

How Can Policy Boost Productivity Growth?

Skills, Firms and Wage Progression

UKRI PIP, IFS Project

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Economic
and Social
Research Council

Skills, Firms and Wage Progression

- Earnings progression across individual careers is a central driver of labour market inequalities and a key aspect of job quality and ‘good jobs’,
 - a job with opportunities for training, earnings progression and career opportunities.
- Focus here is on those with lower formal educational qualifications,
 - less educated workers experience low levels of training and poor wage progression,
 - employment alone is not sufficient to deliver wage progression.
- The tax and benefit system has focussed on supplementing low earnings and does little to enhance productivity, progression, or job quality,
 - more desirable for workers to experience pay growth driven by increases in their productivity.
- But what skills bring largest returns and does the firm match matter?
 - A long tail of low productivity firms, especially concentrated outside London & the SE,
 - so what makes a productive workplace?

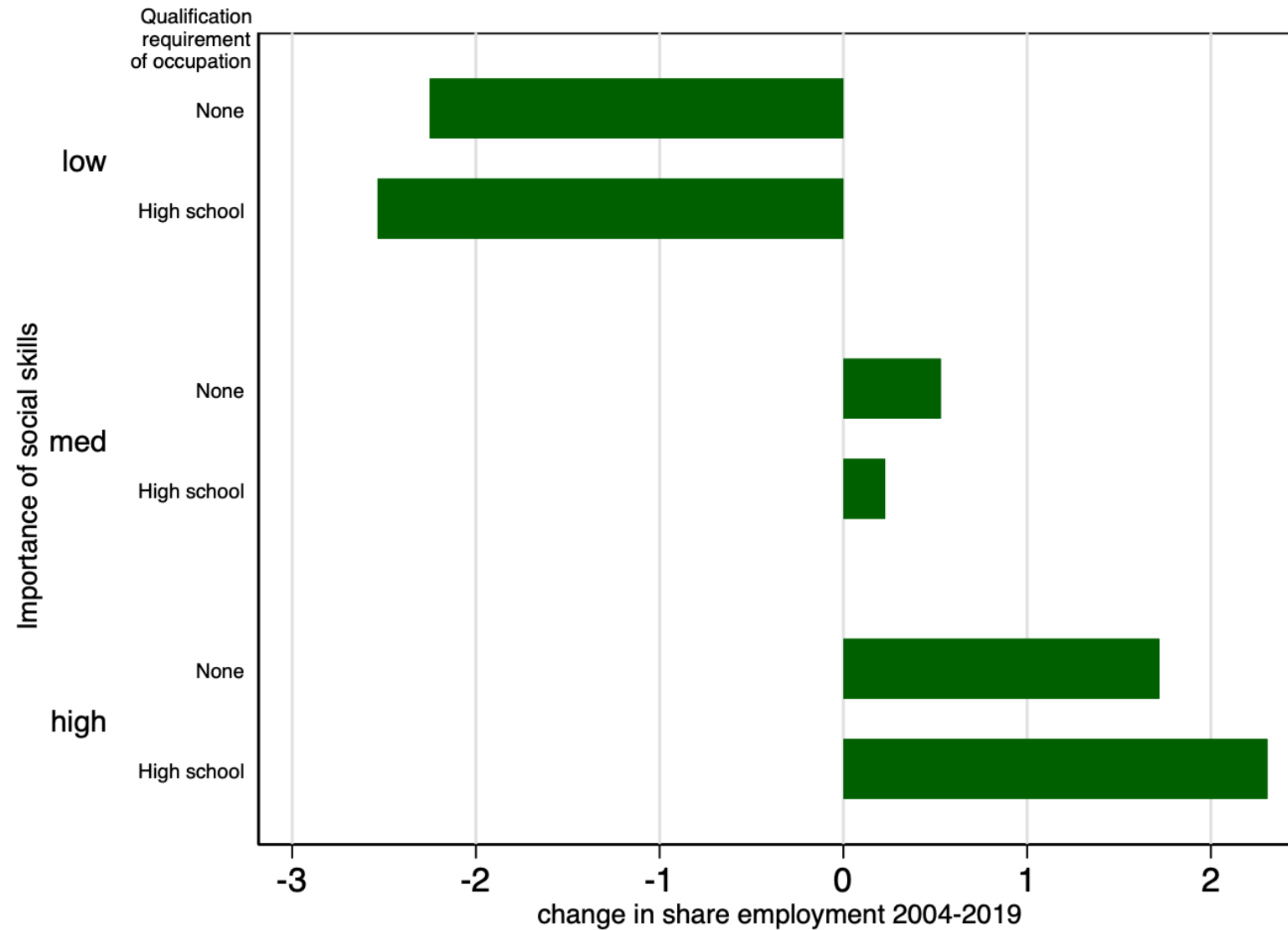
Dig deeper into why some lower education workers do well

