verifying that their samples and definitions match. [45] [49]

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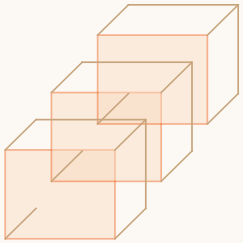
VISUAL EVIDENCE

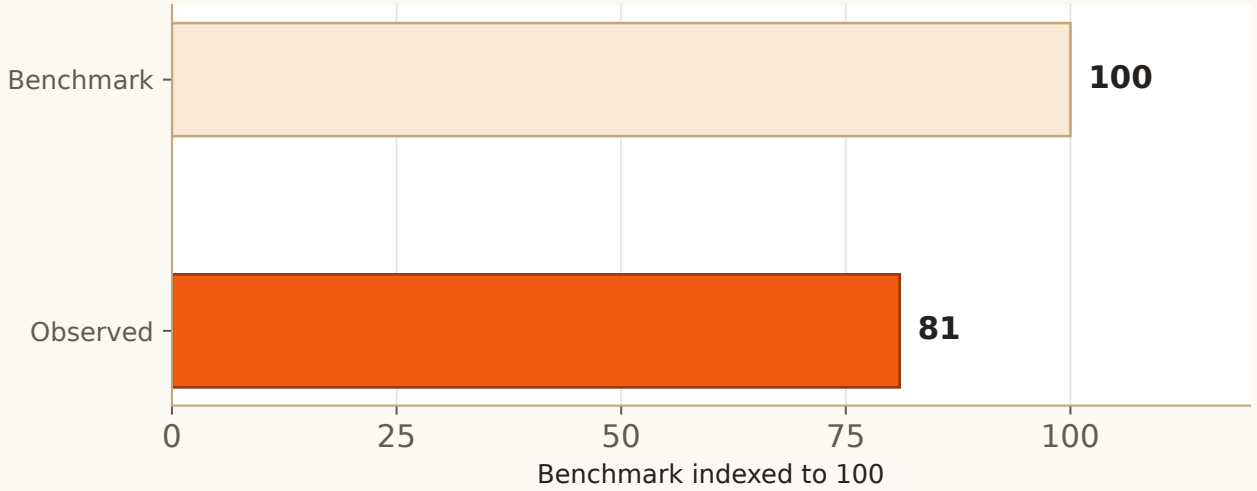
Exhibit 07 An early-career gap in exposed occupations

48PEGASUS RESEARCH / OBSERVATIONAL RESEARCH

An early-career gap in exposed occupations

Age 22–25. Through June 2026. Descriptive comparison.





Relative employment gap: about 19% | Not a layoff rate

Illustrative indexing of the authors' reported descriptive comparison. Employment of workers aged 22–25 in highly exposed occupations was about 19% below a benchmark where it kept pace with young workers in less-exposed occupations. No estimate of the number of people laid off or a causal effect is implied.

[*REDACTED*], [*REDACTED*] and [REDACTED], August 2026 study revision: primary source

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EMPLOYMENT AND CAUSAL EVIDENCE

Is a smaller junior share fewer junior jobs?

[*REDACTED*] and [*REDACTED*] [*REDACTED*]

41-country working paper

Composition versus levels

The international evidence

A November 5, 2026 working paper uses 1.25 billion job postings and 154 million employment records across 41 countries to study foreign affiliates of firms flagged as adopting AI, using AI-related hiring among its measures. The authors' instrumented analysis finds that the junior share fell by about 1.9 percentage points relative to comparison affiliates; most of the shift reflects growth in senior employment. The main estimate for junior employment is not a statistically precise decline. The data totals describe the research corpus, not numbers of affected workers. [50]

Distinguish share, level and hours

If a team expands from 100 workers (25 junior) to 110 workers (still 25 junior), junior share falls from 25% to about 22.7% without any junior job loss. If the junior category is defined by tenure, experience and job duties, the values will differ from a fixed age band. A national subgroup comparison and foreign-affiliate analysis need not produce the same estimate. [50] [45]

Limits of the design

Identification relies on the event-study comparison and assumptions about the adoption instrument. AI hiring can miss firms deploying vendor tools without hiring specialists, and the results need not generalize to domestic-only firms, small employers, or informal work. Results are still useful: they show how employers can change staffing mix while total employment and some senior roles grow. [50]

Career pipeline implications

A falling junior share can thin the number of future experienced workers even without an immediate fall in junior levels where senior demand keeps rising. Track junior openings and actual starts per cohort, mentoring exposure, promotion eligibility and senior fill sources. Test prospective skill shortages against real hiring demand rather than drawing a mechanical inference from a falling share.

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EMPLOYMENT AND CAUSAL EVIDENCE

Test competing explanations for youth outcomes

New York Fed

Remote work and vacancy evidence

Confounding matters

Overlapping shocks

Early-career hiring has been affected by the changing interest-rate environment, sector cycles, post-pandemic recruitment, and changes in workplace arrangements. The New York Fed's June 2026 analysis estimated that remote work could account for 64% of a particular increase in unemployment among young college graduates under its model, arguing timing makes it a plausible explanation for much of that increase. This is an analytical estimate about an observed episode, not a statement that remote work causes 64% of all graduate unemployment or that no later AI effects exist. [51]

Check the denominators

The NY Fed's third-quarter 2026 update reported 5.2% unemployment and 42.5% underemployment for recent college graduates. Underemployment is a measure of employed graduates in jobs that typically do not require a degree, unlike unemployment, measured among labor-force participants. The feature defines recent graduates as ages 22–27 with at least a bachelor's degree. Neither number is the unemployment rate for Stanford's exposed 22–25 subgroup. [52]

Other evidence counts vacancies, not outcomes

New York Fed staff's May 2026 job-postings analysis includes occupational and aggregate time comparisons by AI exposure. Postings can provide timely signals about employers' advertised demand, but do not prove hires. Duplicated listings, deleted ads, and shifts across recruiting platforms matter. A payroll comparison and vacancy comparison examine different margins. [49]

Design a stronger comparison

Check pre-existing differences in compressed hiring and remote-work feasibility. Hold workforce grade, industry and location constant where feasible; test changes across different dates and exposure measures; measure visibility and coverage of informal job opportunities. Report how estimates change with those choices. Not all competing explanations must be absent for AI to matter, but a credible analysis should quantify or bound their potential role.

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EMPLOYMENT AND CAUSAL EVIDENCE

Adoption is widespread but shallow

U.S. worker-reported use

Real-Time Population Survey

Occupations versus tasks

What worker surveys add

[*REDACTED*], [*REDACTED*], [*REDACTED*] and [*REDACTED*]'s nationally representative survey analysis links reports of generative AI use to occupations and work tasks. The authors find at least 20% of workers report using AI in more than 80% of occupations and on more than 40% of job tasks. At least half of workers use AI in only 40% of occupations and for fewer than 3% of job tasks. Occupation use is not task coverage, and breadth at a low threshold is consistent with shallow intensity. [40]

No direct replacement measure

Someone marking a task as AI-assisted can still perform the task, review its outputs or work longer to repair mistakes. Conversely, a company can use automated tools without every employee personally prompting them. Worker reports enable study of use, but replacement needs operational records about human work eliminated, shifted, reassigned or preserved. [40] [41]

Why platform logs differ

Provider logs cover a provider's users and can map one input to several possible work tasks. A taxonomy can overweight general writing categories shared across occupations, while employees' survey answers may be inaccurate or sensitive to employer policy. Logs, survey answers and approval records each answer different questions; none captures complete economy-wide work use. [40] [39]

An internal tracking design

Separate organizational authorization, user access, active use, transaction penetration, severity, tasks affected and quality-adjusted performance. Use the same reference period and deduplicate people across tools where practical. Offer private reporting and avoid using monitoring data for unrelated disciplinary evaluation. Where permissions and privacy prevent individual matching, publish aggregate coverage and acknowledge blind spots instead of treating a lack of observed use as zero adoption.

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EMPLOYMENT AND CAUSAL EVIDENCE

Firm adoption is not the share of workers using AI

Census BTOS supplement

November 2025–January 2026

Weighting changes meaning

One survey, multiple denominators

The Census Bureau research working paper finds 18% of firms used AI in a business function in the supplement period, or 32% when firms were weighted by employment. Measures for worker task use at firms are 23% and 41% on those respective weighting bases. The employment-weighted rate places greater weight on large employers; it does not identify individual users within adopting firms. [41]

Limited functional breadth

Among adopters, 57% reported applying AI in three or fewer functions. The same paper reports self-reported AI-related employment decreases in about 2% of AI-using firms (firm-weighted). This measures the share of firms reporting an outcome rather than the number of positions; an outcome can be rare among firms and concentrated by size or deployment mode. Examine tables and questionnaire before relabeling a denominator. [41]

Wording matters over time

The Census Bureau broadened the regular question in November 2025 from use in producing goods and services to use in any business function. The levels before and after the wording change are not directly comparable. A conversational assistant used in marketing is plausibly included under the broader wording even when the underlying production system remains unchanged. [53]

Implications for risk monitoring

Pair headline adoption with paid work hours affected, business functions, system version, assisted or autonomous use, spending, and quality. Add geography and establishment size only where sample coverage and support allow. Treat adoption as a process measure; a rise in one or two office uses is not proof of lower staffing requirements or a particular economy-wide output effect.

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EMPLOYMENT AND CAUSAL EVIDENCE

Productivity experiments establish local effects

Customer support and writing

Two primary studies

Different outcome units

A deployed customer-support assistant

[redacted], [redacted] and [redacted]'s peer-reviewed 2025 study of a staggered rollout finds a 15% average improvement in issues resolved per hour, with effects varying considerably across workers. Lower-skilled and less-experienced workers gained more in this setting. Use the published edition's 15% rather than silently mixing it with the 14% in the earlier working-paper abstract. This is evidence about assisted support productivity in the studied setting, not 15% fewer positions. [54]

An incentivized writing experiment

[redacted] and [redacted]'s randomized experiment with 453 college-educated professionals performing defined writing tasks found a 40% reduction in completion time and an 18% increase in evaluated output quality. The measures reflect selected assignments and the study's quality evaluation. They are neither annual labor productivity growth nor a reduction in the labor needed for entire jobs. [55]

Unit conversion changes the headline

Time per task is not tasks per hour. If a qualifying task takes 60% as long, repeating only that task without any other costs would raise its theoretical throughput by roughly two-thirds. A queue with review, meetings, compliance, downtime, training and different job duties does not match that assumption. Similarly, a higher score on a rubric cannot be added to a percent time saving.

Translate cautiously into operations

Measure quality-adjusted output, not just how fast a draft appears. Include repeat contacts, escalation, senior oversight, rework, service quality and fixed integration costs. If more output can be sold or if unmet demand is large, output may expand. If demand is inelastic and error control inexpensive, remaining paid hours may shrink. The staffing decision requires evidence about those additional conditions.

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EMPLOYMENT AND CAUSAL EVIDENCE

Performance varies by task and tool generation

Expert coding

Review and rework

External validity

Coding when context is expensive

In METR’s randomized early-2025 study, 16 experienced open-source developers worked on 246 real tasks in repositories with which they were familiar. AI access lengthened completion time by an estimated 19%, with a confidence interval of 2% to 39% longer in the subsequent methodology update. The study does not represent all developers, repositories or software tools. It illustrates how verification and contextual requirements change measured productivity. [56] [57]

The 2026 follow-up cautions against an easy reversal

METR reported that developers disinclined to work without AI increasingly opted out of its next experiment. It also flagged payment changes and difficulty timing parallel activity. Its authors judge newer tools likely faster in that setting but emphasize weak evidence about the magnitude. Neither paper supports a timeless statement that AI always slows or accelerates coding. [57]

Improvement and failure can appear together

REDACTED and colleagues’ field experiment with consultants finds improvements on selected tasks at which the tool was capable, while a task outside the tool’s effective range yielded worse performance. Staffing forecasts based on tool speed in an easy benchmark ignore challenge-case error rates and inadvertent reliance on polished but wrong results. [58]

A two-stage procurement experiment

First randomize eligible tasks or time windows while preserving quality review. Then retest on harder task strata, expert users, new entrants, different offices and common edge cases. Count downstream repair and reviewer time even when they occur outside the software. Estimate effects separately for each major task, model version and oversight configuration. Report whether workers can identify a bad result without cues and whether quality holds at higher volume.

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[*REDACTED*] and [*REDACTED*]

Danish linked records

Revised March 2026

EMPLOYMENT AND CAUSAL EVIDENCE

Task change can precede pay and hours

A precise finding with limited scope

[*REDACTED*] and [*REDACTED*] link large adoption surveys with Danish administrative records. Their revised working paper finds little effect on earnings and recorded hours on average, ruling out effects larger than 2% over the initial two years after [*REDACTED*]'s launch in the settings analyzed. It documents new tasks and reorganization in generation, oversight and integration. The result does not rule out every small effect, every subgroup change, or larger impacts later. [59]

Why it does not contradict group-specific U.S. evidence

Worker earnings and paid hours at organizations are not entry-level employment by age and exposure group. A company can reshape tasks and pay largely the same staff while reducing new recruitment later. Different institutions, exposed occupations and time windows further limit direct comparison. The Danish paper and the U.S. payroll paper can both identify accurate early features of their respective labor markets. [59] [45]

The missing organizational step

Some tasks are not measured on payroll. Saved time can go to quality work, learning, informal coordination, increased output, or changes in work intensity. A tool can also move costs from a junior task queue to a senior verification queue. To detect those transfers, join process measures to grade-specific staffing, training, case mix and supervisor workload.

Watch for level shifts after broader adoption

A short staffing lag is plausible but not guaranteed. If a deployment matures, look for changes in approved staffing budgets, contractor spend, attrition replacement, average workweek and vacancy composition. Ask whether the firm can absorb or sell additional output. Treat a close-to-zero estimate as a scoped result, not the arithmetic midpoint of all possible long-run outcomes.

