The Pissarides Review into the Future of Work and Wellbeing

Briefing Paper

Artificial intelligence and employee pay in the United Kingdom: novel evidence and policy implications

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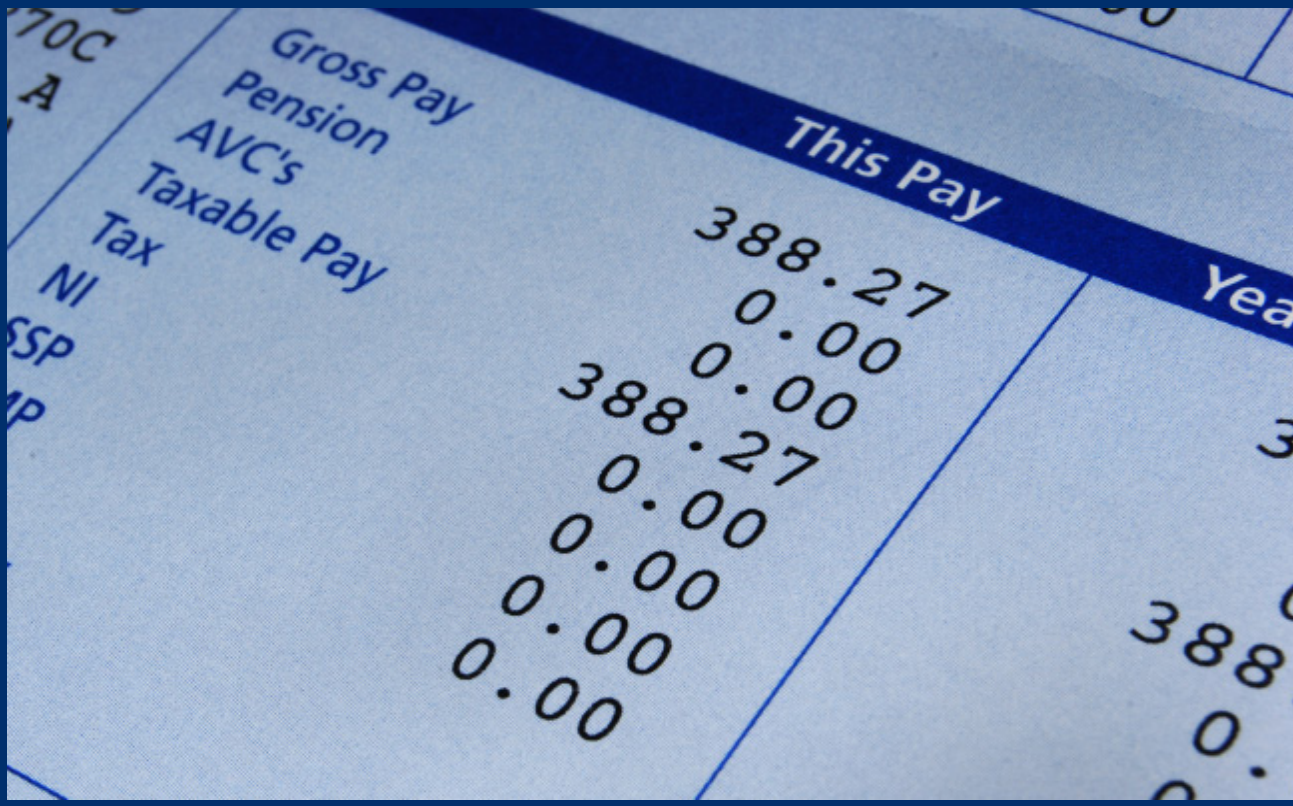

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The ESRC Centre for Digital Futures at Work (Digit) studies the way that digital technologies are reshaping work. Digit is jointly led by the University of Sussex Business School and Leeds University Business School.
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Nuffield Foundation

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1. Introduction

Artificial intelligence (AI) is rapidly becoming embedded in UK workplaces, impacting how work is organised, monitored and rewarded. While public debate has focused heavily on automation and job displacement, far less attention has been paid to how AI affects workers' pay and pay inequalities in the workplace.