- We know employed-based qualification training can deliver returns,
 - but what skills and what kind of employer match works best?
- Our recent research emphasises the importance of social skills
 - the ability to work well in a team and coordinate with co-workers - and an appropriate match to a firm.
- Social skills predict faster wage growth for employees, even among less educated workers
 - idea is based on a 'Task' model of complementarity in production,
 - show cognitive skills still matter!
- Exploiting new data linkages to look at the determinants of individual wage progression
 - ASHE linked to 4-digit description of occupation tasks
 - ASHE linked to Census 2011 and WERS 2011 – education and firm structure
- Ten task measures of social skills...

Ten task measures of social skills

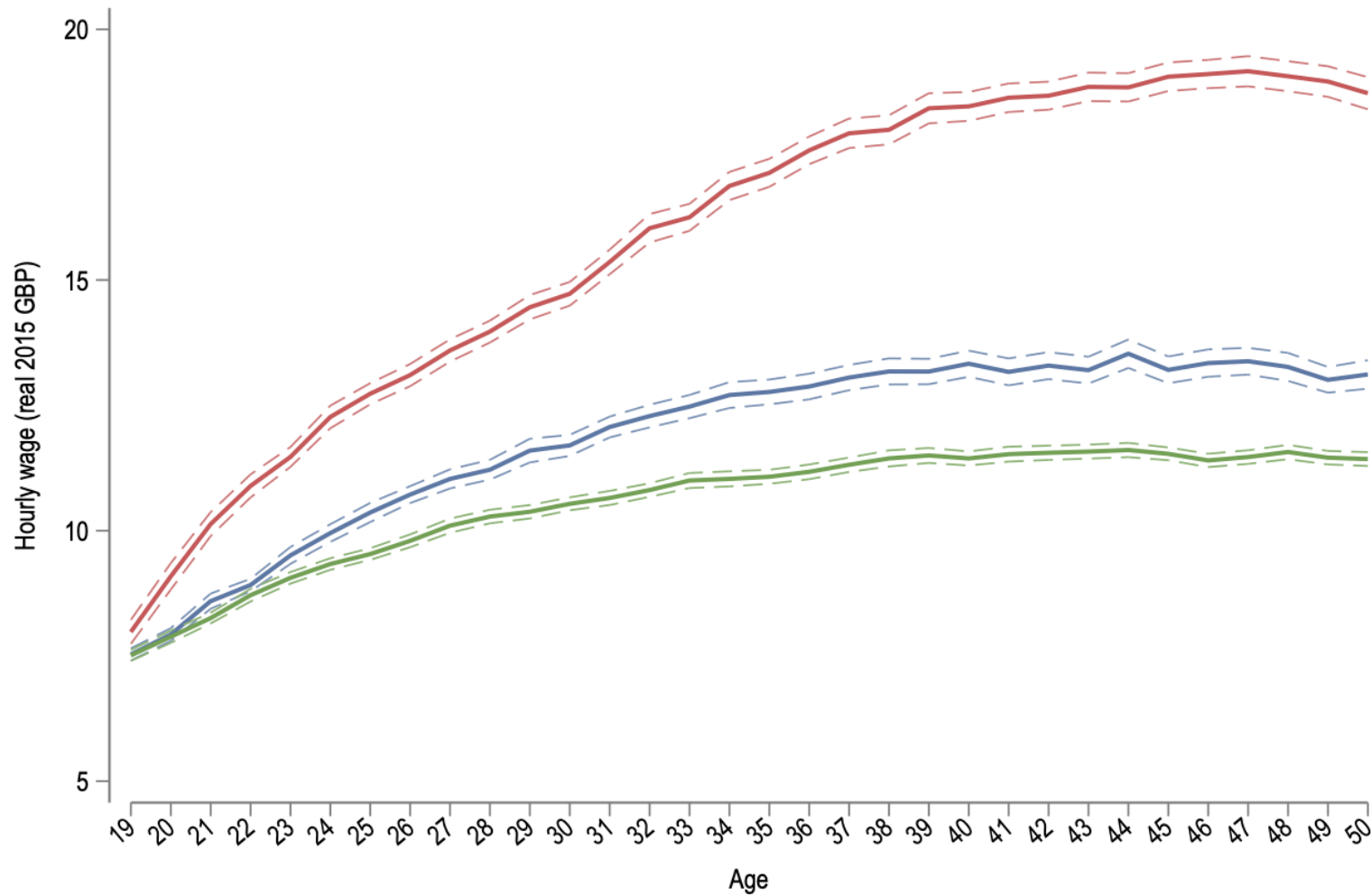
1. **Work with Work-Group or Team:** Importance of working with others in a group or team.
 2. **Coordinate or Lead Others:** Importance of coordinating or leading others in accomplishing work activities.
 3. **Social Perceptiveness:** Awareness of other parties' reactions and extent does she understand why the other parties react as they do.
 4. **Coordination:** The extent does the worker adjust her actions to the actions taken by the other parties.
 5. **Problem Sensitivity:** The worker's ability to tell when something is wrong or is likely to go wrong.
 6. **Active Listening:** The extent does the worker devote full attention to what other parties are saying.
 7. **Responsibility for Outcomes and Results:** Responsible for work outcomes and results of other workers.
 8. **Impact on Others:** Complementarity with firm's other assets.
 9. **Consequence of Error:** The seriousness of a mistake that was not readily correctable.
 10. **Impact of Decisions on Co-workers or Company Results:** The results of decisions on other people or the image or reputation or financial resources of the employer.
- Construct an index (λ) aggregating the dimensions of social skills into a single score using factor analysis. (Do the same for cognitive skills)

Change in employment shares for non-degree workers



Wage progression for workers according to social skill intensity (λ)

