

EXECUTIVE PERSPECTIVE

The employment opportunity gap

Output is expanding faster than labor input. Hiring and access to work require a separate assessment.

The evidence supports a slowdown in employment creation relative to recent historical performance. It does not establish that every missing position was canceled, that AI caused the shortfall, or that a recession is inevitable.

2.61M

Payroll jobs below the
2023-24 pace baseline

+10.0%

Real output growth
Q4 2022 to Q2 2026

3.3%

Monthly hiring rate
August 2026

1. Employment growth has slowed materially. Payrolls grew by 699,000 from December 2024 to August 2026. Continuing the 2023-24 average pace would have added 3.31 million jobs. [1]

2. Production has become less dependent on additional hours. Nonfarm business output rose 10.0% while hours increased 0.9% from Q4 2022 to Q2 2026. This is evidence of productivity growth, with multiple possible causes. [2,3]

3. Access remains uneven. August payrolls rose 133,000 after a July loss of 10,000. The two months were revised down by 60,000; 27% of unemployed people had been jobless for at least 27 weeks. [6]

Leadership implication

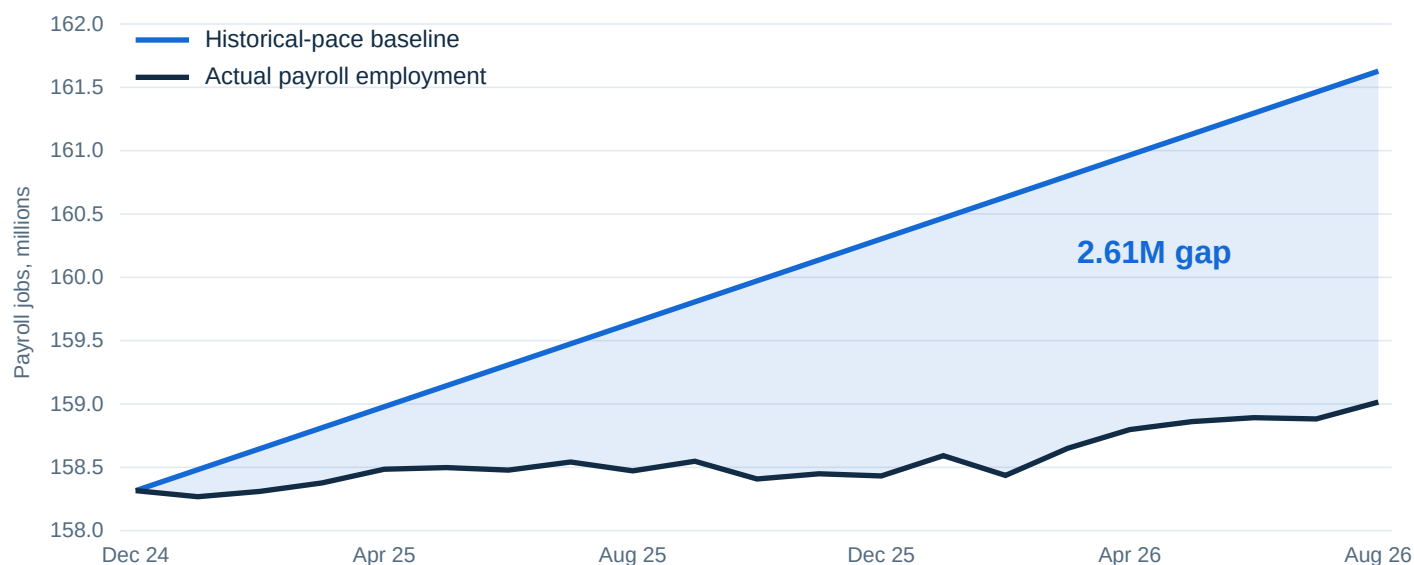
Track workforce access alongside productivity: external hiring, vacancy cancellations, redeployment, entry roles, and outcomes after displacement.

August 2026 report, updated 6 October 2026. Monthly BLS measures use the Sep 29 and Oct 2 releases. Historical baseline and output/hour inputs retain the Sep 20 vintage. Counterfactuals are descriptive. Sources: page 7.