This briefing is based on our recent article "Artificial Intelligence Technologies and Employee Pay in the United Kingdom: Evidence From Matched Employer–Employee Data", published in the British Journal of Industrial Relations by Felix Schulz, Danat Valizade, Mark Stuart, Magdalena Soffia and Jolene Skordis (Schulz et al., 2025). The article presents a research collaboration between the Institute for the Future of Work (IFOW) and the ESRC Research Centre for Digital Futures at Work (Digit), funded respectively by the Nuffield Foundation (Pissarides Review into the Future of Work and Wellbeing) and the Economic and Social Research Council.

Wider findings from Digit's research and the Pissarides Review indicate that while AI adoption is not yet radical (only around a third of UK employers had invested in AI-enabled technologies in the past five years), these technologies are beginning to affect workers' quality of life and job quality. Building on this early evidence, Schulz et al. (2025) examine the likely impacts of AI adoption on pay outcomes using matched data from over 2,000 UK employers and more than 5,400 workers.

The emerging findings are promising. AI adoption is associated with higher pay and the largest relative gains accrue to lower-qualified and lower-skilled workers. However, these gains are contingent on two critical factors:

1. Workers' frequent use of AI

2. Employee involvement in decision-making. Where employees are consulted or involved in pay negotiations, AI-related pay benefits are more evenly distributed.

These findings are consistent with the principle of human-centred or pro-worker AI (Acemoglu 2025). We would argue that AI can support inclusive growth and a more equitable labour market, but to do so necessitates a supportive institutions and a policy environment that actively shapes how AI is deployed, and furthers skill development and employee participation in workplace governance. The alternative is a fragmented AI transition that benefits a narrow segment of the workforce while leaving structural inequalities intact.

2. What does the literature say about technology and pay?

Two theoretical perspectives have been central to the orthodox economic debate on technology:

- *Skill-biased technological change (SBTC.)*
- *Routine-biased technological change (RBTC).*

SBTC argues that technology adoption complements the work of more educated, skilled workers, thus increasing their discretion and pay, while lower qualified workers are pushed outside the labour market (Autor et al., 1998; Krueger, 1993). RBTC emphasises tasks rather than jobs. It posits that computers tend to substitute routine tasks but are unable to competently replace cognitive, non-routine tasks. This leads to job polarisation: the simultaneous rise in the demand for high-paid and low-paid jobs and hollowing out of 'median-paid' jobs (Goos and Manning, 2007).

Evidence suggests that previous waves of computerisation have indeed led to an increasingly polarised labour market. However, research examining how emerging AI-powered technologies may affect employee pay remains limited (notable recent developments: Autor and Thompson, 2025; Kording & Marinescu, 2025). Furthermore, SBTC and RBTC theories do not consider the labour process, work-employer relationships and structures of employee voice. Yet, these factors are likely to shape the effects of new digital technologies on work and employment (Berg et al., 2023; Boyd and Holton, 2018; Autor, 2024; Spencer, 2017; Thompson and Laaser, 2021).

Against this backdrop, our research seeks to understand whether the adoption of AI intensifies existing inequalities or offers a pathway to a more equitable distribution of opportunities.

3. Methodological advantage

Existing evidence often relies on crude aggregations of workplace technologies, combining AI with more traditional forms of ICT. Research that engages specifically with AI technology is often based on vacancy data or aggregated, macro-economic analysis. Our study is among the first to use **matched, nationally representative employer and employee data** to investigate the link between AI adoption and pay.

Survey data sources

- **Employee level data** *comes from the* **Pissarides Review Worker Survey**, *administered online by IFOW between May and June 2023, with a valid representative sample of 5460 employees, and quotas set at the International Territorial Units Level 1 (ITL1).*
- **Employer level data** *comes from the Employers' Digital Practices at Work Survey, conducted by Digit between January 2021 and September 2023 using Computer Assisted Telephone Interviews (CATI), with a final derived sample of 2001 employers.*

The datasets were linked by the intersection of industry (SIC codes), region (ITL level 1) and establishment size (those with less than 24 employees; 25–499 employees; and 500 or more employees) and provide a representative picture of AI adoption and employment practices across 576 industry-region–firm size clusters.