Lower-educated men

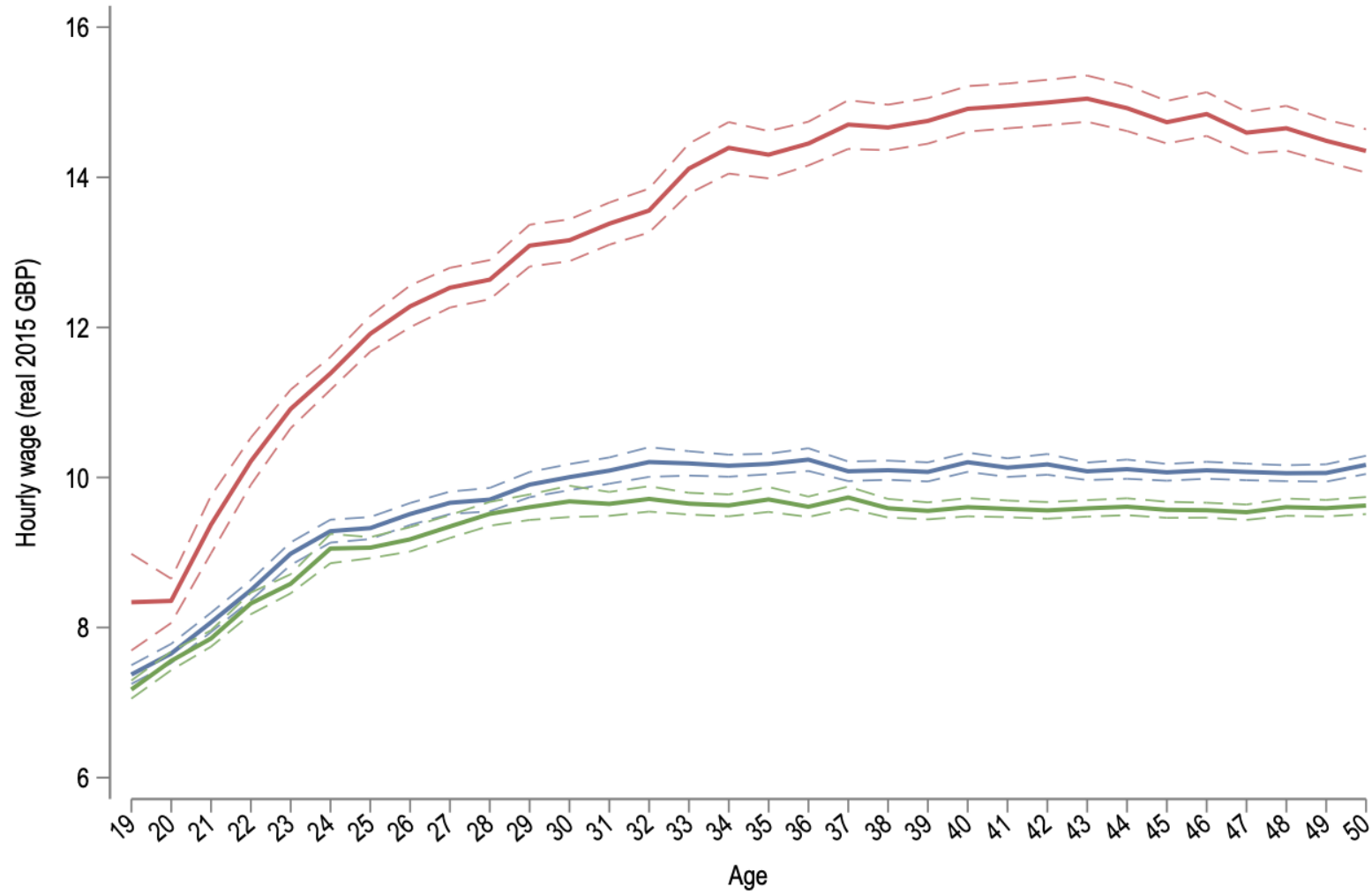


Data: ASHE-Census 2011 linked data, less educated workers aged 19-49

Source: Aghion, Bergeaud, Blundell and Griffith (2024)

Wage progression for workers according to social skill intensity λ

Lower-educated women



Data: ASHE-Census 2011 linked data, less educated workers aged 19-49

Source: Aghion, Bergeaud, Blundell and Griffith (2024)

Worker-level panel data regression results

- Panel data estimator with worker-firm effects and full set of controls; firm size, etc,
 - sample is ASHE-Census link for low-educated male workers aged 19-49, 2004-2019.
- Highlight interactions of social skills with firm tenure,
 - similar specification for cognitive skills.

Worker-level panel data results: Individual wage growth with social skills (λ) and tenure (T)