EXHIBIT 1 | CALCULATED BASELINE

Payroll employment is 2.61 million jobs below a recent historical pace

All baselines begin at actual December 2024 employment; monthly observations run through August 2026.



Reference period	Average monthly gain	Aug 2026 gap
2024 only	121,583	1.73M
2023-24 main baseline	165,583	2.61M
2017-19 pre-pandemic	177,389	2.85M

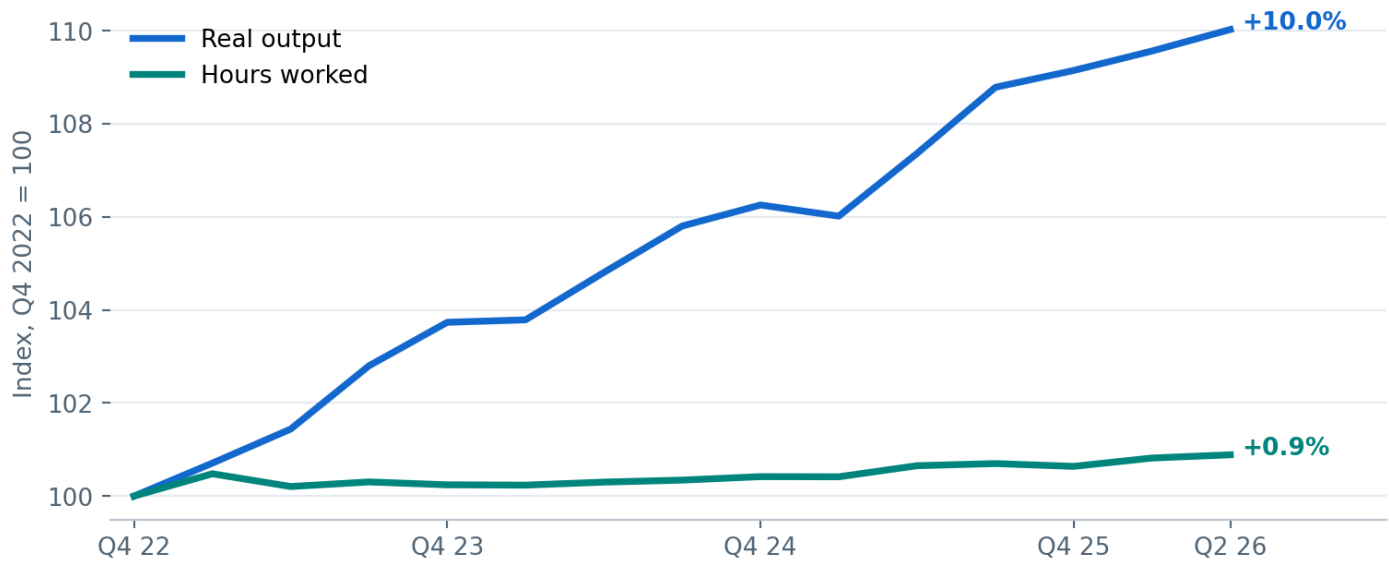
Interpretation. The estimate ranges from 1.73M to 2.85M across the selected reference periods. This is a sensitivity range, not a confidence interval. Actual employment increased; the gap measures growth below a hypothetical path.

Baseline = 158.316M + months since Dec 2024 x historical average monthly gain. Gap = baseline minus actual payroll jobs. Jobs are payroll positions, not unique people. Source: BLS via FRED PAYEMS [1]; calculations in page 8.

EXHIBIT 2 | OBSERVED OUTPUT AND LABOR INPUT

Output grew 10.0% with less than 1% growth in hours worked

Nonfarm business sector, seasonally adjusted; both series indexed to Q4 2022 = 100.



What this demonstrates

The economy produced substantially more per hour worked over this interval. Labor productivity, calculated as real output divided by hours, increased approximately 9.1%. [2,3]

What it does not demonstrate

The difference cannot be converted directly into a count of jobs eliminated. Capital investment, technology, skills, sector composition, and business processes can all change output per hour.