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EMPLOYMENT AND CAUSAL EVIDENCE

Occupational forecasts and exposure ranks

BLS 2025–35 projections

Baseline not an AI scenario

Growth and vacancies differ

The decade baseline

BLS projects total U.S. employment to rise from about 170.3 million in 2025 to 176.2 million in 2035, an increase of 5.9 million or 3.5%. It incorporates many structural forces, including demographics, productivity and technology. It does not hold all other conditions fixed to isolate AI, and the projection universe should not be directly spliced onto the monthly payroll series. [60]

Roles do not move in lockstep

Data scientists are projected to grow about 35%, and the combined group of software developers, QA analysts and testers about 10%, from 2025 to 2035. BLS also anticipates pressure from continued workflow automation on several office and administrative-support occupations. Those are role-specific forecasts under many assumptions, not a list of roles safe from AI. [61] [62] [60]

BLS publishes a separate AI exposure product

Its four relative exposure categories combine external theoretical exposure and observed-use evidence. BLS explicitly warns users not to read a high category as a job-loss forecast, wage forecast, worker replacement estimate or adoption likelihood. A highly exposed occupation can grow because it derives economic value from using the technology, while low-exposure work can decline for unrelated reasons. [39]

Openings are not employment growth

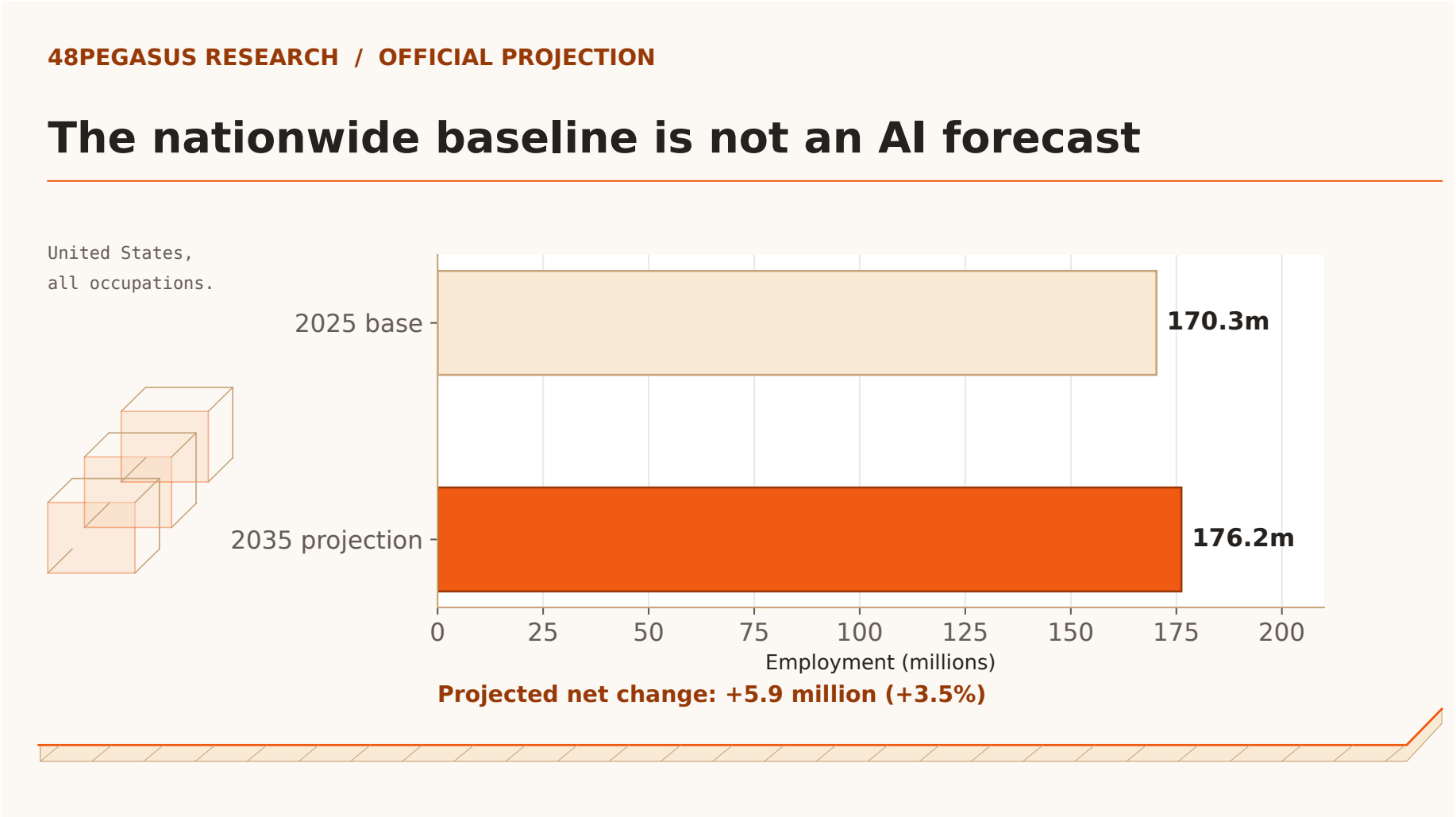
An occupation with little net growth can still post many openings as workers retire or move. A fast-growing, small occupation may add fewer roles than a slow-growing, large one. For training decisions, compare annual openings, net level changes, local employers, entry requirements, typical pay and whether placements actually materialize. Show forecast vintages and use alternative scenarios for major uncertainty. [62] [60]

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Exhibit 08 The nationwide baseline is not an AI forecast



The 2025–2035 BLS baseline projects about 5.9 million net additions economywide. It is not a no-AI comparison, not a forecast for intervening years, and not a count of jobs that AI will create. Values rounded.

U.S. Bureau of Labor Statistics, 2025–2035 Employment Projections: primary source

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EMPLOYMENT AND CAUSAL EVIDENCE

Gross churn cannot be read as net job loss

World Economic Forum

Survey-based 2030 estimates

All macro drivers

The often misquoted global figures

The World Economic Forum’s 2025 employer survey and formal employment baseline underpin estimates of 170 million jobs created and 92 million displaced by 2030, leaving a net increase of 78 million. The gross estimates reflect several concurrent macro trends, including demography, trade, climate and economic conditions alongside technology. They are not observed events, a forecast for generative AI alone, or identical to counts in the global workforce including informal activity. [63]

A positive net can still hurt

Positive net growth does not imply displaced workers can immediately fill new roles. Time, wages, credentials, geography, child care and access to trusted advice shape transitions. A new computing role does not replace a clerical role one-for-one from a worker’s perspective merely because both sit on a spreadsheet. [63] [48]

How to construct useful scenarios

Start with an employment baseline and separately vary the amount of work technically eligible, adoption and utilization, quality-adjusted labor savings, demand response, and the rate at which worker hours are retained or redeployed. Show gross staffing reductions and gross additions and then net them. Record whether the unit is roles, people, paid hours or full-time equivalents. Avoid creating apparent precision by adding global results from incompatible products.

Interpret a forecast as conditional

Label assumptions near each figure and show which direction the result changes when an assumption moves. Include the possibility of fewer entry roles alongside growing total employment. Track official releases and operational usage against clear thresholds. Update upon measured shifts rather than treating a 2030 employer-expectations exercise as a live national employment report.

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EMPLOYMENT AND CAUSAL EVIDENCE

From a task trial to a labor-market causal claim

A practical attribution audit

Identification before extrapolation

Observables and checks

Define the intervention and the outcome

Record the workflow, version, responsible team, deployment dates, users and transaction penetration. Predefine labor outcomes: headcount, entry hires, hours, wages, transfers and departures. Do not let an unspecified dashboard label such as “productivity gain” replace a measurable outcome. In a controlled trial, randomizing AI access can establish a task effect; randomizing shifts or units and measuring rework can improve the local production estimate. [55] [56]

Use a credible comparison

If randomization is infeasible, a phased rollout can support a comparison across matched teams. Check parallel trends and changing case mix, seasonality, demand, outsourcing and worker transfers. Confirm untreated teams did not already use equivalent tools. If a firm adopts AI in response to an earnings shock, before-and-after layoffs can reflect the shock, the AI decision or both. [59] [50]

Show what could falsify the story

If entry hires fall identically in low-adoption teams, investigate a hiring freeze. If reviewers’ hours rise enough to offset task savings, document where time moved. If a key result disappears under a pre-specified alternative comparison or revised baseline, report it. Measure outcomes long enough to distinguish pilot effects, learning curves, workforce adjustments and subsequent customer demand.

Limit what gets extrapolated

A team can prove a process result without proving national displacement. For a macro claim, document adoption coverage, composition weights, aggregate demand, new-job creation, transfers and credible alternative explanations. Publish uncertainty around causal estimates and the conditions under which an estimate applies. For administrative descriptive studies, say “associated with,” “attributed by the employer,” or “observed relative to a comparison” as appropriate. [45] [44]

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EMPLOYMENT AND CAUSAL EVIDENCE

Protect the first rung of the career ladder

Recruiting, learning and promotion

Measure throughput and skill

Illustrative employer response

Do not treat all novice work as expendable

Junior tasks often train workers to notice anomalies, navigate internal systems, understand customers and document decisions. A tool can eliminate repetitive steps while incidentally reducing opportunities to develop judgment. A customer-support rollout showing outsized performance gains for less-experienced employees instead suggests one potentially useful design: provide guided assistance and keep progressively more complex cases under human responsibility. [54]

A concrete redesign

For a help-desk, replace rote drafting with diagnostic practice, compare staff-written solutions with model suggestions, and rotate junior employees through human-supervised escalation reviews. For analysts, preserve independent problem framing and a period of tool-free verification; then allow AI where it helps retrieve or summarize source material. Define which outputs juniors must defend in their own words.

Test whether the redesign works

Track completed practice cases, corrected error patterns, time to independent assignment, quality for hard cases, mentoring hours and promotions. Watch whether senior workers spend more time supervising than predicted and whether promotion increasingly depends on prior experience unavailable to new hires. Report accepted offers and job starts, not just listings. These are recommended controls, not promises of improved employment. [49] [50]

Keep the feedback channel available

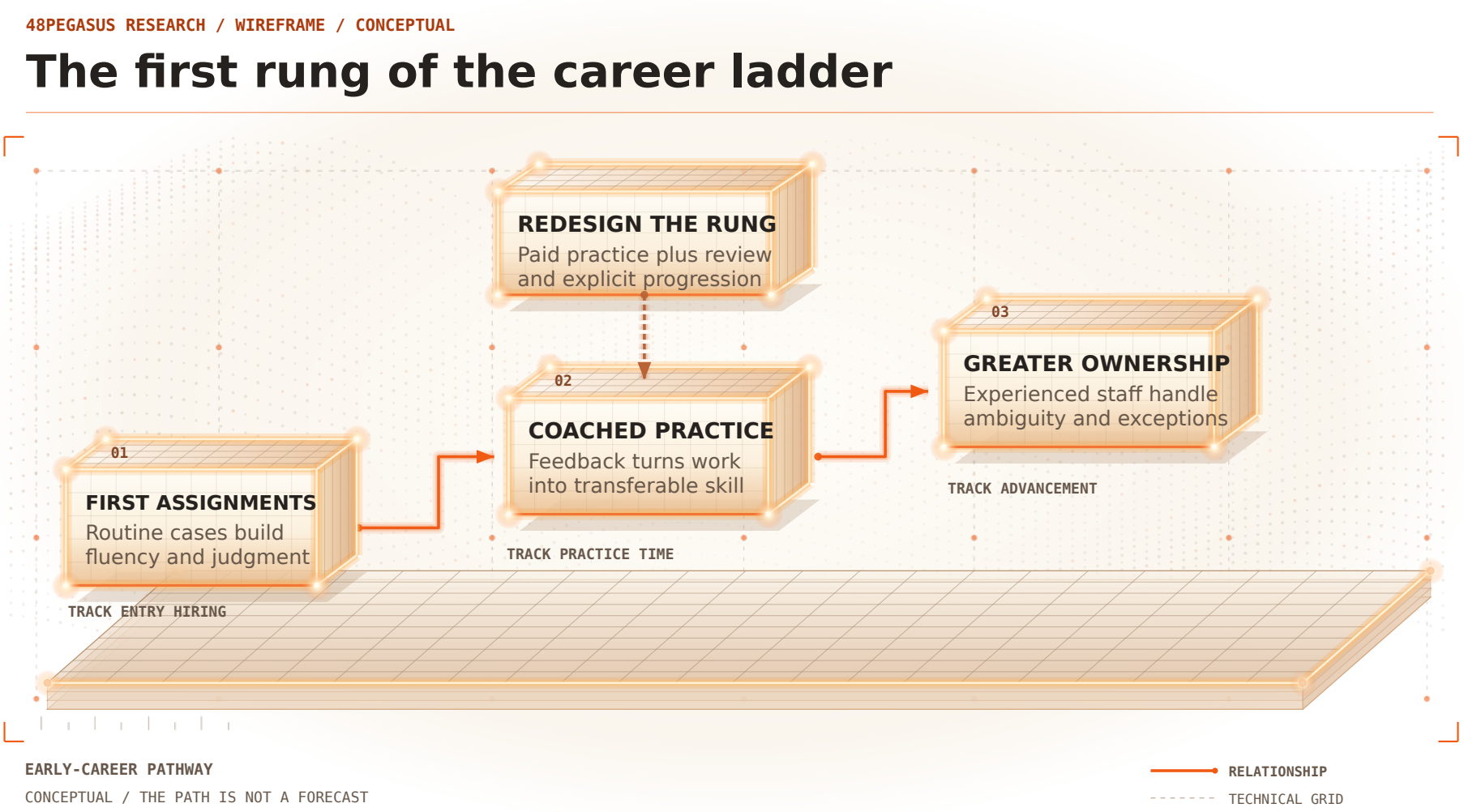
Solicit reports of being asked to rubber-stamp uncertain outputs. Make clear which staff have authority to slow production or escalate. Use age- and grade-appropriate comparisons without inferring an individual’s skill from age. Preserve staffing records alongside workflow records so future evaluation can tell whether a falling junior share reflects fewer opportunities, senior-team growth, or role reclassification.

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VISUAL EVIDENCE

Exhibit 09 The first rung of the career ladder



If AI absorbs some routine first assignments, the employer still needs a way to build judgment and progress workers. Structured practice and review are examples, not claims that every employer or occupation follows this pathway.

48PEGASUS Research conceptual exhibit. Not empirical data.

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EMPLOYMENT AND CAUSAL EVIDENCE

Build an employment dashboard with clear guardrails

Federal, project and worker indicators

Quarterly review

Escalate evidence, not headlines

A tiered public record

List labor market status from the latest BLS releases and label reference month and reporting vintage. Add official flows for hiring and layoffs, graduate outcomes, and dated measures of occupational exposure and usage. Tag each series by definition, coverage, unit, geography and whether it reflects observed outcomes, forecasts, intentions or modeled exposure. A dashboard that seems comprehensive but combines incompatible series can mislead more than a brief summary. [42] [43] [52]

A tiered employer record

Use three groups of indicators: operations (volume, quality, time, review), staffing (vacancies, starts, hours, pay, moves and exits), and equity (performance and access by sufficiently large relevant groups). Include worker feedback about workload, discretion and learning that an HR event log may not capture. [41] [46]

Interpret the pattern before acting

If adoption rises but opportunities and quality stay steady, maintain observation while screening small groups for concentrated losses. If entry hiring falls as volume rises and other evidence supports automation, review junior pathways and budget for transition. If adoption rises and error rates rise, pause automated action while preserving the assisted pathway and gather evidence. Follow records rather than forcing a single score to summarize incompatible outcomes.

Documentation and transparency

State what is known, unknown and scheduled for revision. Assign each measure an owner and source, and establish a challenge process for workers or managers who believe the numbers hide changed workloads. Avoid unsupported forecasts. National indicators, research results and employer pilots are complementary: none by itself establishes a position eliminated by AI or determines how the benefits will be shared.

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EDUCATION AND ENTRY PATHWAYS

Schoolwork adoption is not an achievement result

Student survey

United States ages 13 to 17

Fielded in fall 2025

What teenagers reported

Pew Research Center surveyed 1,458 U.S. teens and their parents online from September 25 to October 9, 2025. The findings represent teens ages 13 to 17 living with parents, not all young adults or the full K–12 population. Fifty-four percent reported having used AI chatbots to help with schoolwork. About 10% said chatbots helped with all or most of their work, 21% some and 23% a little. Forty-five percent did not use chatbots in this way; rounding and small nonresponse prevent an exact total. [64]

Comparing surveys

Pew's earlier [*REDACTED*]-only question found 13% in 2023 and 26% in 2024. These two comparable question results show a rise in reported use of that tool. Do not put the later 54% value on the same trend line: it measures any AI chatbot. Differences in wording and denominators can mimic gains in adoption. [65] [64]

Separate opportunity, use and mastery

A student who asks for hints, a student who checks references, and a student who submits generated answers may all answer yes to schoolwork use. The adoption question does not estimate usage hours, independent achievement, plagiarism or the effect of a school policy. Likewise, 59% describing classmates' AI cheating as at least somewhat common is a perception measure, not an observed infraction rate. [64]

What a district can measure

Use course-specific instruments to separate use for feedback or accessibility from substitution for assessed work. Combine an anonymous student survey, a small teacher observation sample, and a delayed independent task. State which students were surveyed, whether users self-selected, and what happens to students not using the selected platform. Avoid collection of unnecessary personal prompts. Evaluation should tell educators what happened to thinking, not merely prove that licenses were activated.