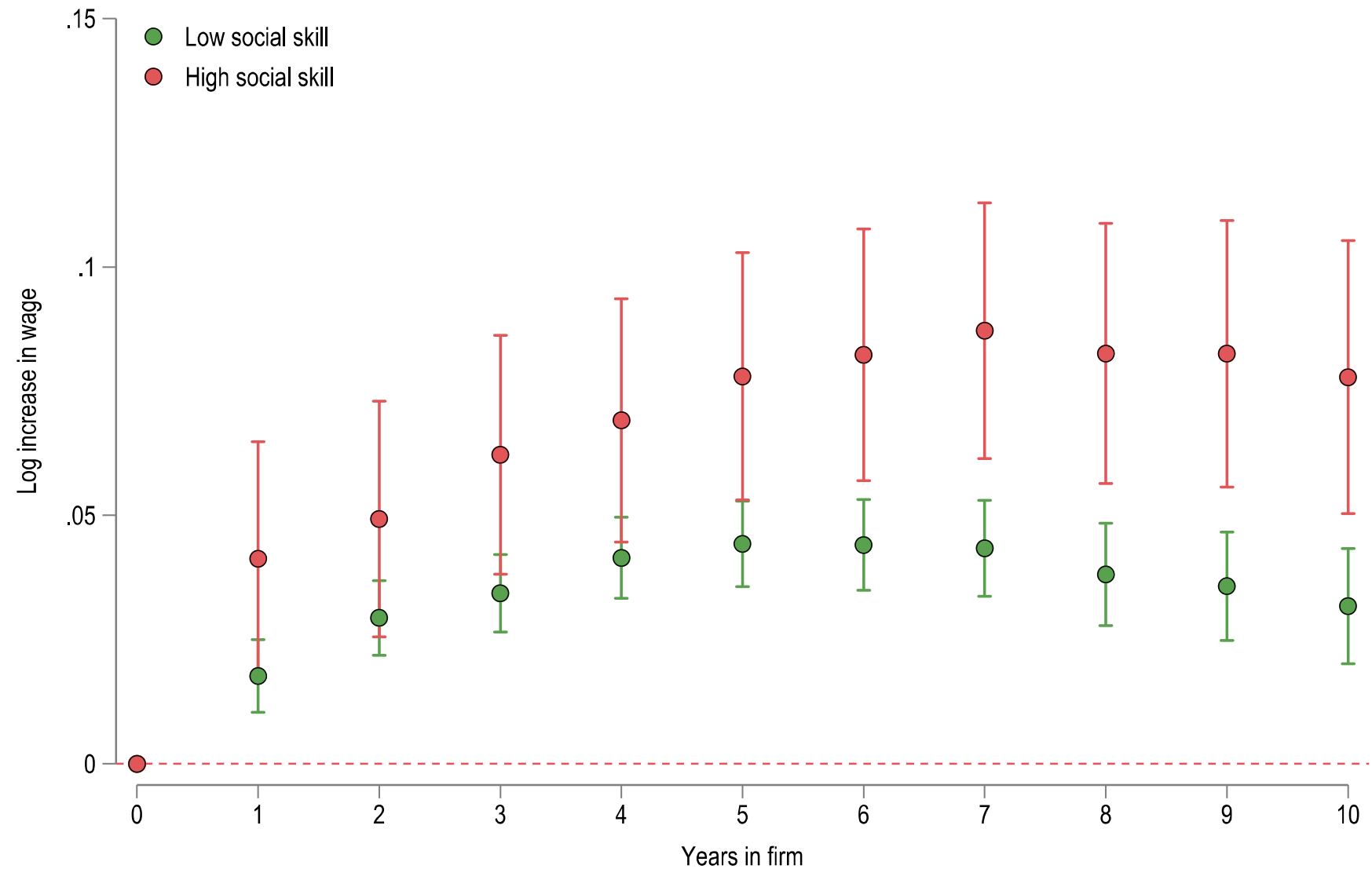
$\log(w_{ijkft})$	(1)	(2)	(3)	(4)	(5)
$\lambda_{j(it)}$	0.05327*** (0.00456)	0.04551*** (0.00435)	0.00596 (0.00716)	0.02530** (0.01142)	-0.0095 (0.01492)
$\lambda_{j(it)} \times T_{ift}$	0.00485*** (0.0014)	0.00489*** (0.00126)	0.00467*** (0.00155)		
$\lambda_{j(it)} \times T_{ift}^2$	-0.0001 (0.00007)	-0.00015** (0.00006)	-0.00016** (0.00007)		
w_{i0} (initial wage)		0.03132*** (0.00072)		0.03133*** (0.00072)	
Full set of controls included					
Fixed-effects:					
Area-year	✓	✓	✓		✓
Firm-Worker			✓		✓
Year			✓		✓
Observations	260012	260012	260012	260012	260012

Source: Aghion, Bergeaud, Blundell and Griffith (2024).

