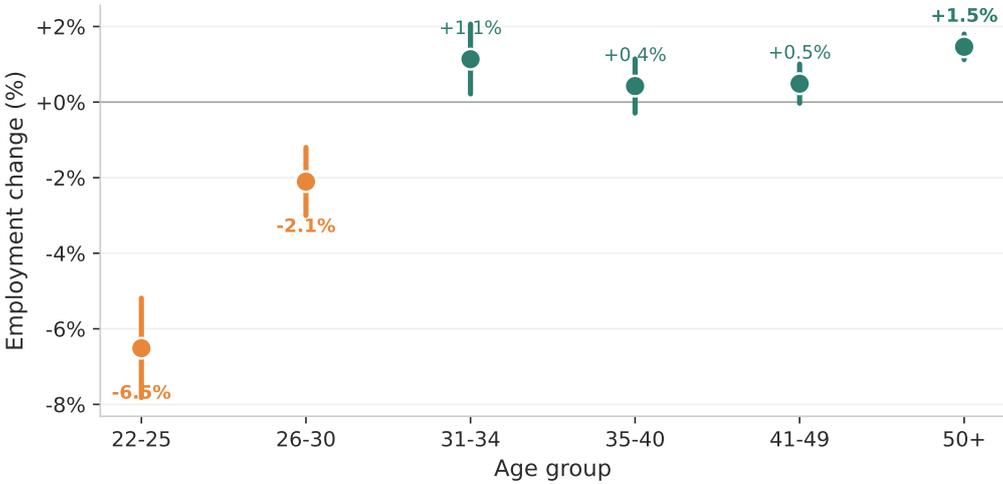


Same Storm, Different Boats: Generative AI and the Age Gradient in Hiring

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Key finding: In the two and a half years after ChatGPT's launch, employment of **22–25 year olds** in AI-exposed occupations fell by **6.5%** relative to less exposed occupations, while employment of **workers over 50 rose by 1.5%**.

Relative employment change in AI-exposed occupations after ChatGPT launch



Note: Employer×quartile and employer×month fixed effects. 95% CI shown. Bold = $p < 0.01$.

What we found

- The widely noted decline in job postings reflects **monetary tightening**, not AI. A natural timing test confirms this: the decline begins with the Riksbank rate hike (April 2022), seven months *before* ChatGPT, and there is no correlation between AI exposure and interest-rate sensitivity.
- Beneath this aggregate trend, AI is reshaping **who gets hired**. Within the same firms, young workers in AI-exposed occupations (e.g., software developers, customer service agents, administrative assistants) are disproportionately losing employment, a shift invisible in aggregate statistics.
- The age gradient is **monotonic**: the younger the worker, the larger the negative effect. An event study with flat pre-trends shows the gap **widening through mid-2025**. The result mirrors US findings (Brynjolfsson et al., 2025) and contrasts with a Finnish null

(Kauhanen, 2025); our within-employer design using **full-population** data may capture composition shifts not visible at the occupation level.

Policy implications

- **AI operates on employment composition**, not only aggregate demand. Targeted interventions are needed alongside broader economic policy.
- Candidate responses include **entry-level transition pathways**: vocational education (YH) and apprenticeships integrating AI tools, though their effectiveness for this specific challenge remains to be tested.
- **The silver lining**: evidence shows young workers recover faster from displacement than older workers (Athey et al., 2024), making early intervention particularly promising.
- Monitoring the **composition** of employment, not just the volume, is essential for timely policy response.

Data & method: Monthly employer declarations (arbetsgivardeklarationer, AGI) from Statistics Sweden, covering every employment relationship in Sweden, 2019–June 2025. Outcome: employment positions by age group and occupation. AI exposure measured using the DAIOE index (Engberg et al., 2024). Difference-in-differences with employer×quartile and employer×month fixed effects, following Brynjolfsson et al. (2025). SEs clustered by employer. DAIOE is constructed from pre-2022 work content, fixed across the sample period.

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