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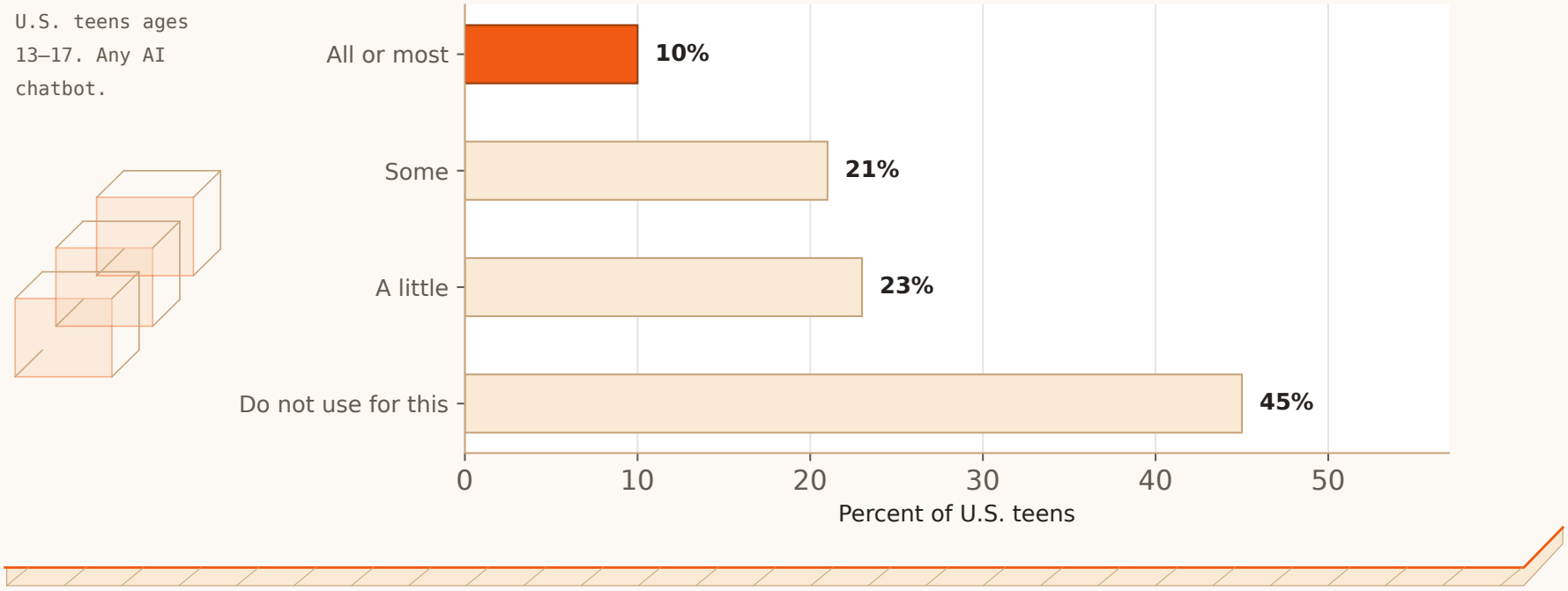
VISUAL EVIDENCE

Exhibit 10 More than half of teens used AI for schoolwork help

48PEGASUS RESEARCH / EVIDENCE EXHIBIT

More than half of teens used AI for schoolwork help

U.S. teens ages 13–17. Any AI chatbot.



Pew fieldwork September 25–October 9, 2025; published February 24, 2026. The first three categories sum to 54%. Responses are rounded and not all responses are shown. Do not splice with older [*REDACTED*]-only questions.

Pew Research Center, How Teens Use and View AI: primary source

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EDUCATION AND ENTRY PATHWAYS

Teachers want time back, but time is not a headcount estimate

Teacher-reported adoption

Independent workload study

Preserve instructional capacity

Recent U.S. evidence

The [redacted] and [redacted] surveyed 1,952 U.S. K–12 educators online July 28–August 14, 2026, including teachers, paraprofessionals and others working in classrooms. Fifty-nine percent said they used AI tools for work activities during the 2025–26 school year. Among users, 13% said they got a lot more time for valued work and 51% somewhat more; 29% reported no effect and 7% less time. These are perceived effects among users, not randomized changes in hours. The question included adaptive learning and interactive platforms as well as chatbots. [66]

Reported gains are not automatically redistributable

A few minutes saved in scattered tasks cannot simply be reassigned into budgeted teaching posts. Time may move to correcting outputs, mentoring students, adapting instruction, or meeting previously unaddressed needs. A cost model should account for setup, review, policy and training time as well as time returned.

A test of time savings

England's NFER evaluation for the Education Endowment Foundation used a randomized comparison for an AI lesson-planning assistant, Aila. Over ten weeks in autumn 2025, Year 3–6 teachers assigned access spent about 2.5 hours weekly on lesson and resource preparation versus 3.3 hours in comparison, saving about 49 minutes. Independent review did not find worse materials. Both groups could use other generative tools. The measured outcome was preparation time and assessed material quality, not pupil achievement, budget savings or positions made unnecessary. [67]

Put saved time back in the classroom

For a local pilot, track preparation, verification, revision and actual time reallocated, plus accessibility and error quality. Ask whether feedback to students improved, whether individualized support increased, and whether cuts would erase the time that review requires. Treat recaptured teacher time as a conditional dividend, not a forecast of staff reductions.

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EDUCATION AND ENTRY PATHWAYS

AI-assisted practice and independent learning can diverge

Randomized math trial

Türkiye

Relative scores versus control

Why the outcome changes the story

In a classroom-randomized high-school mathematics study in Türkiye, [*REDACTED*] and colleagues compared a control group, a [*REDACTED*] based assistant configured like a general chatbot, and a tutor configured with teacher-supplied solutions and progressive hints. During assisted practice, the base and tutor groups scored 48% and 127% higher, respectively, relative to the control group. These are relative changes from the control mean, not percentage-point changes or national grade gains. [68]

The tool was then removed

On an exam without the AI, the [REDACTED] Base group scored 17% lower relative to the control group. The negative effect was largely mitigated in the guarded-tutor arm, whose exam difference was not statistically distinguishable from control. That does not prove the exact effect is zero. It also does not show the guarded tutor produced a positive independent learning gain in this setting. [68]

Why attempts and explanations matter

Students can finish more questions while practicing fewer of the decisions the exam requires. This mechanism is plausible and supported by observed interaction patterns in this trial; it should not be inferred for every learner from product telemetry alone. Teacher-designed scaffolding can move effort back onto the student: insist on an initial attempt, request a reason, offer the smallest useful hint and ask the student to solve a changed problem. [68] [69]

How to audit a pilot

Define the knowledge or method that should transfer before picking the tool. Collect an assisted practice measure, an immediate unaided measure and a delayed unaided transfer measure. Specify whether accessibility supports remain available; removing the AI is different from removing established accommodations. If assisted scores rise and independent scores fall, stop scaling until the activity is redesigned. A good-looking exercise is not enough to justify a rollout.

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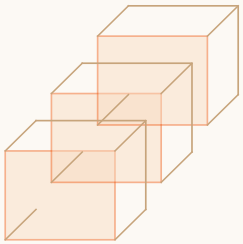
VISUAL EVIDENCE

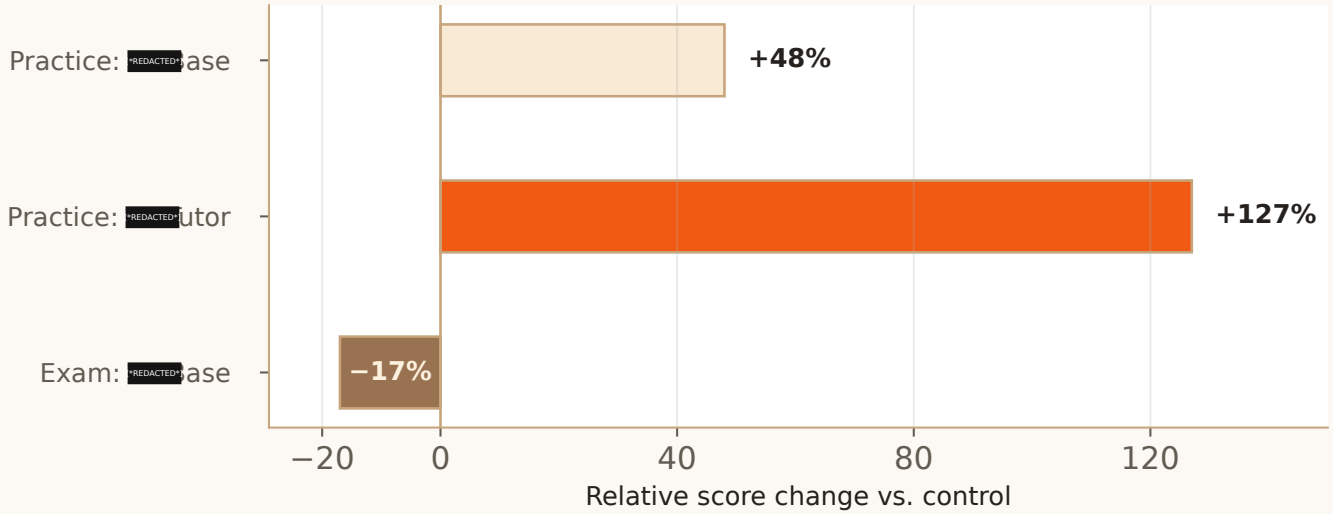
Exhibit 11 Assisted practice was not the same as learning

48PEGASUS RESEARCH / RANDOMIZED FIELD EXPERIMENT

Assisted practice was not the same as learning

One high-school mathematics setting in Türkiye.





[REDACTED] Tutor exam: difference not statistically detectable.

One randomized experiment tested two designs in a Turkish high-school mathematics setting. Reported effects are relative to control scores, not percentage-point changes. [REDACTED] Tutor's unassisted exam difference was not statistically distinguishable from control; it is not plotted as precisely zero.

[REDACTED] et al., Proceedings of the National Academy of Sciences: primary source

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EDUCATION AND ENTRY PATHWAYS

Tutoring evidence depends on who or what receives assistance

Three experiments

Different populations

Do not pool outcomes

Human tutors can remain the pilot's center

Tutor CoPilot supplied suggestions to human tutors in K–12 online math tutoring rather than placing an unrestricted chatbot directly in front of students. Research by [*REDACTED*] and colleagues reports a four-percentage-point increase in exit-ticket mastery, from 62% to 66%; the lower-rated tutor group improved nine points, from 56% to 65%. These are site-and-program-specific short-run pass rates and the subgroup should not be taken as a promise for every inexperienced tutor. [70]

A teacher-facilitated program

A World Bank working paper on a six-week after-school program in Edo State, Nigeria, reported a 0.31-standard-deviation treatment gain on a combined assessment of English, digital skills and AI knowledge. The intervention bundled generative AI with structured sessions and supervision. The randomized comparison supports the package's local effect, not a clean estimate of the independent contribution of the software. [71]

A college design is a different test

[*REDACTED*] and colleagues studied a course-specific tutor against active-learning instruction in an undergraduate physics course. Their randomized study reported higher learning gains in less time for the tutor condition on the measured lessons. The finding informs course-specific tutoring design, not the broader effect of replacing all classroom time or the durability of gains across semesters. [72]

Replication before scaling

Show each case with its age group, subject, teacher role, comparator, test timing, outcome and product configuration. Do not rank an exit-ticket percentage-point effect against standard deviations on a composite or a physics intervention test. Where possible, test the least expensive adequate alternative: teacher feedback, established tutoring, peer support or non-generative formative software. Only scale if effectiveness, accessibility, supervision and full operating costs are credible locally.

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EDUCATION AND ENTRY PATHWAYS

Higher education should teach with tools and test beyond them

Proctored experiment

July 2026 working paper

Not a universal college effect

What a recent experiment found

[*REDACTED*] and [*REDACTED*] randomly assigned undergraduate students to access off-the-shelf generative AI or not while studying an unfamiliar topic and writing in proctored sessions. On the immediately following unaided knowledge test, access increased scores by 0.27 standard deviations; gains persisted one week later. The authors also report that delayed essay gains occurred especially for students who used AI for explanation rather than generating text. The experiment identifies the effect of access under its design; students' selection into usage modes is not itself a randomized intervention. [73]

What it adds to the evidence

The result is not inconsistent with a negative unassisted exam effect elsewhere. Subjects, baseline skills, the intervention, and the outcome can differ. A course can benefit from directing time to reading and asking conceptual questions while losing practice if students outsource the assessed skill. This July 2026 study is a working paper, not conclusive evidence about all higher education effects. [73] [68]

Rebuild syllabi around intelligible permissions

Mark each assessment's AI permission and rationale. Give students a clear explanation of when sources must be independently checked, whether tool-assisted editing is allowed, when disclosure is required, and what does or does not count as an accommodation. Include a non-tool path when equivalent work is required and universal access is missing.

Give both types of credit

An unaided explanation shows subject mastery. An assisted work product can show selection, supervision and revision. An assignment can test both without equating a product demonstration to a skill test. In a budgeting module, for example, students first compute key estimates from a source table, then ask an assistant for an alternative scenario, verify the output and defend which assumptions changed the recommendation.

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EDUCATION AND ENTRY PATHWAYS

Assessment integrity needs evidence, not a detector verdict

Student rights and accountability

Multiple sources of evidence

Maintain review channels

The reliability problem

A 2023 study evaluating particular [REDACTED] detectors and writing samples reported elevated false-positive rates for non-native English writing. That finding does not establish that all detectors, versions or datasets have the same error rates. It does show why institutions must verify the detector's applicability before treating its scores as meaningful. The true case mix matters: a low false-positive rate on a vendor benchmark can still yield many false accusations when prohibited use is rare. [74]

A worked arithmetic example

Suppose 1,000 assignments include 20 actual policy violations; an illustrative detector catches 90% of those and falsely flags 2% of the 980 others. Approximately 18 true flags and 20 false flags result. Fewer than half the flags are correct even though the headline sensitivity sounds high. This arithmetic is illustrative only; none of the assumed rates is a claim about a real detector.

Move evidentiary weight onto learning

Before a problem occurs, design checkpoints: notes, source discussion, explanation of decisions, revision evidence and a transfer task. At review, distinguish authorship uncertainty from policy violation. Evaluate any school-approved accessibility tool in context. Do not use detector output alone to discipline students. Provide notice of the issue, human review, an opportunity to explain and an appeal process appropriate to the institution.

Data discipline applies to assessment too

Do not upload identifiable drafts to an unapproved detector to investigate suspected misuse. Limit access to records and use published retention rules. Review disparities by assignment type and grade or language group where sample size and privacy rules permit. Report overturned flags as well as upheld decisions; tracking only cases that survive a filter conceals the cost of false positives. [75] [74]

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EDUCATION AND ENTRY PATHWAYS

Teach AI literacy as an extension of foundational skills

Transferable knowledge

Verify against sources

Learn when not to delegate

Frameworks identify more than prompting

UNESCO's student framework organizes 12 competencies around a human-centered mindset, ethics, techniques and applications, and system design, across understanding, application and creation. Its teacher framework adds professional competence in pedagogy and learning. OECD and the European Commission published a primary and secondary AI literacy framework in 2026. These are curricular resources, not mandated universal learning standards. [76] [77] [78]

Make the skill visible

Ask students to compare answers against independently checked sources, identify unsupported certainty, explain how input quality affects retrieval or generation, and explain when to involve a person. Require factual, mathematical and domain reasoning before tool use. For younger learners, discuss classifiers and uncertainty with examples or paper exercises instead of requiring any individual AI account.