Why it matters

Higher productivity can support better wages, lower prices, investment, and new demand. The employment concern arises if new work and reentry opportunities fail to keep pace with displacement.

The sector in this exhibit differs from total nonfarm payrolls in Exhibit 1; the two datasets are not combined in the employment-gap formula. Sources: [2,3].

EXHIBIT 3 | ACCESS TO EMPLOYMENT

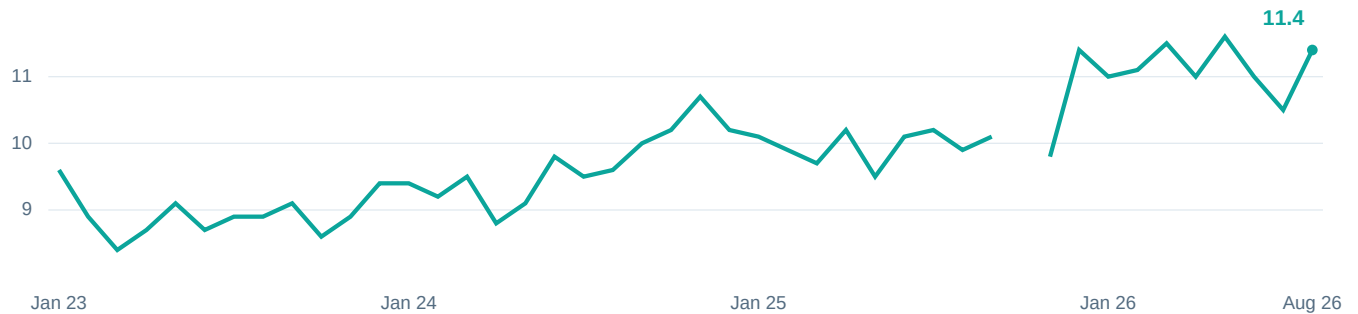
Hiring has weakened while ongoing unemployment spells have lengthened

Monthly observations since January 2023; hiring through August 2026, unemployment duration through August 2026.

Monthly hiring rate (%)



Median duration of ongoing unemployment (weeks)



Hiring rate: 4.1% in January 2023 versus 3.3% in August 2026, a decline of 0.8 percentage point. The rate includes hires of people already employed and is not a job-finding probability. [4,7]

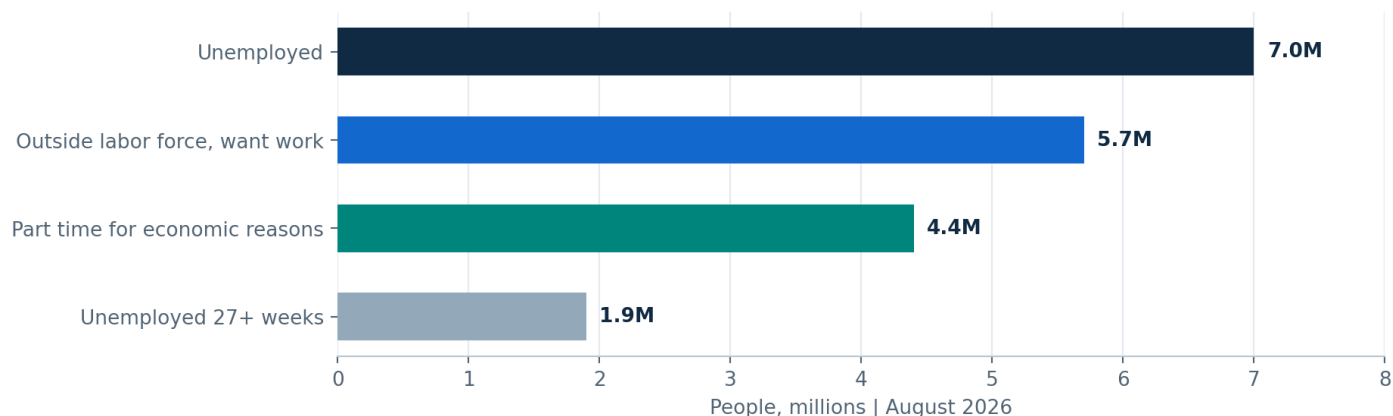
Median ongoing unemployment: 9.6 weeks in January 2023 versus 11.4 weeks in August 2026. This describes people currently unemployed, not the final length of completed searches. Composition changes can affect the median. [5]

The October 2025 duration observation is missing in the source and is left as a break. Directional co-movement does not establish causality. Full monthly inputs appear on page 9.