Notes: Sample is male workers aged 18-49 in low-educated occupations in private sector firms 2004-2019.

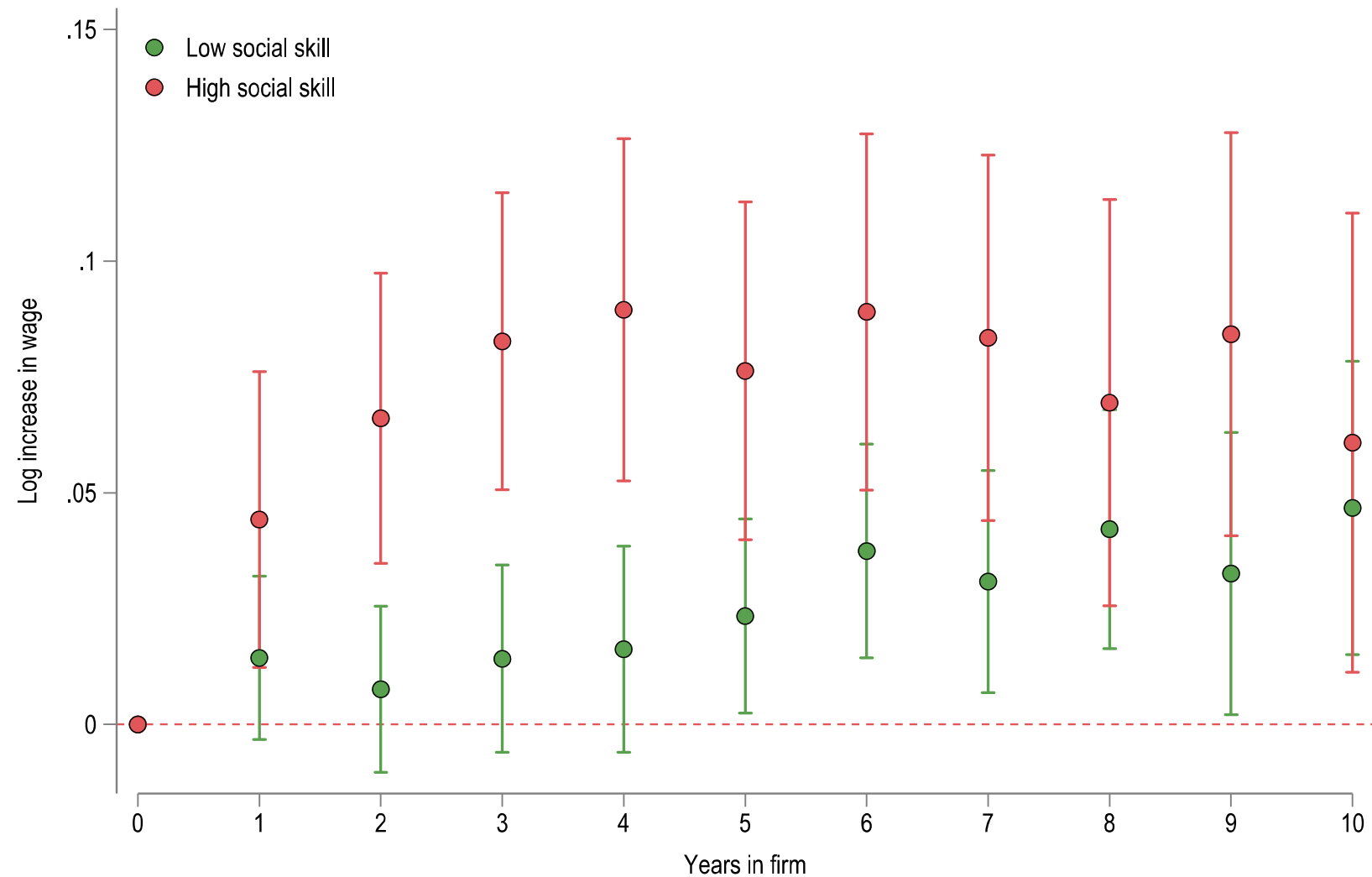
Stars indicate * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Column (5) includes firm tenure dummies....