Fundamentals are not optional

The OECD adult skills survey distinguishes literacy, numeracy and adaptive problem solving, each with its own scale. Those domains are not measurements of AI literacy, but they clarify the foundational skills learners need before asking a model to explain, judge or adapt. A fluent prompt cannot substitute for recognizing whether an answer's units or cited source make sense. [79]

Curriculum example

In a school-to-career materials-planning exercise, provide a short supplier table and a client constraint. Have students calculate the order unaided. Next, ask them to compare their results with an approved tool's proposal, verify calculations, identify a misleading assumption and produce a short recommendation. The final assessment should score both baseline competence and the ability to use assistance responsibly. Tools change quickly; verification, numeracy and a well-framed problem remain portable.

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EDUCATION AND ENTRY PATHWAYS

Build career pathways around supervised practice

Entry opportunities

Paid learning

Evidence employers can recognize

Protect what junior work used to teach

Routine first-year tasks can be inefficient and still teach useful judgment when paired with feedback. If a tool performs drafts, searches or simple calculations, employers should preserve deliberate opportunities to build basic competence and observe senior decisions. Training plans can use realistic cases whose correct answers are initially withheld, short observation rotations, and scheduled review of errors. Do not infer from classroom experiments that a particular occupation will disappear. [69]

A tested institutional structure

U.S. Registered Apprenticeship combines paid work, structured learning and mentorship, related instruction, and a recognized credential. Similar design principles can be adapted to employer-led training, though a program should not call itself registered without meeting the formal requirements. Put paid release time, instruction cost, and supervision responsibilities into the operating budget. [80]

Make the credentials usable

A short course completion measures participation, not competence or placement. Give employers a work sample with clear evaluation criteria and separable evidence of unaided competence, assisted execution, and review. Include task context and version where relevant. Assess independently rather than relying on activity logs or a tool-certified skill claim. Apprentices should be able to take the evidence to another employer.

Measure who gets through the path

Track applicants, interviews, paid placements, progression and retention for eligible groups with adequate privacy. Distinguish participants who change jobs by choice from involuntary displacement. Compare against earlier cohorts or matched alternatives and report uncertainty. Avoid using course enrollment as a proxy for workforce resilience. Locate mentorship where students actually need it, including adult career transitions and community colleges.

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EDUCATION AND ENTRY PATHWAYS

Digital equity is about the conditions of productive access

Device and broadband

Access to support

No compulsory paid account

Access has layers

A household with mobile internet is not necessarily able to run a laptop workflow, read dense tables, review long drafts or join a live session. NCES reports home connectivity for U.S. children ages 3 to 18 separately for computer access and smartphone-only access by selected characteristics. Those data describe internet-device access, not ownership of an AI subscription or measured exposure by classroom. [81]

Different bottlenecks dampen adoption

Device reliability, fast connections, language support, accessible features, protected time and knowledgeable help are different requirements. A tool may be broadly available but not function equally under weak service or on devices students share. Paid higher tiers or available parent coaching can change what using the same service means. A classroom survey that asks only whether students have ever used AI cannot identify these bottlenecks. [69] [64]

Design equivalent paths from the start

Provide an approved baseline tool or a nondependent alternative for assignments, open supervised access hours, put critical reading and evidence in offline-friendly formats, and offer offline or lower-bandwidth routes where relevant. Assign technical help rather than making lack of comfort a measure of achievement. Do not require consumer sign-ups or personal accounts to complete mandatory work.

Monitor equity as implementation quality

Report uptake, device or access failure, evaluation completion and learning gains with appropriate comparison groups. Compare how access and usefulness differ jointly; for instance, ask whether students with reliable laptops but limited study time complete the same number of practice attempts. Suppress or combine small cells under suitable privacy rules. Treat significant unmet access as an implementation hazard to correct before comparing learners' outcomes.

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EDUCATION AND ENTRY PATHWAYS

Accessibility calls for a tested accommodation route

Disability inclusion

Language and modality

Technology as support, not substitute

Potential utility in specific tasks

Speech-to-text, contrast enhancement or controlled summaries can help some learners access instructions; translated explanations may help some families or multilingual students participate. Generated accessibility output can also be inaccurate or incomplete. Check whether a description captures a chart's material information, whether captions match key content and whether translation preserves qualifiers. Offer an accessible non-AI equivalent when the tool fails. [82] [69]

Distinguish platform from accommodation

An institution should not use a policy against student-facing generative tools to unintentionally remove required assistive technology. New York City's 2026–27 guidance explicitly excludes assistive technology provided through an Individualized Education Plan or Section 504 plan from its AI-and-screen-time restriction and recognizes additional necessary tools. The exact treatment of a student's situation must follow applicable local processes. [83]

Conformance is not the full user experience

WCAG 2.2 offers testable web-content criteria, including text alternatives, keyboard access and navigable controls. Pair conformance review with actual tasks: start a session without a mouse, get meaningful screen-reader feedback, correct transcription, navigate error messages and access mathematical notation. Evaluate the tool and any generated artifact it expects students to read. A vendor claim or one successful login is not a usability study. [82]

Maintain an appeal and fallback

Include affected students and accessibility specialists in low-risk design testing without asking students to expose sensitive information unnecessarily. Record what the approved route is for a failure, how quickly help arrives, and whether a human can review an incorrect automated result. Evaluate outcomes separately rather than assuming one assistance feature resolves every need.

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EDUCATION AND ENTRY PATHWAYS

Student data protection is a procurement issue

U.S. baseline examples

FERPA and COPPA are distinct

Seek qualified advice

Start with the data flows

Before using a product, record the parties with access to student information, what they receive, the purpose, retention period and which subprocessors can use it. Include prompts, files, transcripts, screenshots, account details and embedded platform integrations. A tool reviewed last year can create a new data flow when it adds an assistant or changes a setting.

Two different federal regimes

FERPA applies to covered educational institutions and regulates education-record disclosures, subject to specified exceptions. The U.S. Education Department's privacy guidance discusses conditions for studies, audits and other uses. COPPA separately regulates covered operators' collection and use of personal information from children under 13. FTC guidance limits school authorization to the educational context for the school's benefit, not unrelated commercial purposes. These are separate checks and do not exhaust state or local obligations. [75] [84]

Set approval gates

Use synthetic teaching material for early testing. For a live pilot, specify purpose limitation, settings that govern secondary use and training, restricted staff access, audit and breach provisions, data export, verified deletion and contract-change notices. Do not assume a student or teacher accepting a consumer terms-of-service screen answers these questions. Require the vendor to explain defaults and where choices actually take effect.

Keep procurement and academic authorities separate

A curriculum leader should confirm educational value; a privacy or security lead should validate protections; an accessibility lead should check inclusion; and a program owner should maintain the approval. A product may meet one objective and fail another. Maintain a public-facing description in plain language, a contact for questions and a practical route to stop processing or change scope if the product changes.

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EDUCATION AND ENTRY PATHWAYS

U.S. education policy operates at several levels

Federal grant priorities

State implementation

Local classroom rules

A grant priority is not a classroom mandate

The U.S. Department of Education's July 2025 grant guidance described allowable AI-supported educational uses subject to existing program and regulatory requirements. Its final priority on advancing AI in education, published April 13, 2026 and effective May 13, can be used in discretionary competitions. It is not a requirement to buy AI, a conclusion that any named product is safe, or a substitute for checking the relevant grant program. [85] [86]

Tennessee uses local policy as one lever

Tennessee Public Chapter 550 requires local education boards and public charter governing bodies to adopt policies on instructional and assignment uses by students, teachers and staff. It also addressed certain Tennessee public higher-education governing boards. The statewide duty to maintain policies is distinct from the local choice about if, where or for whom a specific tool is permitted. [87]

Compare with a restricted local rollout

New York City Public Schools adopted a 2026–27 moratorium on student-facing generative AI for grades 2-K through 8, subject to its guidance and accommodation exceptions, and limited high-school use to vetted purposes while introducing AI literacy modules. The mayor's announcement describes a one-year policy with a review, not the prohibition of all school technology or a national rule. [83] [88]

What can coexist

A federal grant may support AI curriculum development, a state may require local rules, and a locality may prohibit a younger cohort from using a particular class of product. A policy inventory should specify issuer, jurisdiction, population, scope, exceptions, term and review owner. Distinguish final, effective rules from proposals and convenience summaries; do not turn elective teaching recommendations into purported mandates.

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EDUCATION AND ENTRY PATHWAYS

International education frameworks make different choices

England product guidance

Australia school framework

UNESCO competencies

England focuses on product safety and procurement

The Department for Education's product safety standards, updated January 2026, distinguish intended purposes and cover matters such as age-appropriate filtering, social and cognitive development, safeguarding, and monitoring. They chiefly guide developers and suppliers and can inform school purchasing. On November 10, 2026 the department opened a consultation on proposed edtech and AI product safety certification. A consultation is not an operative certification scheme or a guarantee about the status of any vendor. [89] [90]

Australia applies a school-wide framework

The Australian school framework organizes responsible generative AI use around teaching and learning, human and social wellbeing, transparency, fairness, accountability, and privacy, security and safety. Education ministers endorsed the review in June 2025. The framework helps institutions develop practices rather than setting a single universal product approval. [91]

Cross-border portability has limits

UNESCO's competency resources help define what students and educators should know; England's standards help ask whether a product meets the needs of a specific learner population; Australia's framework offers school governance principles. These are not interchangeable. Keep the educational objective, practical safeguards, legally binding local requirements and voluntary design principles separately in any procurement checklist. [76] [77]

What a common checklist can ask

Across jurisdictions, an institution can request intended use by grade, evidence in comparable classrooms, age-appropriate interfaces, limits for secondary data uses, human redress, accessible alternatives, and a documented process when product design changes. Validate jurisdiction-specific rules at implementation. Translate framework concepts into tests rather than assessing compliance by the mere appearance of words like safety or fairness in a vendor presentation.

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EDUCATION AND ENTRY PATHWAYS

Design a school pilot that can be stopped

Compare with the best feasible alternative

Protect the baseline

Set review dates

Pick a narrow classroom problem

State the objective before choosing the tool: improve algebra explanations, reduce time spent formatting a worksheet, or provide accessible feedback to students who currently lack it. Define independent achievement, time, quality and safety measures. Identify whether the intervention is teacher-facing or learner-facing; the consent, oversight, data and testing burden may differ substantially. [69] [89]

Balance benefits and burdens

Predefine local decision rules and the control or comparison practice. Include no-AI baseline tasks, delayed tests and notes about age, accommodations and actual usage. Track tool cost, review time, training, accessibility issues, corrective work, classroom displacement and disciplinary disputes. Use comparable denominators and don't assign implementation failures to the learner.

Verify failure modes before wider exposure

Test with simulated inputs before asking students to submit work. Ask whether the tutor gives answers too early, fabricates a source, mishandles an accessibility request, or wanders beyond the allowed topic. Establish a staffed escalation path and a method to disable the feature promptly; a pilot that cannot be stopped is an operational dependency, not merely an experiment. Keep students' welfare and work available through the fallback method.

Review evidence not product enthusiasm

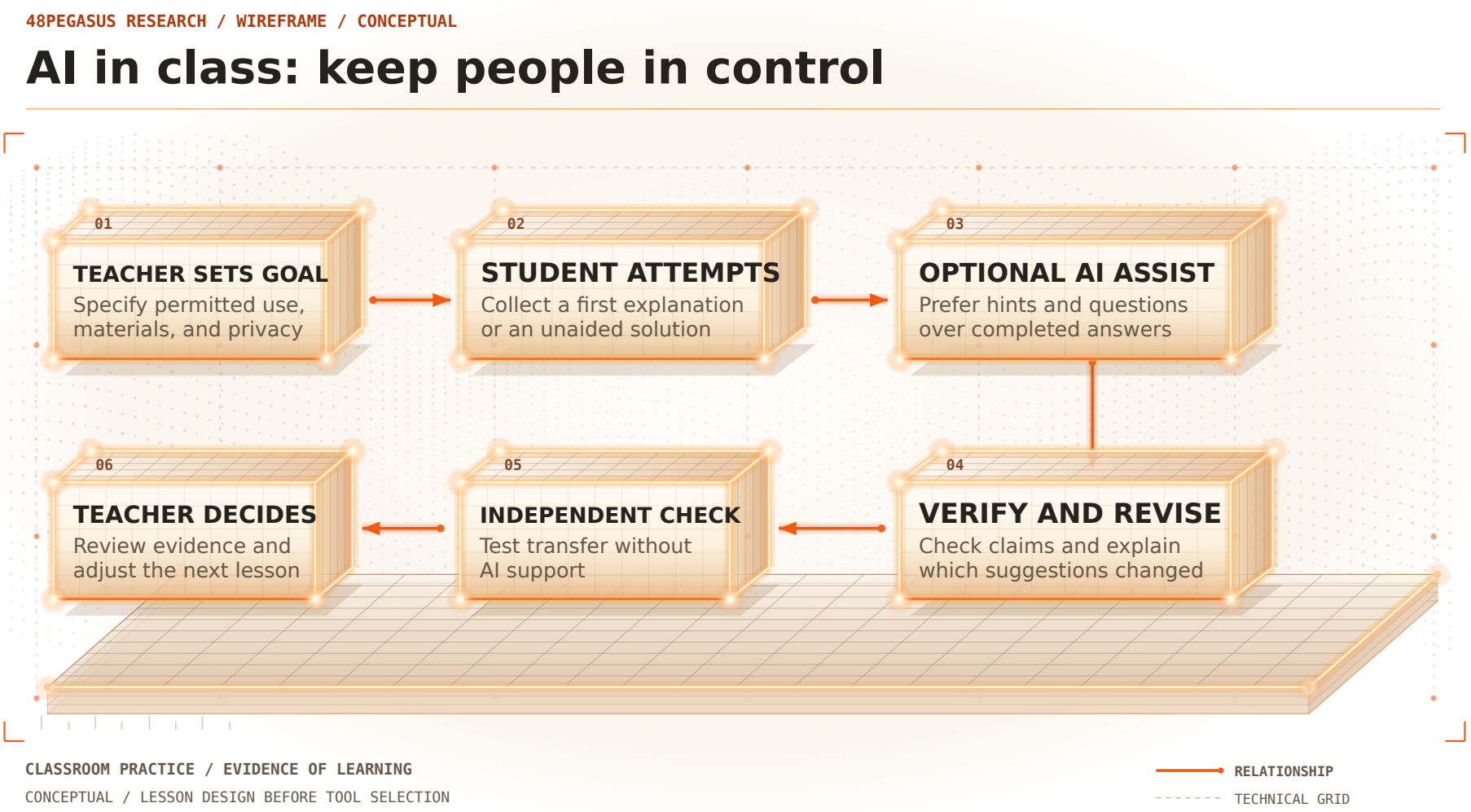
Give decision-makers a short report showing assignment rules, participant groups, full costs, tradeoffs and adverse events. Separate actual service use from favorable opinions. Request review by teaching staff and relevant privacy and accessibility specialists, and a public-facing summary of what changes. If evidence is inconsistent, limit the rollout and replicate before replacing a proven teaching method. [69] [89]

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VISUAL EVIDENCE

Exhibit 12 AI in class: keep people in control



This proposed sequence puts teachers in charge of the objective and assessment. Student work and independent transfer checks help distinguish learning from AI-assisted task completion. Use approved tools and applicable student-data safeguards.

48PEGASUS Research conceptual exhibit. Not empirical data.