Both surveys measured AI adoption. Employees were asked how often they interacted with AI-powered software or hardware technology in their everyday work (responses ranging from 'never' to 'always'); while the Digit survey captured whether employers had invested in AI-technology in the previous five years.

The analysis focused on the link between AI adoption and the likelihood of pay rises across four qualification and occupation skills groups ranging from the least skilled workers with no formal qualification to highly skilled workers with a university degree. The study also analysed whether employee involvement in decisions around pay can enable a more equitable distribution of AI benefits.

We used **machine learning** algorithms (Valizade et al., 2024) to estimate the direction and magnitude of the relationship between AI technology, qualification levels and pay. We summarise the key findings below.

4. Headline findings

Is AI adoption in the UK beneficial for workers' pay?

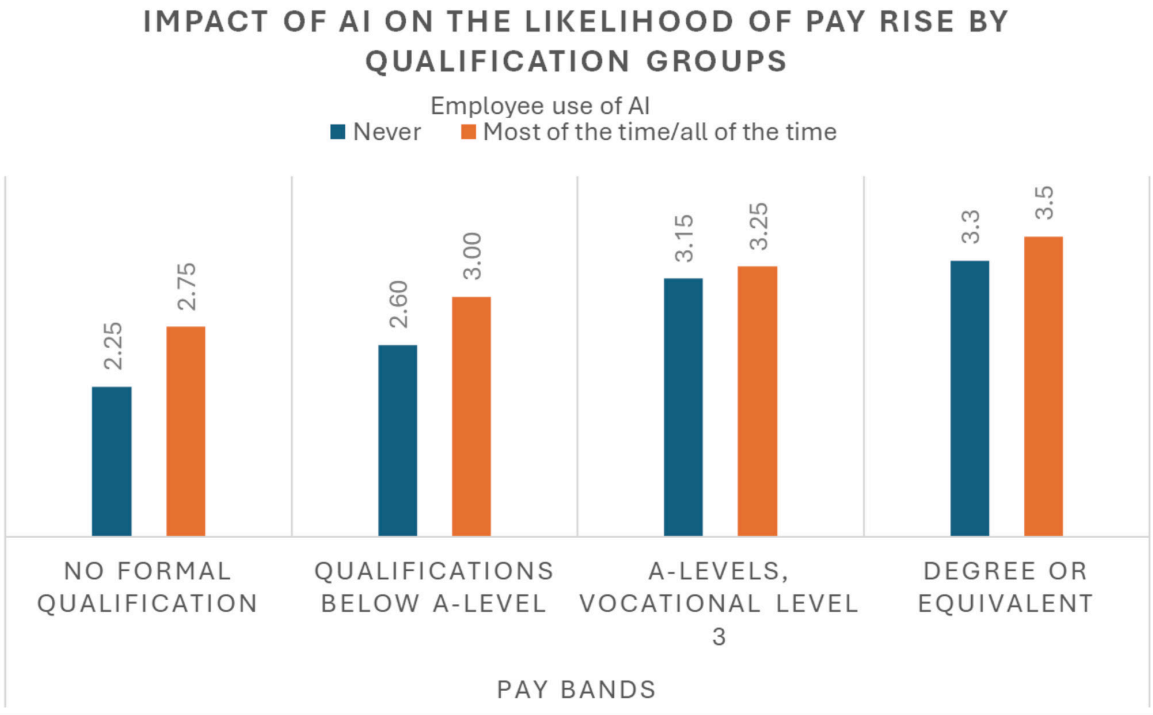
Despite limited AI adoption across UK workplaces, we found a consistent and positive association between AI technology and employee pay levels:

- *Workers who use AI more frequently are more likely to benefit from higher pay.*
- *Employer adoption is as important as workers' use of technology: AI adoption needs to reach a critical threshold of at least 40% at the industry-region level to elevate the likelihood of pay benefits for workers.*
- *The magnitude of pay gains is economically meaningful, with potentially substantial increases in annual earnings. Our modelling suggests that a median worker could see a pay rise of up to 15% due to the extensive use of AI at work.*

Are the pay impacts of AI equally distributed within the workforce?