Estimates of wage progression from working in a high-social skill job



Notes: Panel data estimator with worker-firm effects and full set of controls.
Sample is ASHE-Census link for low-educated male workers aged 19-49, 2004-2019.
Source: Aghion, Bergeaud, Blundell and Griffith (2024). Also results for alternative groups.

Estimates of the additional wage growth from working in a high- λ job in a firm with *a high share of educated co-workers*



Notes: Panel data estimator with worker-firm effects and full set of controls.
Sample is ASHE-WIRS link for low-educated male workers aged 19-49, 2004-2019.
Source: Aghion, Bergeaud, Blundell and Griffith (2024). Also results for alternative groups.

Worker-level panel data regression results

- Panel data estimator with worker-firm effects and full set of controls; firm size, etc,
 - sample is ASHE-Census link for low-educated male workers aged 19-49, 2004-2019.
- Highlight interactions of social skills with firm tenure,
 - similar specification for cognitive skills.
- Find robust wage progression for some lower educated workers
 - this (partly) reflects the value of ‘social skills’,
 - strongly related to job satisfaction and job quality,
 - cognitive and other skills matter too but social skills remain an important dimension for lower educated workers.
- Stronger impact of social skills for lower educated workers in firms with a larger share of *higher educated co-workers*,
 - these workers see more training,
 - also less likely to be out-sourced, *cleaners* as a case study.