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EDUCATION AND ENTRY PATHWAYS

Adult learning and job transitions need different measures

Reskilling

Participation constraints

Employment is a downstream measure

Start with the worker's actual transition

Someone facing changed tasks in an existing job needs refreshed domain practice and feedback, while a displaced worker needs access to paid work, income stability and help demonstrating skills to new employers. A common tool-usage badge is not a sufficient response to either. Assess foundational literacy, numeracy and problem solving separately from product orientation; people may need support in one dimension and already perform strongly in another. [79]

Reduce opportunity costs

Offer accessible instruction schedule options, paid learning time when feasible, and reasonable device access. In delivery roles, focus on supervised verification and handoffs rather than asking workers to generate polished text they will not be paid to use. Training is most credible when tied to tasks for which employers need verified competence.

Measure outcomes over enough time

Record who was eligible, enrolled, completed and was placed or promoted; document paid hours, wages and job quality before and after. A worker may complete training and still lack an opening in the relevant region. Measure six- and twelve-month outcomes where feasible and distinguish program selection effects from causal impacts. Payment and mentorship can be tracked directly for programs modeled on apprenticeship. [80]

Preserve options across employers

Incentivize portable evidence and practical experience, not dependence on one brand or account. Have workers verify outputs against records, explain choices to supervisors, and practice using a fallback when tools fail. Include non-AI routes for situations where privacy or safety precludes delegation. Skill metrics should tell people what they can do independently and under supervision; employment metrics should tell them where that ability translates into a real opportunity.

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EDUCATION AND ENTRY PATHWAYS

A school-to-work evidence dashboard

Suggested operating model

Use measure-specific denominators

Audit failure and benefit

Learning and access

A useful dashboard reports attendance and participation, assistive-versus-substitutive use, reach among students needing extra support, unaided skill, delayed transfer, and valid gains for learners otherwise lacking access. Show each metric's definition, timeframe and population. Put no-use results on the same dashboard as use results, but do not equate nonuse with a deficit. Higher participation can coexist with poorer independent outcomes. [64] [68]

Time and capacity

For educators, report preparation time net of verification; material quality; instructional contact; incident response burden; and tool spending. Count time actually reallocated, not just perceived savings. For student transitions, track real paid learning placements, completed mentorship, attainment of transferable competence, and subsequent job outcomes. [66] [67] [80]

Tradeoffs and distribution

Display privacy incidents, access failures, unresolved appeals, and opportunity gaps with suitable protection for small groups. Highlight gaps rather than smoothing them into averages. Do not reward institutions simply for using a product more often. Protect valid accommodations and allow students, workers and teachers to share practical failures without fear of punitive review.

Review the policy periodically

Identify what data the leadership team is allowed to collect, who can review it, and which thresholds trigger a redesign, halt or independent review. Reevaluate after major changes in vendor, model, task mix or student population. Keep a plain-language record that spells out what was measured and what did not follow from those measurements. The decision is not whether AI should exist in schools. It is whether a defined use produces enough learning or access to justify its costs and risks. [69]

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CONCENTRATION AND DISTRIBUTION

AI market power has more than one layer

Market boundary

Separate input suppliers from model developers, application vendors and employers.

Map the layers first

Specialized chips, advanced memory, foundry capacity, electricity, cloud infrastructure, models and applications are inputs and products at different layers. A subscription bought by a clinic is not a unit of accelerator capacity, and the market share of a cloud provider is not the share of workers employed by companies on that cloud. Applying one concentration figure across the stack obscures who can exercise control, who can avoid it and what a remedy might change. [92] [93]

At each layer identify suppliers, paying customers, capacity constraints, how contracts allocate access and how quickly buyers can switch. Include bottlenecks in integration, such as identity, data access, application defaults and evaluation pipelines. Switching can be technically possible yet commercially unattractive.

Separate evidence from mechanism

Upstream concentration can coexist with strong downstream price competition. A handful of providers can supply several competing services; many front-end brands can also depend on the same vulnerable input. Neither count alone answers whether customers have effective alternatives. Diversification should be tested against the specific workload, compliance controls and service-level capacity needed, not the number of entries in a catalog.

Document the exposure in one chain: supply constraint or contract → procurement conditions → firm access or cost → task deployment → staffing and distribution. Each arrow is a hypothesis requiring evidence. Treat direct pricing, availability and switching data as evidence of procurement frictions, not of a specific loss of jobs. The remainder of this chapter follows the chain from access to distribution, without assuming all links move in the same direction.

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CONCENTRATION AND DISTRIBUTION

Cloud partnerships combine capital and distribution

Not an adjudication

The FTC staff study analyzed arrangements and possible effects; it did not establish a violation.

Why the bundle matters

In January 2025 the FTC released a section 6(b) staff report examining partnerships involving [*REDACTED*] and [*REDACTED*] and [*REDACTED*] and [*REDACTED*] with [*REDACTED*]. The report discusses investment, revenue sharing, consultation and exclusivity provisions, cloud spending commitments and access to sensitive information; arrangements varied. Under some structures, a share of the investment can flow back to the provider through cloud purchasing. The headline investment is thus not a simple measure of cash available for unrelated costs or of a provider's market share. [92]

Such relationships may finance capacity and reduce risk for both parties. They can also raise entry or switching barriers if competitors on either side cannot obtain comparable inputs or deploy on alternative infrastructure.

Contract terms are vintage-specific

The FTC snapshot largely reflects information available in 2024, with public updates through early 2025. It should not be recycled as a current list of exclusivity terms. In April 2026 [*REDACTED*] announced that [*REDACTED*] remained its primary cloud partner but that [*REDACTED*] could serve products across cloud providers and [*REDACTED*]'s intellectual property license became non-exclusive; the disclosed capped [*REDACTED*]-to-[*REDACTED*] revenue share was described as continuing through 2030. In October, [*REDACTED*] announced planned access through [*REDACTED*]'s [*REDACTED*], explicitly reiterating the primary-cloud relationship with [*REDACTED*]. These company announcements are not independently verified usage, exit capacity or a complete contract. [95] [96]

For procurement, separate first-release priority, hosting rights, spend commitments and actual workload distribution. A new route to buy the same model can improve choice without diversifying the underlying model provider.

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CONCENTRATION AND DISTRIBUTION

Switching cost can preserve incumbent advantage

UK evidence

A UK public-cloud infrastructure finding is not a global AI model-market share.

The UK cloud investigation

The Competition and Markets Authority's UK public-cloud infrastructure investigation concluded in July 2025 with adverse competition findings; it recommended that the CMA consider strategic market status investigations involving the largest providers, [REDACTED] and [*REDACTED*]. This concerns a defined UK supply market rather than all computing, all software, or all AI. The evidence on switching includes commercial terms, technical barriers and software licensing; consumer benefits and switching costs may coexist. [93]

In October 2026 the CMA made a provisional strategic market status designation proposal about [*REDACTED*]'s business software ecosystem, not a final decision or a finding of wrongdoing. Its separate cloud engagement covered both [REDACTED] and [*REDACTED*], including identity and access management and workload migration. [94]

Test whether customers can leave

Measure what a switch would require: export data and access policy; rebuild or port integrations; rerun benchmark and red-team suites; recertify controls; replace model-specific tuning; and operate an overlap period. Count lost volume discounts and transfer charges, including any restrictions associated with commitments. Switching complexity depends on workload; a disposable text drafting tool differs from a regulated workflow with embedded case routing and audit requirements.

A proof of portability should reroute one representative workflow and meet its quality, latency and audit constraints using independent resources. Identify shared failure points, rather than equating several contracts with redundancy. Procurement can reward genuine substitutability while still allowing legitimate bundled discounts. A policy evaluation should then look for changed prices, provider entry or switching time and adverse effects, not just a public commitment that more choice exists.

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CONCENTRATION AND DISTRIBUTION

Large firms report more AI use

U.S. Census BTOS

May 3, 2026 period endpoint; reported use in any business function during the past two weeks.

Distinguish two denominators

Census’s BTOS analysis found that national firm use was 19.8% in the period ending May 3, 2026. In that same analysis, about 37% of firms with 250 or more employees reported use and 32% of firms with 100–249 employees did so; the corresponding percentage for firms of four employees or fewer was below 20%. The question covered any business function, not only production of goods and services. Before November 2025 the wording was narrower, making a direct long-run splice inappropriate. [97] [99]

A separate revised analysis of the November 2025–January 2026 supplement found 18% firm-weighted use and 32% employment-weighted use. Weighting firms by the number of people they employ puts more weight on larger firms. The latter measures employment at firms reporting use, not the percentage of people personally using AI or an adoption jump over time. [98]

Why the difference matters

Larger organizations may be able to amortize information security, legal review, integration and training across more workers. Smaller organizations may move faster on a narrow workflow using commercial software but lack staff to verify results or renegotiate a problematic contract. These are plausible mechanisms; size comparisons are descriptive and reflect industry mix and organization design too.

Compare adoption, intensity, duration and outcomes. A small company using AI daily across all billable work is not less reliant than a large company testing a drafting tool in one unit simply because the latter employs more people. Report who has access, where deployment is authorized and how much workflow volume is touched rather than treating organizational adoption as a sufficient statistic.

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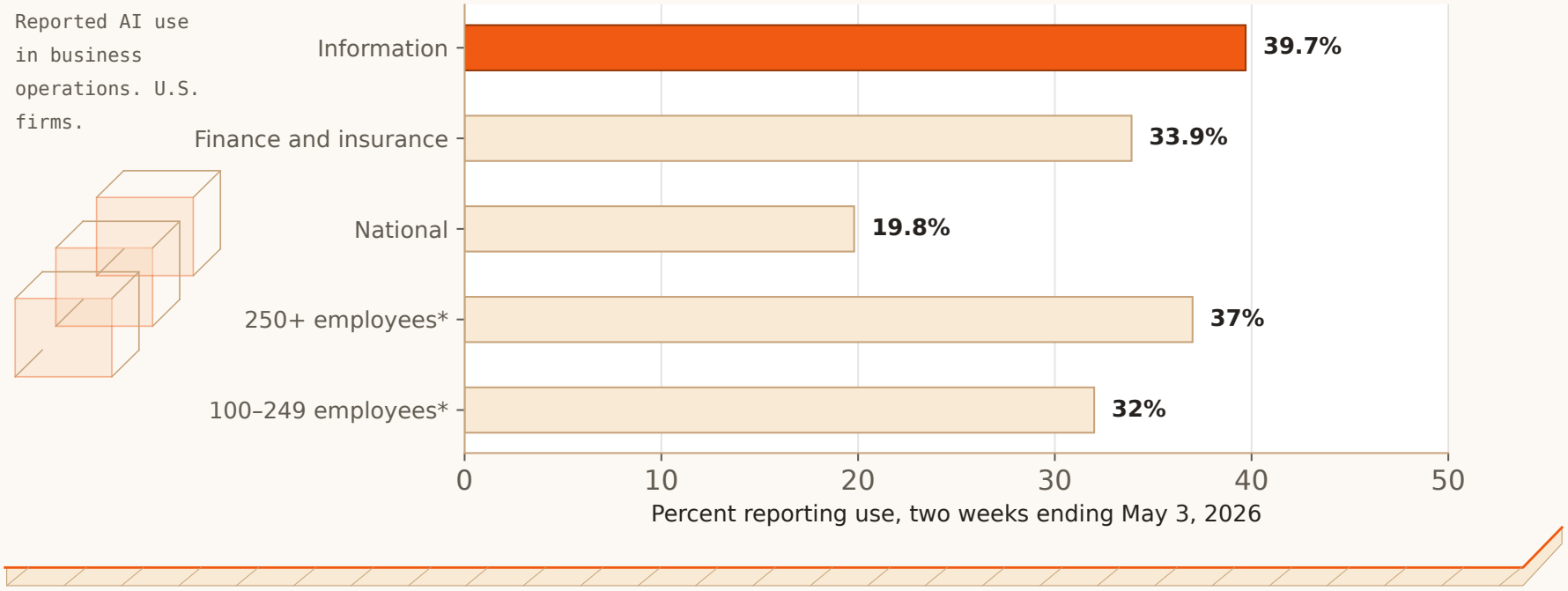
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VISUAL EVIDENCE

Exhibit 13 Business adoption varied by sector and firm size

48PEGASUS RESEARCH / EVIDENCE EXHIBIT

Business adoption varied by sector and firm size



Census BTOS reports the share of businesses reporting use in the prior two weeks. Starred groups are firm-size categories across industries, not sectors. The categories overlap. Values are not the share of workers using AI, a productivity measure, or a measure of market power.

U.S. Census Bureau, Business Trends and Outlook Survey: primary source

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CONCENTRATION AND DISTRIBUTION

Sector averages hide how workflows change

U.S. Census BTOS

Percentages refer to surveyed businesses; individual workers and tasks have different denominators.

Look inside the industry

For the period ending May 3, 2026, Census reported 39.7% AI use in Information and 33.9% in Finance and Insurance, both above the 19.8% national rate. The comparisons do not show the probability of AI-caused displacement in either industry. Each includes different occupations, and firms adopting AI may have used it for unrelated work, including marketing or internal document processing. [97]

In the separate winter supplement, 57% of adopting firms used AI in three or fewer business functions. The leading reported functions included sales and marketing (52%), strategy and business development (45%) and IT (41%). Respondents could select more than one function, so these shares are not slices of an exclusive pie. [98]

Combinations, not averages, drive impact

An insurer may use office AI to draft correspondence yet require a qualified person to decide claims. A manufacturer may use AI in logistics without changing the work of every machinist. A customer-service team may automate routine tickets but raise staffing needs for escalations. These are illustrative deployment pathways, not evidence of observed changes in those sectors.

To compare workplaces, retain the job family, baseline workload, review requirements, unit of output and actual deployment date. Distinguish depth from reach: a system used by hundreds of people for occasional drafts differs from one that does most first-pass application review. Follow both managerial and frontline work. Adoption surveys identify sectors for targeted follow-up, not a ranking of careers to abandon.

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CONCENTRATION AND DISTRIBUTION

The value from time savings has many claimants

Distribution lens

Measure verified incremental gains, then trace who receives them.

Gross capacity is not distributable gain

An AI tool can shorten drafting but increase review, corrections, security oversight or customer disputes. Measure output that passes the applicable quality standard and count all time spent to produce it. Deduct recurring technology and operating costs, remediation and transition expense before inferring a financial surplus. Changes in case mix can make output look faster without improving the work; preserve the distribution of case difficulty and compare like-for-like. [107]

The downstream value can accrue to workers as wages, bonus, paid training or reduced work time; to customers as lower prices or faster service; to the firm as margin or reinvestment; or upstream as license and cloud payments. Added revenue does not by itself identify any party’s share of net surplus.

Track pathways explicitly

A fixed-fee professional service can retain a time saving as margin while an hourly billing model might see revenue fall at unchanged prices and demand. A budget-limited public agency might serve more cases without cutting headcount. A contractor paid per task could lose assignments even as directly employed staff gain time. These are illustrative allocations under different contracts.