EXHIBIT 4 | CURRENT LABOR-MARKET SNAPSHOT

A 4.1% unemployment rate coexists with substantial unmet need for work

August 2026 household and JOLTS measures; payrolls revised October 2, 2026.



Long-term unemployment is a subset of total unemployment. The bars are not additive. People outside the labor force who want work may be unavailable or not recently searching. [6]

Hiring and openings	July 2026	August 2026
Job openings	7.335M	7.079M
Monthly hires	5.146M	5.192M
Hiring rate	3.2%	3.3%

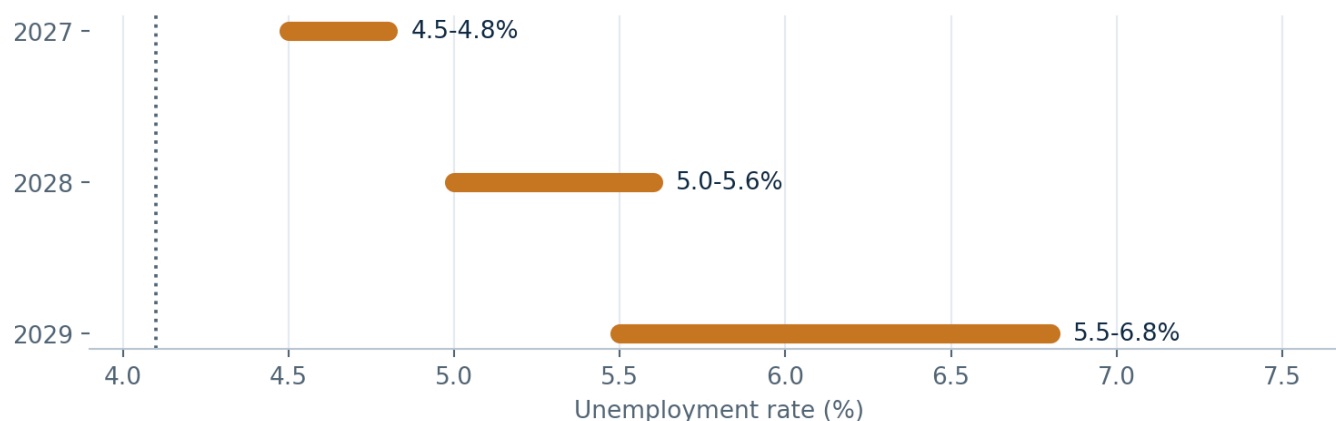
Monthly hires rose 46,000 (0.9%). Government hires rose 47,000; private hires fell 1,000. BLS assessed hires and openings as little changed. Openings are a month-end stock; hires are gross monthly flows. [7]

Revision note: July payrolls -10,000 (was +21,000); August +133,000 (was +162,000). Combined downward revision: 60,000. July JOLTS openings and hires were revised to 7.335M and 5.146M. August payrolls and JOLTS remain preliminary. [1,6,7]

PLANNING SCENARIOS | NOT A FORECAST

Earlier unemployment scenarios illustrate risk, but are not validated predictions

Retained from the September 16 discussion for continuity. These ranges are not outputs of the new employment-gap calculation.



Year	Unemployment scenario	GDP growth scenario
2027	4.5-4.8%	1.7-2.3%
2028	5.0-5.6%	1.0-2.0%
2029	5.5-6.8% stress range	0.5-1.5%

The underlying equations, calibration, probabilities, GDP growth convention, and forecast timing were not recoverable. These values should not be presented as a tested forecast. Earlier AI displacement totals are excluded because their employment base and timing could not be verified.