One of the most striking findings concerns the distributional effects of AI on pay.

- ***Lower-qualified workers experience the largest relative pay gains from AI**, but only when AI is deeply embedded in their work (Figure 1).*
- *As with qualification groups, employees at the lower end of the occupational hierarchy appear to benefit disproportionately from the use of AI technology at work.*
- *Higher-skilled workers also benefit, but gains are smaller and more incremental.*



5. Conclusion

The evidence reviewed in this briefing challenges dominant narratives about AI and work. Rather than inevitably displacing workers or increasing inequality, AI can support higher pay and more equitable outcomes — but only under specific institutional conditions.

The central lesson is clear: **technology does not determine outcomes on its own.** Pay distribution in the age of AI depends on how work is designed, how skills are developed, and whether workers have a meaningful voice in decisions that affect them.

These findings underline the importance of proactive policy leadership. By shaping the governance of AI at work, Parliament can help ensure that the benefits of technological change are shared broadly across the UK workforce.

This study presents novel evidence that can be summarised in the following key findings:

1. There is a consistent and positive association between employer adoption and employee use of AI and employee pay levels.

2. The effect of AI on pay varies significantly across qualification and occupation skill groups.

3. Employee involvement in pay determination moderates the relationship between AI-powered digital technology and employee pay.

6. Policy Recommendations

Increase participation to increase pay

Evidence shows that AI-related pay gains are more equally shared where workers have a say in pay determination. In a context of declining union coverage, worker voice cannot be left to employer good will. The Government should actively extend voice arrangements across UK workplaces to prevent AI productivity gains being captured solely by firms. This can be achieved in the following two ways:

- ***Recommendation 1.*** *The Government should require employers to inform and consult workers and/or recognised unions on the introduction of AI systems that shape task allocation, performance management or pay outcomes. This could be embedded either through strengthened Information and Consultation of Employees (ICE) Regulations or, post-Employment Rights Act, realised in the next stages of the Government's 'Plan to Make Work Pay'.*

- ***Recommendation 2.*** *The Government should embed workers' participation in AI governance frameworks in an AI governance regime. Workers' rights to transparency, information and involvement in pay-setting should be embedded in the UK's AI governance regime and developed in an updated Statutory Code of Practice on workplace engagement.*

Integrate AI adoption, training and skills development

Historically, UK training policy has emphasised supply-side factors over the demand side. A more integrated approach to AI skills formation is required, as part of national skills strategy, considering both supply and demand side factors, encouraging partnerships, supporting life-long learning and stimulating employer-provided training.

- ***Recommendation 3:*** *The Government should pilot a High-Involvement Human Resources Partner Programme. Responsibility for skills upgrading cannot be the preserve of a single actor. A partnership approach to skills development is needed, with a focus on mutual responsibilities and support. A government-led initiative should be created to co-design training programmes with businesses, unions and professional bodies such as the CIPD.*

- ***Recommendation 4:*** *The Lifelong Learning Entitlement should be expanded to reflect a social right to learn, and existing skills programmes redesigned as 'skills and capabilities' infrastructures rather than short-term training fixes.*

- ***Recommendation 5:*** *Current and future AI tax credits, public funding and innovation support should be conditional on firms providing demonstrable in-work training for low- and mid-skilled workers. Otherwise, the voluntary training market risks producing a narrow "AI elite" while weakening long-term worker bargaining power.*

- ***Recommendation 6:*** *Government should provide resources to trade unions to support the upgrading of basic and essential digital skills, through a similar model to the now defunct Union Learning Fund.*

Support inclusive AI adoption aligned with principles of good work.

A more extensive adoption of AI is required to bridge the gap between AI adopters and non-adopters. Moreover, as AI adoption alone does not deliver progress, this should be paired with policies to ensure adoption supports good work principles, alongside growth and productivity gains.