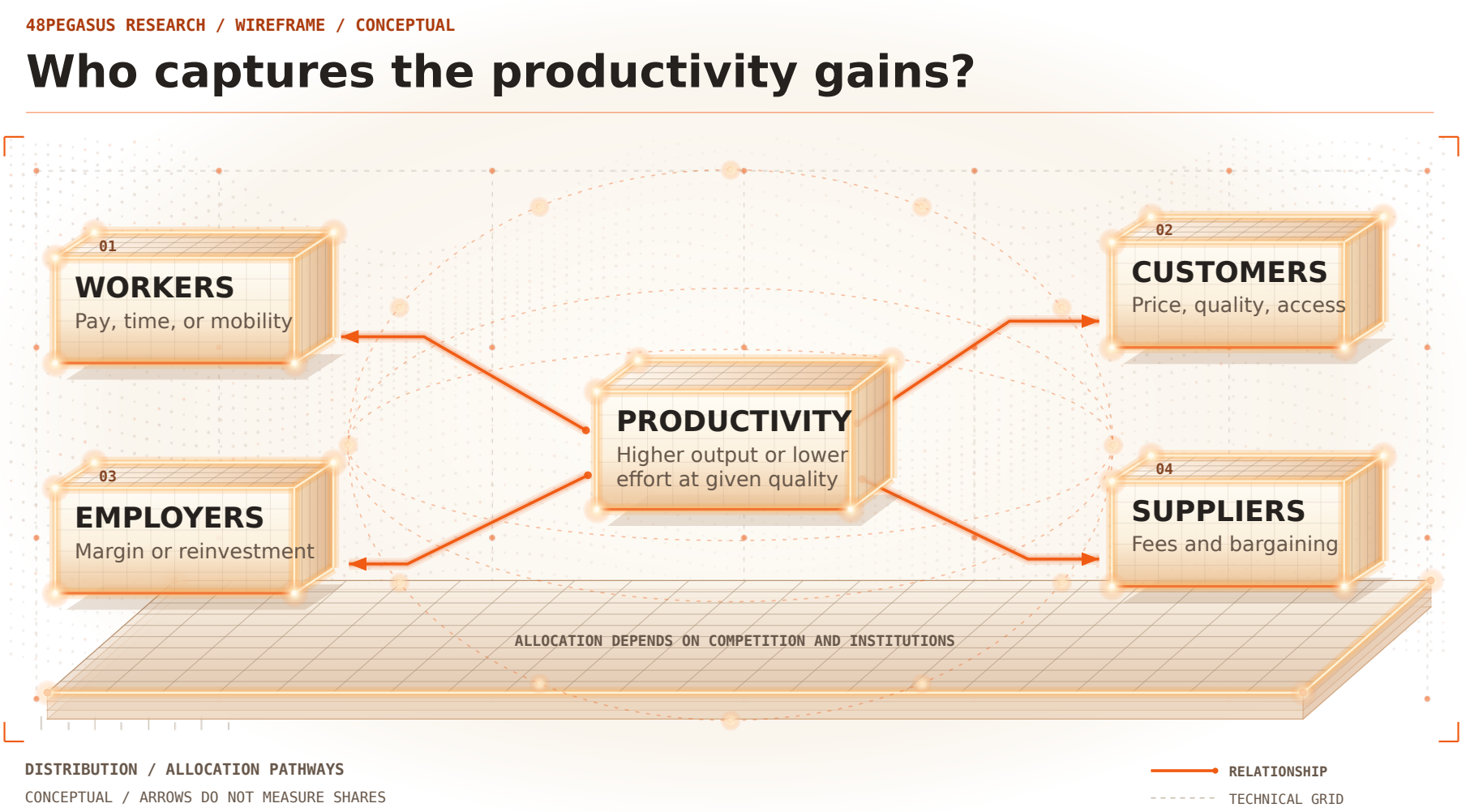
Use a ledger with separately denominated rows for quality, output, labor hours, labor compensation, vendor costs, prices and working conditions. Avoid adding customer welfare, wages and revenue into a single monetary gain unless a formal accounting framework prevents double counting. Compare both the near-term pilot and steady-state operations. A product can improve average throughput yet transfer pressure, costs or risk to the least powerful part of the workflow.

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VISUAL EVIDENCE

Exhibit 14 Who captures the productivity gains?



Higher output or lower effort does not establish who benefits. Competitive conditions, contracts, worker voice, and business strategy influence how gains reach workers, customers, firms, or suppliers. The diagram assigns no shares.

48PEGASUS Research conceptual exhibit. Not empirical data.

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CONCENTRATION AND DISTRIBUTION

Labor share measures compensation, not individual pay

BLS nonfarm business

November 5, 2026 release: Q3 labor share 53.0%, preliminary and subject to revision.

What the national ratio says

The labor share is the portion of covered economic output that accrues as compensation to labor, rather than the median worker's wage or the fraction of workers who gained a raise. The Bureau of Labor Statistics reported a 53.0% third-quarter 2026 share in its November preliminary release, describing it as the lowest in its revised series beginning in 1947. That release incorporated national-accounts revisions; the earlier September Q2 publication showed 52.8% at the time. Do not combine old and revised figures into a single unannotated line or infer a contradictory ranking. [100] [101]

In the November release, third-quarter productivity grew at an annualized 3.6% quarter-to-quarter while real hourly compensation grew at an annualized 1.1%. Neither rate is an AI-specific estimate. Different price measures and compensation concepts matter when comparing productivity and pay. [100]

What a distribution analysis needs

Sector composition, prices, labor costs, capital deepening and shifts in the measurement of output can change the aggregate ratio. To investigate a technology contribution, add firm and sector adoption dates and control for plausible contemporaneous shifts in demand, investment and labor composition. National productivity and labor-share series alone do not isolate those effects.

Track levels, growth and the distribution separately. A worker can receive higher nominal pay while a firm's output grows faster and its labor share falls. Average compensation can rise even if a typical worker does not gain. Use household income, matched wage records or compensation distributions for household and worker claims, and use the nonfarm business accounts for claims about the covered aggregate.

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CONCENTRATION AND DISTRIBUTION

Asset ownership is a separate distribution channel

Federal Reserve DFA

2026 Q2 selected asset category: aggregate holdings by wealth group, not AI-only ownership.

Capital can transmit gains unequally

As of 2026 Q2, the Federal Reserve's Distributional Financial Accounts reported corporate-equity and mutual-fund holdings of $16.15 trillion for the top 0.1% of households by wealth, $16.74 trillion for the next 0.9%, $24.01 trillion for the 90th–99th percentiles, $7.36 trillion for the 50th–90th percentiles and $0.37 trillion for the bottom half. The groups are not equal in population and other asset categories, including pension entitlements, are shown separately. The table is not a measure of AI-company ownership, total wealth or realized investment gains. [102]

This baseline illustrates why a distributional analysis can change when adding capital income to wages. Asset appreciation can accrue to existing ownership even when the people who lost work have little exposure to the same assets.

Do not turn a channel into a forecast

An IMF working paper models scenarios in which automation can compress wages at the top in some settings while increased capital returns widen wealth inequality. The result depends on assumptions about who owns capital, which tasks can be substituted, and the model's counterfactual; it is not an observed effect of today's systems. [104]

Report asset exposure and labor outcomes as separate series. Do not infer which shareholders benefit from individual deployments without firm cash flow, ownership and valuation evidence. Positive gains accruing through diversified retirement accounts can coexist with uneven direct equity wealth, missed employment opportunities and shifts in business ownership. Policies intended to share benefits should specify the mechanism, the eligible group and when returns would actually become available.

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CONCENTRATION AND DISTRIBUTION

Worker bargaining determines how savings are allocated

U.S. wage and salary workers

2025 union membership 10.0%; public/private and occupational differences matter.

Bargaining power is more than union density

BLS estimated a 10.0% union membership rate for U.S. wage and salary workers in 2025, with 14.7 million members. The 2025 CPS annual average excludes October because the survey was not conducted that month; comparisons with full-year averages require caution. Membership is one institutional measure, not a comprehensive index of bargaining power and not a prediction of an AI-related wage effect. [105]

Workers' leverage also depends on meaningful outside options, local hiring competition, the portability of credentials, unemployment protection, information, and formal or informal channels for input. The same technology can distribute gains differently when deployment rules are negotiable or when pay and scheduling decisions remain opaque.

Make consultation consequential

Before rollout, identify which decisions can affect pay, schedules, performance ratings and discipline. Where appropriate, document notice, input from workers and representatives, a named decision owner, appeals and a process for correcting source data. Invite feedback from contingent workers and junior staff who may not be represented by aggregate employee surveys. [107]

Compare three governance choices: identical wage and work expectations, revised productivity targets alone, and shared gains through compensation, paid training, time or redesign of work. For each, test changes in job quality, output and turnover. Avoid reading the descriptive wage difference between union and nonunion workers as the causal effect of membership; occupations, employer types and industries vary. A mechanism is only meaningful if workers can use it without fear of reprisal and the organization acts on substantiated feedback.

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CONCENTRATION AND DISTRIBUTION

Algorithmic management can change work without cutting jobs

Worker impact

Scheduling, monitoring and evaluation deserve separate controls.

Distinguish assistance from authority

The OECD’s 2025 employer study covered more than 6,000 firms across six countries. Managers reported potential benefits in decision processes as well as concerns about accountability, explainability and worker health. The study is employer-reported and covers algorithmic management tools, some of which need not use generative AI. It cannot establish that a specific form of monitoring improves welfare or causes job losses. [106]

A schedule suggestion with a human authorized to override it has a different impact from a system that reduces shifts or pay without meaningful review. Retaining headcount does not rule out greater work intensity, unreliable hours, slower advancement or less discretion. Conversely, automation of repetitive clerical coordination can make shifts easier to plan.

Control consequential changes

Measure disputes, erroneous evaluations, involuntary schedule changes and successful appeals in comparable units with denominators and time windows. Preserve the workflow rule and system version behind decisions; separate audit logging from expanded surveillance. Avoid metrics that reward supervisors for fewer appeals if workers may instead be deterred from reporting issues. [107]

Define a decision hierarchy: routine assistance, recommendations subject to documented review, and decisions that cannot be delegated to a system. Test whether reviewers can access and understand source evidence before accepting a recommendation. Include workers in post-launch review, particularly the groups most likely to be affected by sparse histories, atypical schedules or data quality issues. Report not only whether the tool works but which people gain discretion and which lose it.

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CONCENTRATION AND DISTRIBUTION

Employer concentration is not platform concentration

Labor-market competition

Define the real set of employers competing for a worker’s skills and availability.

Look at practical alternatives

Employer market power concerns the ability to set worse pay, benefits or working conditions without losing enough workers to make the change unprofitable. Relevance depends on occupation and skills, commuting or remote options, scheduling constraints, licensing and hiring practices. A cloud market share cannot establish concentration among local buyers of a worker’s labor. An industry’s local employment share also does not tell us how many employers compete for its workers.

The U.S. merger agencies’ Guideline 10 describes how they examine mergers between competing buyers, including employers, and what reduced competition could mean for wages and conditions. These are agency analytical guidelines; applying them to a particular transaction requires facts and qualified assessment. [108]

Follow hiring behavior and terms

Examine where workers actually go when they leave, which firms recruit from the same pool, whether applications convert into credible offers, and the costs and duration of a transition. Look at pay bands, benefits, contract type and hours, rather than wages alone. The employer of record may differ from the firm controlling work if agencies or platform intermediaries are involved.

A model-assisted hiring platform can reduce search frictions if it helps compare a broader set of jobs, or reinforce dependencies when it steers candidates into narrow channels. Verify both mechanisms with outcomes and testing. Distinguish monopoly power among upstream vendors from employer buyer power in local labor markets so that competition and workforce remedies are aimed at the correct decision makers.

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CONCENTRATION AND DISTRIBUTION

Places with similar exposure can adjust differently

Regional dashboard

Pair industry composition with hiring alternatives, wages and practical access.

Build an industry baseline

BLS Quarterly Census of Employment and Wages data provide establishment counts, employment and wages by industry and geography for covered workers. A location quotient compares an industry's share of local employment with its share in a reference area. A share above the reference area flags specialization, not an AI adoption rate, the probability of displacement, or the concentration of individual employers. More detailed data may be suppressed to protect confidentiality. [109]

Start with the commuting labor market and nearby job alternatives, not a state average. Pair industry exposure with occupation mix, actual implementation evidence, and typical routes into alternative work. Compare working-age access to connectivity, training schedules and transport so program seats are not mistaken for useful options.

Distinguish construction from durable capacity

A proposed data center may create construction work and a smaller continuing operations workforce, but neither investment announcements nor electrical capacity indicate net employment in a community. Require separate local counts for contractors, permanent positions, project phase and place of residence before describing local gains. Compare public incentives, resource needs and alternative uses under transparent assumptions.

Regional development can broaden capabilities through employers, universities and workforce providers. EDA announced in July 2026 intent to award $169 million across six Tech Hubs; those are selection or implementation actions, not a demonstrated employment impact and not exclusively AI funding. Track disbursement, participation, durable jobs and earnings over time. A region that can host a building is not automatically positioned to retain high-value functions or workers. [110]

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CONCENTRATION AND DISTRIBUTION

Public compute can widen access, not guarantee parity

Resource policy

Measure usable capacity, queue delays and institutions able to complete projects.

Match the shared resource to the barrier

National Science Foundation’s National Artificial Intelligence Research Resource connects research and education users with resources such as computing, datasets, software, expertise and models. Shared access can relax fixed costs for institutions that cannot buy dedicated systems. A grant allocation, however, is not the same as completed research, a competitive commercial platform, a job placement or proof of equal access. [111]

Open weights can widen the ability to run or adapt models without a hosted API, but execution, storage, governance and technical support still cost money. License terms and portability differ. An organization may also depend on one supplier for critical integrations even when it can download a model separately.

Design for actual use

Set goals for participation by resource-constrained institutions, completion, and usable results. Publish units and scope for capacity: training, inference, reserved allocations and actual runtime are not interchangeable. Count waiting time and projects that could not proceed, not only grants awarded. Combine allocations with onboarding support, data stewardship and verification to avoid excluding organizations without existing technical teams.

Evaluate additionality: which projects would otherwise have stalled, run at lower scale, or used an alternative? A recipient survey alone cannot fully answer it; compare similar unfunded applicants where fair and feasible and guard against collecting sensitive records unnecessarily. Seek enough provider diversity to avoid single-supplier dependence, while preserving clear controls for safety, data access, reproducibility and budget.

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CONCENTRATION AND DISTRIBUTION

Competition remedies and transition support solve different problems

Policy design

Identify the mechanism before choosing the remedy.

Two complementary tracks

Where a bottleneck is weak cloud or software competition, access and switching remedies could include workable data export, interoperability, transparency on licensing, and proportional scrutiny of exclusionary conduct. Public procurement can require tested migration and access to audit logs while permitting lawful efficiency benefits. The UK CMA's ongoing cloud engagement and provisional business software proceedings illustrate different policy channels rather than a one-size-fits-all response. [94]

Where the barrier is a shrinking set of credible local employers, training alone does not create an opening. Conversely, a more competitive infrastructure market does not itself give a displaced worker income replacement, career advice, transport or time to retrain. Labor competition needs its own evidence and response. [108]

Connect workers before the separation

The federal WIOA Adult and Dislocated Worker programs support eligible employment and training services, with Rapid Response working with employers and worker representatives to limit disruption as appropriate. These are service channels subject to eligibility and implementation constraints, not evidence that every affected person will receive aid or that AI-specific displacement will be covered automatically. [112] [113]

A practical portfolio pairs early notice and placement with occupation-specific training, earnings and retention measures, and accessible supports. Measure time to reemployment, whether earnings and benefits recover, and how results differ for workers who do not complete training. Name which organization owns each outcome and what funding would sustain it. Policy should address short-run costs without promising that assistance reverses every loss.

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CONCENTRATION AND DISTRIBUTION

An executive scorecard should track outcomes by group

Suggested metrics

Define time, population, baseline and change before rollout.