Actions for CEOs, CHROs, and boards

1. Reconcile headcount savings with canceled vacancies, external hires, and internal moves.
2. Measure reentry outcomes, including time to paid work and earnings recovery.
3. Test whether AI savings support additional demand, investment, or only lower labor cost.

Scenario source: prior conversation, 16 September 2026. The 2029 discussion also referenced approximately 6% as a central illustration. No likelihood is assigned.

METHODOLOGY AND SOURCES

A transparent counterfactual supports a narrower, stronger conclusion

A historical-pace comparison measures the gap; it does not identify its causes.

Construction. Anchor at December 2024, immediately before the evaluation window. Estimate a constant monthly gain from December 2022 to December 2024 (24 changes). Apply it for 20 months through August 2026. Compare against actual seasonally adjusted payroll employment. Test 2024 and 2017-19 as alternative reference periods.

Limitations. This is a descriptive extrapolation, not an econometric estimate of employment absent AI. It does not adjust for population, immigration, labor-force participation, interest rates, demand, sector mix, or sustainable full-employment growth. A gap can reflect labor supply as well as labor demand. It is not a measure of vacancies canceled, layoffs, unique workers, or cumulative job-months.

Attribution. Identifying AI effects requires firm- or occupation-level adoption data and a credible comparison group, controlling for prior trends and demand. Aggregate output and employment data cannot establish the share attributable to AI.

[1] BLS / FRED: Total Nonfarm Payrolls (PAYEMS); July-August revised Oct 2

[2] BLS / FRED: Nonfarm Business Real Output (OUTNFB)

[3] BLS / FRED: Nonfarm Business Hours Worked (HOANBS)

[4] BLS / FRED: Hires Rate (JTSHIR); August update released Sep 29

[5] BLS / FRED: Median Weeks Unemployed (UEMPMED)

[6] BLS: Employment Situation, Oct 2, 2026; August columns and revisions

[7] BLS: JOLTS, August 2026, released Sep 29

[8] Federal Reserve: Beige Book, July 2026

Updated 6 October 2026. July-August payrolls use the Oct 2 BLS release; August JOLTS uses Sep 29. Historical baseline, output/hour and earlier monthly inputs retain the Sep 20 vintage. Data remain subject to revision. Source [8] is qualitative context, not a causal estimate.

DATA APPENDIX A

Payroll inputs and baseline calculations

All values below are thousands of payroll jobs. Calculations use unrounded inputs.

Month	Actual	Main baseline	Gap
Dec 2024	158,316	158,316.0	0.0
Jan 2025	158,268	158,481.6	213.6
Feb 2025	158,310	158,647.2	337.2
Mar 2025	158,377	158,812.8	435.8
Apr 2025	158,485	158,978.3	493.3
May 2025	158,498	159,143.9	645.9
Jun 2025	158,478	159,309.5	831.5
Jul 2025	158,542	159,475.1	933.1
Aug 2025	158,472	159,640.7	1,168.7
Sep 2025	158,548	159,806.2	1,258.2
Oct 2025	158,408	159,971.8	1,563.8
Nov 2025	158,449	160,137.4	1,688.4
Dec 2025	158,432	160,303.0	1,871.0
Jan 2026	158,592	160,468.6	1,876.6
Feb 2026	158,436	160,634.2	2,198.2
Mar 2026	158,650	160,799.8	2,149.8
Apr 2026	158,798	160,965.3	2,167.3
May 2026	158,861	161,130.9	2,269.9
Jun 2026	158,892	161,296.5	2,404.5
Jul 2026	158,882	161,462.1	2,580.1
Aug 2026	159,015	161,627.7	2,612.7

Main slope: $(158,316 - 154,342) / 24 = 165.5833$ thousand jobs/month.

2024 slope: $(158,316 - 156,857) / 12 = 121.5833$.

2017-19 slope: $(151,794 - 145,408) / 36 = 177.3889$.

Baseline anchors: Dec 2016 145,408; Dec 2019 151,794; Dec 2022 154,342; Dec 2023 156,857; Dec 2024 158,316. Source: [1].