- ***Recommendation 7:*** *The Government should provide targeted AI adoption support to SMEs, in particular to those in less technologically advanced sectors, to help them adopt AI responsibly.*

- ***Recommendation 8:*** *National initiatives such as AI Growth Zones, Local Growth Funds and SME digital adoption schemes should build in consideration and monitoring of impacts on pay and job quality. Success must be measured by wage growth, participation, and capability development alongside productivity.*

Selected References

Source article: Schulz, F., D. Valizade, M. Stuart, M. Soffia, and J. Skordis. 2025. "Artificial intelligence technologies and employee pay in the United Kingdom: evidence from matched employer–employee data." British Journal of Industrial Relations. https://doi.org/10.1111/bjir.70019

Autor, D., & Thompson, N. (2025). Expertise (No. w33941; p. w33941). National Bureau of Economic Research.

Autor, D. H., L. F. Katz, and A. B. Krueger. 1998. "Computing Inequality: Have Computers Changed the Labor Market?" Quarterly Journal of Economics 113: 1169–1213.

Berg, J., F. Green, L. Nurski, and D. A. Spencer. 2023. "Risks to Job Quality from Digital Technologies: Are Industrial Relations in Europe Ready for the Challenge?" European Journal of Industrial Relations 29: 347–365.

Bone, M., E. Ehlinger, and F. Stephany. 2024. "Skills or Degree? The Rise of Skill-Based Hiring for AI and Green Jobs." SSRN Electronic Journal.

Boyd, R., and R. J. Holton. 2018. "Technology, Innovation, Employment and Power: Does Robotics and Artificial Intelligence Really Mean Social Transformation?" Journal of Sociology 54: 331–345.

Goldstein, A., A. Kapelner, J. Bleich, and E. Pitkin. 2015. "Peeking Inside the Black Box: Visualizing Statistical Learning with Plots of Individual Conditional Expectation." Journal of Computational and Graphical Statistics 24: 44–65.

Goos, M., and A. Manning. 2007. "Lousy and Lovely Jobs: The Rising Polarization of Work in Britain." Review of Economics and Statistics 89: 118–133.

Kording, K., & Marinescu, I. (2025). (Artificial) Intelligence saturation and the future of work [Working Paper]. Center on Regulation and Markets at Brookings.

Krueger, A. B. 1993. "How Computers Have Changed the Wage Structure: Evidence from Microdata, 1984–1989." Quarterly Journal of Economics 108: 33–60.

Office for AI. 2019. "Understanding Artificial Intelligence."

Spencer, D. 2017. "Work in and Beyond the Second Machine Age: The Politics of Production and Digital Technologies." Work, Employment and Society 31: 142–152.

Stephany, F., and O. Teutloff. 2024. "What Is the Price of a Skill? The Value of Complementarity." Research Policy 53: 104898.

Thompson, P., and K. Laaser. 2021. "Beyond Technological Determinism: Revitalising Labour Process Analyses of Technology, Capital and Labour." Work in the Global Economy 1: 139–159.

Valizade, D., Schulz, F. & Cezara, N. (2024). Towards a Paradigm Shift: How Can Machine Learning Extend the Boundaries of Quantitative Management Scholarship? British Journal of Management, 35(1): 99-114.

The Pissarides Review into the Future of Work and Wellbeing

Automation technologies are transforming work, society and the economy in the UK in ways comparable to the Industrial Revolution. The adoption of these technologies accelerated through the COVID-19 pandemic, and the ongoing impact of automation is unevenly distributed, with a disproportionate impact on demographic groups in lower pay jobs.

IFOW's Pissarides Review into the Future of Work and Wellbeing - led by Nobel Laureate Professor Sir Christopher Pissarides, is researching the impacts of automation on work and wellbeing, and analyse how these are differently distributed between socio-demographic groups and geographical communities in the UK.

For more information on the Review, visit: pissaridesreview.ifow.org

If you have a professional or research interest in the subject of the impact of automation technologies on work and wellbeing and have insights to share, please contact Abby Gilbert, Co-Director at the Institute for the Future of Work on abby@ifow.org

If you are a member of the press and have an enquiry or would like to receive new press releases by email, please email team@ifow.org