Measure reach and concentration separately

At the vendor layer, report shares of spending and workload by provider after separating model, cloud and application. Record dependency on the same underlying host and the practical tested time to switch. At the business layer, report AI use by function and workflow volume, not the count of purchased seats. At the worker layer, measure task mix, hires, separations, hours, pay and reassignments. At the community layer, compare employer diversity and post-transition earnings. [98] [109]

For each measure record the denominator and source. A spend share uses invoices; workflow share uses reviewed units of work; employment outcomes need a stable cohort and explicit exclusions. Observe differing timelines instead of forcing all metrics into a month-end percentage.

Decisions need triggers and counterfactuals

Set governance triggers before deployment: an inability to switch the most critical workflow, quality erosion after escalation, transfers into lower-paid roles, or costs shifted to contractors. Predefine meaningful outcomes and fair comparisons; track changes against a credible baseline before attributing them to AI. A phased rollout can help separate technology effects from demand shifts if the chosen groups are comparable and policies are applied fairly.

Revisit thresholds under new circumstances but keep a log so the pilot is not declared successful retroactively. Report subgroup results only where sample size and confidentiality permit. Distinguish organization-specific evidence from national trends or provider claims. Assign owners for implementation, worker response, post-launch monitoring and the independent decision to pause or narrow the rollout.

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CONCENTRATION AND DISTRIBUTION

Benefits can diffuse while returns concentrate

Conclusion

Access, work outcomes and returns to ownership must remain separate in public debate.

What can coexist

AI tools can become cheaper or more widely available while a small set of firms controls critical infrastructure. Productivity can improve without broadly higher wages. Local hiring can weaken even if national employment grows. Higher exposure in an occupation can produce either assistance or substitution, and scenario studies depend on assumptions about complementarity, ownership and demand. None of these potential combinations follows automatically from a survey response. [92] [103] [104]

The democratic question is therefore not merely whether the economy benefits in aggregate. It is which groups receive useful services, better work or investment returns, which groups bear transition costs, and which decision makers can alter those distributions.

Priority actions

First, record the specific dependency and test real alternatives before treating a multivendor catalog as open competition. Second, audit job transitions and compensation, not merely payroll snapshots or seat usage. Third, make distribution explicit in budgets and contracts: training time, worker notice, appeals, pricing and reinvestment are design choices. Fourth, support places with little institutional capacity, measuring actual participation and earnings rather than only announcements. [94] [112] [110]

Use two simultaneous tests for public claims. For a competition claim, identify the product and geographic market, time period and mechanism. For a distribution claim, identify the people and assets, numerator and denominator, and baseline. If those boundaries cannot be named, show the uncertainty rather than a headline that presents potential exposure as observed displacement or concentrated wealth as a measured gain from AI.

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IMPLEMENTATION AND RECOMMENDATIONS

A staged employer pilot

FIELD NOTE

The initial decision is whether to test a workflow under human control, not whether to reduce staffing.

Before deployment

Define a business task, the quality standard and what people normally do. Measure at least a representative pre-pilot period covering demand and staffing variation. Define tasks that require employee discretion or final approval. Include an employee-designed feedback and appeal process. Establish an access policy, avoid unnecessary surveillance, and document who can intervene if quality or workload deteriorates. [14]

If possible, randomize the pilot at an operationally meaningful unit or stagger rollout while tracking comparable teams. Prespecify both production and worker outcomes. Benchmarks might include accepted output per paid hour, serious defects, time spent verifying, customer outcomes, coaching time, and job-quality feedback.

After deployment

Report short-run gains and interpret them separately from headcount. Ask whether teams handled additional demand, saved time, or shifted labor to another team. Check outcomes by tenure and role with appropriate privacy thresholds. Monitor quality and employment after the novelty effect fades. A metric improvement over a few weeks does not justify a permanent staffing assumption. [10] [3]

Publish a summary for affected employees: what changed, what the pilot proved, and what was not measured. Commit to an owner and date for the next review. Keep a fallback if error or rework rises. Make hiring or role changes through a separate decision process with measurable alternatives considered.

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IMPLEMENTATION AND RECOMMENDATIONS

A dashboard for transitions and job quality

FIELD NOTE

Every indicator needs a date, denominator, owner, release schedule and caveat.

Employment measures

Track applications and hires per advertised level, accepted offers, layoffs and voluntary exits separately, average paid hours, occupational switches and movement from contract to regular roles. Compare like cohorts and report revisions. Correlate with dated AI rollout records and independent demand measures without automatically claiming attribution. Include vacancies closed without hire and record whether the vacancy was budgeted, posted or speculative. [6] [3]

Measure advancement from entry to independent work and promotion. Worker feedback should include schedule, perceived autonomy, mentoring and workload, not just satisfaction with the tool. Use aggregated reporting where small groups could be identifiable.

Decision logic

Keep a distinction between leading indicators, such as falling junior postings, and realized outcomes, such as sustained decline in hires and wages. Document whether a signal comes from a survey, official payroll, study sample or internal operations. Use at least one demand-side benchmark before interpreting a change as technology-related.

Maintain an exception log for incomplete records, occupation-code revisions and changes in reporting form. Tag affected periods and avoid comparing across incompatible versions. Assign thresholds to actions such as targeted diagnostics or internal review, not automatic job actions. Review negative results as well as favorable outcomes, and disclose unresolved gaps.

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IMPLEMENTATION AND RECOMMENDATIONS

Protect the entry ladder when tasks change

FIELD NOTE

Competence must be demonstrated, not inferred from AI-assisted output.

Design the replacement practice

Identify the learning function of each removed task. Was the novice learning to verify evidence, identify anomalies, communicate professionally or handle judgment calls? Build paid assignments that preserve that purpose. Use marked examples, supervised live practice and progressively reduced help. Require alternatives if the tool is unavailable or unreliable. [12] [11]

Establish a human reviewer with time reserved for feedback. Separate everyday administrative use from high-consequence decisions. Do not make a model the final arbiter of advancement, especially when the evaluation is poorly validated for the role or cohort.

Measure progression over time

Use practical review, independent demonstrations and customer or supervisor quality checks. Track time to independent work, proportion reaching the next level, retention and equitable access to meaningful assignments. People who have less prior access to the tools may need instruction before assessments; directly test the competence needed for the job, not their ability to navigate a vendor interface.

When automated assistance improves immediate performance, verify capability persists when it is removed. If the assisted condition beats unaided work but competence falls, treat it as a workflow win and a training risk, not a learning outcome. Reinvest saved review or administrative time in coaching if evidence supports it. [9]

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IMPLEMENTATION AND RECOMMENDATIONS

Education policy should specify the assessment

FIELD NOTE

Practice, grading and independent demonstration are distinct settings.

Set clear permission by task

For each assignment say whether assistance is allowed, what disclosure is required and which work must be done independently. Let students practice how to check sources and explain reasoning, and separately show they can do it without the tool. Use documented learning objectives rather than blanket assumptions about every classroom or age group. Provide a meaningful alternative for students who lack access or cannot use the chosen system. [8] [9]

Teacher-facing tools can be useful for planning or differentiated materials, but educators should review accuracy, bias, reading level, accessibility and factual relevance before classroom use. Avoid exposing identifying student records unnecessarily.

Evaluate both learning and access

Pilot one grade band or subject before scaling. Evaluate assisted task success, independent transfer, delayed retention and accessibility separately. Include educator workload, false allegations, student trust and disparities in access. Verify claims about gains in a sample similar to the local population rather than treating an overseas mathematics experiment as proof for all settings.

Give educators and families clear routes to challenge AI-related decisions. If a tool becomes necessary for a class, establish reliable school access and support. Preserve human oversight for consequential actions and make clear what documentation can and cannot establish about authorship. [14]

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IMPLEMENTATION AND RECOMMENDATIONS

A regional transition response

FIELD NOTE

Credentials without employer demand can shift costs onto workers rather than open a pathway.

Start with a regional diagnosis

Identify local occupations with changed entry hiring, wage pressure or growing demand. Screen for ordinary cycle effects using comparable regions and industry indicators. Invite input from workers, employers, education providers and representatives; then verify claims against administrative and vacancy information. A decrease in job ads is not proof of layoffs, and a site announcement is not proof of employment gains.

Build programs around tasks and realistic jobs. Combine AI literacy with applied occupational competence, documented practice, coaching, and recognition transferable across employers. Consider travel, scheduling, disability access and income barriers. Prioritize paid work-based learning where it fits. [12] [11]

Define success and safeguards

Use agreed indicators such as completion, placement in relevant work, wages, retention and advancement at specified intervals. Define the eligible population and results for participants not reached in follow-up. Include disaggregated results where privacy permits. Specify what additional support is available when training does not lead to suitable work. [13]

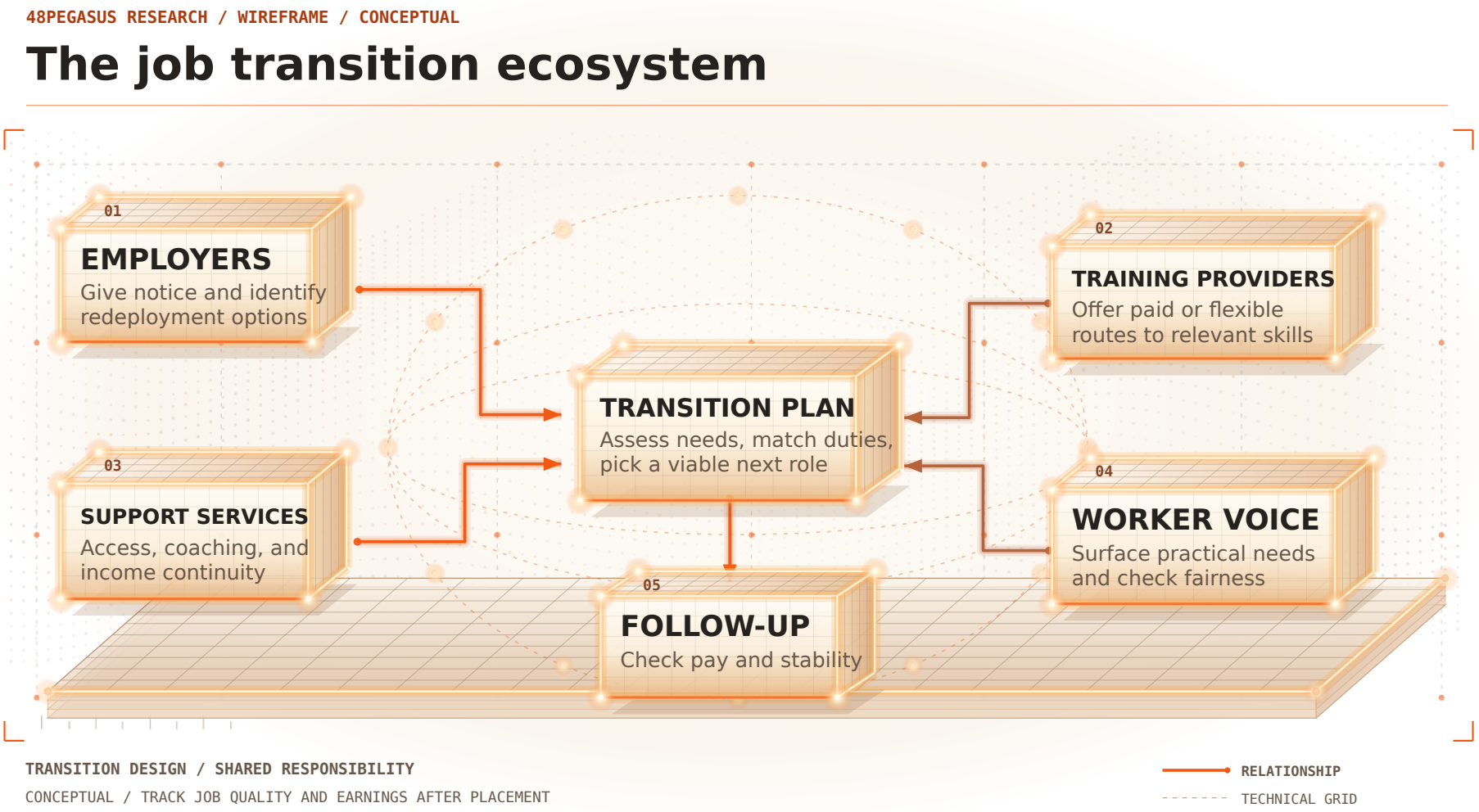
Prefer interventions with a credible link from an observed problem to a measured outcome: apprenticeship slots if entry work has contracted, placement or career navigation when matching is the issue, and locally vetted skills modules if employers can identify transferable competence. Do not promise that training alone creates jobs.

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VISUAL EVIDENCE

Exhibit 15 The job transition ecosystem



Workforce transition can require coordinated employer, education, support, and worker participation. Training completion and placement are milestones, not proof of lasting wage recovery or job quality.

48PEGASUS Research conceptual exhibit. Not empirical data.

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IMPLEMENTATION AND RECOMMENDATIONS

Test who shares in productivity gains

FIELD NOTE

The same throughput gain can accompany higher wages, lower prices, better quality, or higher profits.

Define a value account

Calculate accepted output, prices, costs and paid labor hours before and after a specified intervention. Account for compute, safety review, additional training, corrections, oversight and implementation. Compare how gains appear in wages, worker time, consumer prices, service quality, owner earnings and provider fees. Segment outcomes by role and tenure; averages disguise concentrated burdens.

For a meaningful firm-level analysis, examine comparable teams and alternative changes in product mix or demand. A change in national labor share cannot answer whether one employer's rollout benefited workers. An increase in measured productivity is necessary for some benefit arguments but does not specify distribution. [10] [3]

Governance options

Consider incentive designs that share persistent gains, advance workers or reduce unwanted hours when production remains reliable. Negotiate or consult through appropriate channels and track what workers prefer rather than assuming one form of benefit works for everyone. Beware of short-run output bonuses that reward volume without acceptable quality.

When vendors create a dependency, test model replacement, data portability and contractual exit before relying on them for critical work. Compare quality and cost in realistic workflows, including review and transfer. Treat credible fallback options as a condition for sustained value, not a vendor feature to inspect after adoption.

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IMPLEMENTATION AND RECOMMENDATIONS

Policy choices and their tradeoffs

FIELD NOTE

Match policy to the identified mechanism; no single intervention handles every kind of transition.

Intervene where the evidence points

If the leading problem is access to first jobs, support structured pathways and assess placements. If workers lose hours or earnings, consider existing transition and income supports with qualified policy review. If unusable disclosure or monitoring drives distrust, improve transparency and appeal. If market power restricts choice, study the relevant market, switching costs, obligations and access before inferring competitive harm.

For education, distinguish a national statement, a funding condition, a district rule and an individual classroom standard. Identify agencies and decision owners, then evaluate implementation. Proposed policies should be labeled as proposals until they take effect. [11] [3]

Use phased and measurable commitments

Estimate costs, timing, key risks and who benefits. A program favoring immediate placement can unintentionally steer people into low-progression roles; pair placement with retention and wage measures. Training subsidies may help geographically varied employers but favor firms already able to release staff. Competitive procurement can lower costs but requires attention to accessibility and continuity.

Define decision gates before funding expansion. Show which workers were reached, what changed relative to a defensible comparison, and which alternatives remain. Allow changes and a clear route for public input. Do not infer political salience, effectiveness or causality from concern alone.

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IMPLEMENTATION AND RECOMMENDATIONS

Implementation timetable and review triggers

FIELD NOTE

Illustrative periods: adapt to local evidence, institutional authority and publication lags.

First ninety days

Map current AI tools, roles affected, new rules, labor indicators and local training capacity. Establish a baseline and choose a small number of decision-relevant indicators. Record which statements refer to actual job loss, anticipated substitution or changes in hiring. Appoint owners for workplace, education and community outcomes, and use aggregated information to protect individuals.