Social skills (λ) and training

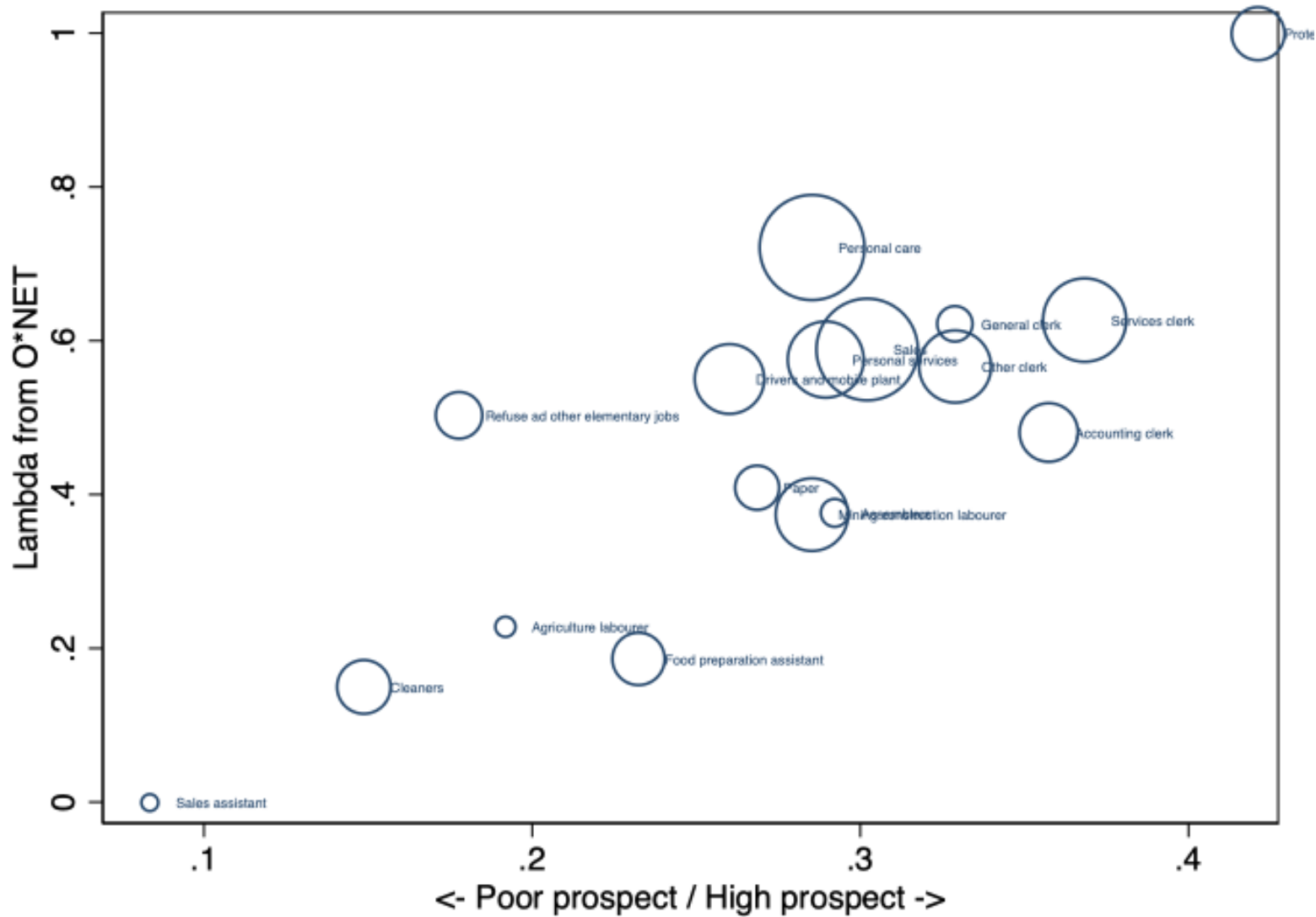


Notes: EWCS. Each dot is a 2-digit occupation, scaled by UK employment.

Source: Aghion, Bergeaud, Blundell and Griffith (2024)

Social skills and good jobs

EWCS: 'My job offers good prospects for career advancement', low-educated



Notes: EWCS. Each dot is a 2-digit occupation, scaled by UK employment.

Source: Aghion, Bergeaud, Blundell and Griffith (2024)

Some take-aways ...

Low productivity and little overall wage progression for lower educated workers

- employment alone is not enough to escape poverty, low earnings, and generate progression,
- strongly diverging life-cycle wage profiles by education,
- low rates of on-the-job training for lower educated workers,

but.....

- find significant returns for employer-based qualification training, and
- low-educated workers with 'social skills' see improved progression, with more training and longer firm tenures,
- especially in firms with a large share of higher educated co-workers – tend to be productive, and growing, 'frontier' firms,
- these are jobs considered 'good jobs' which involve social interactions, social skills decline less with age.

Policy toward productivity and progression: Beyond tax credits & the minimum wage

- **In-work benefits** - well targeted to low earning families but do little for pay progression.
- **Minimum wages** - raise hourly wages, less well targeted and little incentive for progression.
- Cannot continue to rely exclusively on these as the main policy levers.

Can we put flesh on the idea of a 'good jobs' agenda?

- **Training** - a focus on the firm-based accredited skills, particularly social skills, that enhance productivity and progression, complementing new technologies.
- **Place-based policies** – policies, including skills policies, to attract entry of frontier firms and firms that employ a mix of educational groups, -> policies that are essential for agglomeration, progression and to reverse educational flight.
- **Competition policy, tax policy and VC finance** – improved incentives for entry of productive businesses and to encourage innovation.
- Policies that can also improve the opportunities for graduates outside London and the SE.

Thanks to UKRI/ESRC for funding the underlying IFS research.

UKRI Productivity Institute Programme Project @ ESRC Centre at IFS

Productivity, Wages and the Labour Market

Project start date: April 2022; completed by end March 2025.

Three workstreams:

- (i) earnings progression, labour market institutions, and ageing,
- (ii) business ownership, taxation and self-employment,
- (iii) geography, housing and labour market mismatch.

Overall objectives: New data linkages, new analysis, policy impact, and capacity building.