July-August actual levels: BLS Oct 2, 2026 release, table B-1. Historical inputs and baseline anchors retain the Sep 20 vintage. Revised August gap: $161,627.6667 - 159,015 = 2,612.6667$ thousand jobs (2.61M).

DATA APPENDIX B

Monthly hiring and unemployment-duration inputs

Hiring rate in percent; median duration in weeks. Missing values are retained as missing.

Month	Hire %	Weeks	Month	Hire %	Weeks
Jan 2023	4.1	9.6	Nov 2024	3.3	10.7
Feb 2023	3.9	8.9	Dec 2024	3.3	10.2
Mar 2023	3.8	8.4	Jan 2025	3.3	10.1
Apr 2023	3.8	8.7	Feb 2025	3.3	9.9
May 2023	3.9	9.1	Mar 2025	3.4	9.7
Jun 2023	3.8	8.7	Apr 2025	3.4	10.2
Jul 2023	3.6	8.9	May 2025	3.4	9.5
Aug 2023	3.7	8.9	Jun 2025	3.4	10.1
Sep 2023	3.7	9.1	Jul 2025	3.3	10.2
Oct 2023	3.7	8.6	Aug 2025	3.2	9.9
Nov 2023	3.5	8.9	Sep 2025	3.3	10.1
Dec 2023	3.6	9.4	Oct 2025	3.3	N/A
Jan 2024	3.6	9.4	Nov 2025	3.2	9.8
Feb 2024	3.6	9.2	Dec 2025	3.3	11.4
Mar 2024	3.5	9.5	Jan 2026	3.4	11.0
Apr 2024	3.5	8.8	Feb 2026	3.1	11.1
May 2024	3.5	9.1	Mar 2026	3.5	11.5
Jun 2024	3.3	9.8	Apr 2026	3.3	11.0
Jul 2024	3.4	9.5	May 2026	3.3	11.6
Aug 2024	3.3	9.6	Jun 2026	3.4	11.0
Sep 2024	3.4	10.0	Jul 2026	3.2	10.5
Oct 2024	3.3	10.2	Aug 2026	3.3	11.4

Sources: [4,5,7]. August hiring rate is observed at 3.3%, from the Sep 29 JOLTS release. Earlier inputs retain the Sep 20 vintage. October 2025 unemployment duration remains missing. Read down the left block, then down the right block.

DATA APPENDIX C

Output, hours, and snapshot inputs

Quarterly source indices use 2017 = 100; Exhibit 2 rebases both to Q4 2022 = 100.

Quarter	Output source	Hours source	Output rebased	Hours rebased
Q4 2022	115.488	104.944	100.00	100.00
Q1 2023	116.306	105.447	100.71	100.48
Q2 2023	117.151	105.159	101.44	100.20
Q3 2023	118.721	105.263	102.80	100.30
Q4 2023	119.801	105.198	103.73	100.24
Q1 2024	119.862	105.191	103.79	100.24
Q2 2024	121.038	105.259	104.81	100.30
Q3 2024	122.190	105.304	105.80	100.34
Q4 2024	122.712	105.382	106.26	100.42
Q1 2025	122.436	105.379	106.02	100.41
Q2 2025	123.993	105.629	107.36	100.65
Q3 2025	125.633	105.677	108.78	100.70
Q4 2025	126.051	105.614	109.15	100.64
Q1 2026	126.533	105.802	109.56	100.82
Q2 2026	127.068	105.875	110.03	100.89

Rebasing: $\text{index}(t) = 100 \times \text{source}(t) / \text{source}(\text{Q4 2022})$.

Productivity change = $[(127.068 / 115.488) / (105.875 / 104.944) - 1] \times 100 = 9.1\%$. Sources: [2,3].

August 2026 measure	Value
Unemployment rate / unemployed	4.1% / 7.0M
Long-term unemployed / share of unemployed	1.9M / 27.0%
Outside labor force, want work	5.7M
Part time for economic reasons	4.4M
Monthly payroll change	+133,000

Snapshot source: [6]. Counts above are rounded release figures; use survey microdata for more detailed subgroup comparisons.

July payroll change: -10,000. July and August combined revised down 60,000 on Oct 2, 2026. [6]