Pilot a supported entry role or classroom pathway; measure independent competence, time and quality. Provide notice, an alternative channel and meaningful human review. Expose tradeoffs early so staff can help diagnose whether problems reflect the tool, training, workflow, management or sampling. [14]

At six and twelve months

Review hiring flows, role shifts, wages, hours, defects and progression. If exposed junior hires fall relative to a credible comparison while demand is stable, open a targeted review rather than assuming the cause. If independent performance erodes, redesign classroom safeguards. If gains accrue upstream with little downstream benefit, review supplier exit, diversification and bargaining options.

Publish a bounded account: observed changes, plausible explanations, evidence gaps, and planned follow-up. Be explicit when a hypothesis failed. Continue a credible program or stop a poorly supported one. This creates a record that communities and oversight bodies can interrogate.

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IMPLEMENTATION AND RECOMMENDATIONS

Conclusion and key takeaways

FIELD NOTE

AI may transform work before national numbers show it. The response should be measurable and proportionate.

What the evidence supports

Concern about job availability is broad. In the latest Pew comparison used here, it grew sharply among adults under 30 without making them uniquely pessimistic relative to adults aged 30–64. Labor evidence identifies exposure and credible concerns for entry pathways, but the magnitude and causality of national displacement remain uncertain. The evidence does not support treating public predictions as a measured labor effect. [1] [4] [3]

Productivity and learning gains depend on setting and design. Under some conditions, tools aid novice workers and students. Removing essential learning steps without substituting guided practice can weaken independent skill. [10] [9]

What institutions should do

Preserve first jobs and supervised progression. Monitor labor flows and quality, not just headcount or AI use. Require meaningful human oversight and accessible alternatives when deployment affects schooling or work. Distinguish retained value and distributed benefit from a headline speed metric. Track both upside and costs at the places and occupations where they arise.

Do not wait for a single national number before collecting evidence, but do not make irreversible decisions from emerging signals alone. A sound response will help people develop skill, verify outcomes, contest consequential decisions and move into sustainable employment while allowing useful tools to expand where the evidence supports them.

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SOURCE REGISTER

Primary source register

CITATIONS

Citation numbers in the narrative open the register entry. Select a source title to open the original publication.

[1] Pew Research Center · Young adults in the U.S. are increasingly wary of AI, concerned it will take jobs

[2] International Labour Organization · Generative AI and Jobs: A Refined Global Index of Occupational Exposure

[3] OECD · Employment Outlook 2026, chapter 1: Employment and wages under pressure

[4] [*REDACTED*], [*REDACTED*] and [*REDACTED*] · Canaries in the Coal Mine? August 2026 working paper

[5] U.S. Bureau of Labor Statistics · Employment Projections 2025–2035, August 27, 2026

[6] U.S. Bureau of Labor Statistics · The Employment Situation, October 2026, November 6 release

[7] U.S. Census Bureau · AI use by business size and sector, Business Trends and Outlook Survey

[8] Pew Research Center · How Teens Use and View AI, February 24, 2026

[9] [*REDACTED*] et al. · Generative AI without guardrails can harm learning: Evidence from high school mathematics

[10] [*REDACTED*], [*REDACTED*] and [*REDACTED*] · Generative AI at Work, research paper and published-version link

[11] U.S. Department of Labor · TEN 07-25: Artificial Intelligence Literacy Framework

[12] U.S. Department of Labor · AI in Registered Apprenticeships initiative, April 1, 2026

[13] U.S. Department of Labor · Workforce Innovation and Opportunity Act: performance indicators and reporting

[14] NIST · Artificial Intelligence Risk Management Framework: Generative AI Profile

[15] Pew Research Center · Young adults in the U.S. are increasingly wary of AI, concerned it will take jobs (Aug. 18, 2026)

[16] Pew Research Center · How Americans' opinions and use of AI differ by age (June 17, 2026)

[17] Pew Research Center · American Trends Panel Wave 195: questionnaire topline (June 2026)

[18] Pew Research Center · American Trends Panel Wave 195: methodology (June 2026)

[19] Institute of Politics at Harvard University · A Workforce in Transition: The AI Economy and What it Means for Our Future (Nov. 18, 2026)

[20] Quinnipiac University Poll · The Age of Artificial Intelligence: Americans' AI Use Increases While Views On It Sour (Mar. 30, 2026)

[21] Bentley University and [*REDACTED*] · Americans Cool Toward AI (July 28, 2026)

[22] [*REDACTED*] · More U.S. Workers Fear Losing Their Jobs to Technology (Sept. 15, 2026)

[23] [*REDACTED*], Jobs for the Future and The Families & Workers Fund · AI Benefits at Work Unevenly Distributed (Oct. 6, 2026)

[24] Institute of Politics at Harvard University · Harvard Youth Poll, 53rd Edition (Fall 2026)

[25] [*REDACTED*] for Groundwork Collaborative · American workers assess AI impact (Aug. 3, 2026)

[26] [*REDACTED*] and [*REDACTED*] · U.S. Large Issue Survey Topline (June 2026)

[27] [*REDACTED*] and [*REDACTED*] · October 2026 Core Political Topline

[28] American Association for Public Opinion Research · Transparency Initiative: disclosures for survey-based research

[29] [*REDACTED*], [*REDACTED*] and [*REDACTED*] · Gen Z's AI Adoption Steady, but Skepticism Climbs (2026)

[30] U.S. Department of Labor · Training and Employment Notice No. 07-25: AI Literacy Framework (Feb. 13, 2026)

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SOURCE REGISTER

Primary source register

CITATIONS

Citation numbers in the narrative open the register entry. Select a source title to open the original publication.

[31] U.S. Department of Education · Guidance on Responsible Use of Education Technology in the Classroom (Aug. 20, 2026)

[32] U.S. Conference of Catholic Bishops · Prepared remarks by Bishop [*REDACTED*] on the AI task force (Nov. 18, 2026)

[33] U.S. Conference of Catholic Bishops · Socially Responsible Investment Guidelines (Nov. 18, 2026)

[34] [*REDACTED*] · [*REDACTED*] Pulse: Wave Two (Nov. 2026)

[35] [*REDACTED*] · The AI Disconnect: The AI Reality Gap (Nov. 5, 2026)

[36] [*REDACTED*] · How AI Is Changing the Way Employees Spend Time at Work (Nov. 16, 2026)

[37] [*REDACTED*] **and** [*REDACTED*] · May 13–15, 2026 national public opinion toplines on AI

[38] International Labour Organization · Generative AI and Jobs: A Refined Global Index of Occupational Exposure (WP 140, May 20, 2025)

[39] U.S. Bureau of Labor Statistics · Artificial Intelligence Exposure Categories (August 27, 2026)

[40] [*REDACTED*], [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · What Work Does Generative AI Do? (August 25, 2026 revision)

[41] [*REDACTED*], [*REDACTED*], [*REDACTED*], [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · The Microstructure of AI Diffusion: Evidence from Firms, Business Functions, and Worker Tasks (October 2026 revision)

[42] U.S. Bureau of Labor Statistics · Employment Situation: October 2026 (November 6 release; USDL-26-1632)

[43] U.S. Bureau of Labor Statistics · Job Openings and Labor Turnover: September 2026 (November 3 release; USDL-26-1630)

[44] [*REDACTED*] · Job Cut Announcement Report: October 2026 (November 5)

[45] [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · Canaries in the Coal Mine? Six Facts about the Recent Employment Effects of Artificial Intelligence (August 2026 revision)

[46] International Labour Organization · Gen AI, Occupational Segregation and Gender Equality in the World of Work (March 2026)

[47] International Labour Organization · AI and Developing Economies: Promoting Decent Work in a Time of Rapid Technological Change (November 2026)

[48] U.S. Bureau of Labor Statistics · Worker Displacement: 2023–2025 (August 27, 2026; USDL-26-1423)

[49] [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · Do Job Postings Show Early Labor-Market Effects of AI? (May 14, 2026)

[50] [*REDACTED*] **and** [*REDACTED*] · How Does AI Change Labor Demand? Evidence from 41 Countries (November 5, 2026 working paper)

[51] [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · Remote Work Leaves Younger Workers Sidelined (June 1, 2026)

[52] Federal Reserve Bank of New York · The Labor Market for Recent College Graduates (2026 Q3 update)

[53] U.S. Census Bureau · Large Firms With at Least 20 Employees Biggest AI Users (May 2026)

[54] [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · Generative AI at Work, Quarterly Journal of Economics 140(2) (2025)

[55] [*REDACTED*] **and** [*REDACTED*] · Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence, Science 381 (2023)

[56] [*REDACTED*], [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · Measuring the Impact of Early-2025 AI on Experienced Open-Source Developer Productivity (July 2025)

[57] [*REDACTED*], [*REDACTED*], [*REDACTED*], [*REDACTED*] **and** [*REDACTED*] · We Are Changing Our Developer Productivity Experiment Design (February 24, 2026)

[58] [*REDACTED*] **et al.** · Navigating the Jagged Technological Frontier: Field Experimental Evidence (2026)

[59] [*REDACTED*] **and** [*REDACTED*] · Still Waters, Rapid Currents: Early Labor Market Transformation under Generative AI (March 2026 revision)

[60] U.S. Bureau of Labor Statistics · Employment Projections: 2025–2035 (August 27, 2026; USDL-26-1422)

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SOURCE REGISTER

Primary source register

CITATIONS

Citation numbers in the narrative open the register entry. Select a source title to open the original publication.

[61] U.S. Bureau of Labor Statistics · Occupational Outlook Handbook: Data Scientists (2025–35 projections)

[62] U.S. Bureau of Labor Statistics · Occupational Outlook Handbook: Software Developers, Quality Assurance Analysts, and Testers (2025–35 projections)

[63] World Economic Forum · Future of Jobs Report 2025: Jobs Outlook (January 2025)

[64] Pew Research Center · How teens use and view AI (February 2026; fall 2025 fieldwork)

[65] Pew Research Center · About a quarter of U.S. teens have used [*REDACTED*] for schoolwork (January 2025)

[66] [*REDACTED*] **/** [redacted] [*REDACTED*] [redacted] · Teachers using AI say it frees up time for what matters most (2026)

[67] Education Endowment Foundation / NFER · Aila Teacher Choices randomized evaluation (October 2026)

[68] [*REDACTED*] **et al.** · Generative AI without guardrails can harm learning (PNAS, 2025)

[69] OECD · Digital Education Outlook 2026: Exploring Effective Uses of Generative AI in Education

[70] [*REDACTED*] **et al.** · Tutor CoPilot: A human-AI approach for scaling real-time expertise

[71] De Simone et al. / World Bank · From Chalkboards to Chatbots (Nigeria experiment; Working Paper 11125)

[72] [*REDACTED*] **et al.** · AI tutoring outperforms in-class active learning (Scientific Reports, 2025)

[73] [*REDACTED*] **and** [*REDACTED*] · Experimental evidence on the learning impact of generative AI (IZA Discussion Paper 18792, 2026)

[74] [*REDACTED*] **et al.** · [REDACTED] detectors are biased against non-native English writers (Patterns, 2023)

[75] U.S. Department of Education · Protecting Student Privacy: Privacy and Data Sharing

[76] UNESCO · AI competency framework for students

[77] UNESCO · AI competency framework for teachers

[78] OECD / European Commission · Empowering learners for the age of AI: primary and secondary framework (2026)

[79] OECD · Survey of Adult Skills 2023: literacy, numeracy and adaptive problem solving

[80] U.S. Department of Labor · Create a Registered Apprenticeship program

[81] National Center for Education Statistics · Digest of Education Statistics, table 702.12: home internet device access, 2022 and 2023

[82] World Wide Web Consortium · Web Content Accessibility Guidelines 2.2

[83] New York City Public Schools · Guidance on Artificial Intelligence and Screen Time, 2026–27

[84] Federal Trade Commission · Complying with COPPA: Frequently Asked Questions, section N

[85] U.S. Department of Education · Guidance on Use of Federal Grant Funds to Improve Education Outcomes Using AI (July 2025)

[86] U.S. Department of Education / Federal Register · Final Supplemental Priority on Advancing AI in Education, 91 FR 18774 (April 2026)

[87] Tennessee General Assembly · Public Chapter 550: instructional and assignment AI policies

[88] New York City Mayor's Office · Announcement of student-facing generative AI moratorium (September 2026)

[89] England Department for Education · Generative AI product safety standards (updated January 2026)

[90] England Department for Education · Introducing an EdTech and AI product safety certification scheme (November 2026 consultation)

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SOURCE REGISTER

Primary source register

CITATIONS

Citation numbers in the narrative open the register entry. Select a source title to open the original publication.

[91] Australian Government Department of Education · Australian Framework for Generative AI in Schools and 2024 review

[92] Federal Trade Commission · Partnerships Between Cloud Service Providers and AI Developers, section 6(b) staff report (January 2025)

[93] UK Competition and Markets Authority · Cloud services market investigation: final decision and appendices (July 2025)

[94] UK Competition and Markets Authority · Provisional [*REDACTED*] business software designation and update on cloud choice (October 16, 2026)

[95] [*REDACTED*] · The next phase of the [*REDACTED*]–[*REDACTED*] partnership (April 27, 2026)

[96] [*REDACTED*] · [*REDACTED*] models are coming to [*REDACTED*] (October 21, 2026)

[97] U.S. Census Bureau · Large firms with at least 20 employees biggest AI users (May 26, 2026)

[98] [*REDACTED*] **et al., Census CES** · The Microstructure of AI Diffusion: Evidence from Firms, Business Functions, and Worker Tasks (October 2026 revision)

[99] U.S. Census Bureau · Business Trends and Outlook Survey, data and methods

[100] U.S. Bureau of Labor Statistics · Productivity and Costs, 2026 Q3 preliminary release (November 5, 2026)

[101] U.S. Bureau of Labor Statistics · Labor share, second-quarter 2026 release vintage (September 15, 2026)

[102] Federal Reserve Board · Distributional Financial Accounts: assets by wealth percentile group, second quarter 2026

[103] Cazzaniga et al., IMF · Gen-AI: Artificial Intelligence and the Future of Work (2024)

[104] IMF working paper · AI Adoption and Inequality (2025)

[105] U.S. Bureau of Labor Statistics · Union members: 2025 (February 18, 2026)

[106] Milanez, Lemmens and Ruggiu, OECD · Algorithmic management in the workplace: employer survey (2025)

[107] OECD and Eurofound · Artificial intelligence and work organisation (November 2026)

[108] U.S. Department of Justice and Federal Trade Commission · 2023 Merger Guidelines, Guideline 10: competing buyers, including employers

[109] U.S. Bureau of Labor Statistics · Quarterly Census of Employment and Wages researchers guide (2026)

[110] U.S. Economic Development Administration · Regional Technology and Innovation Hubs program, implementation award announcement

[111] U.S. National Science Foundation · National Artificial Intelligence Research Resource

[112] U.S. Department of Labor · WIOA Adult and Dislocated Worker Program

[113] U.S. Department of Labor · Rapid Response Services

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Jonathan G. Browning

Jonathan G. Browning is the Founder & CEO of 48PEGASUS and a co-author of this paper. His professional background includes strategy and operations leadership in energy and real estate, with experience designing business workflows, implementing CRM and reporting systems, and assessing how AI and automation fit operational decisions.

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How to cite this paper

Browning, Jonathan G., and 48PEGASUS Research. Job Displacement and Broader Societal Impacts. November 19, 2026. Version 1.0.

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AI disclosure and reader guide

TRANSPARENCY

No model fine-tuning was performed.

Conceptual exhibits are illustrative. Verify material claims independently.

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