

Inequality, Redistribution and the Labour Market

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ECINEQ Keynote Lecture

Ninth Meeting of the Society for the Study of
Economic Inequality

LSE

July 8th 2021

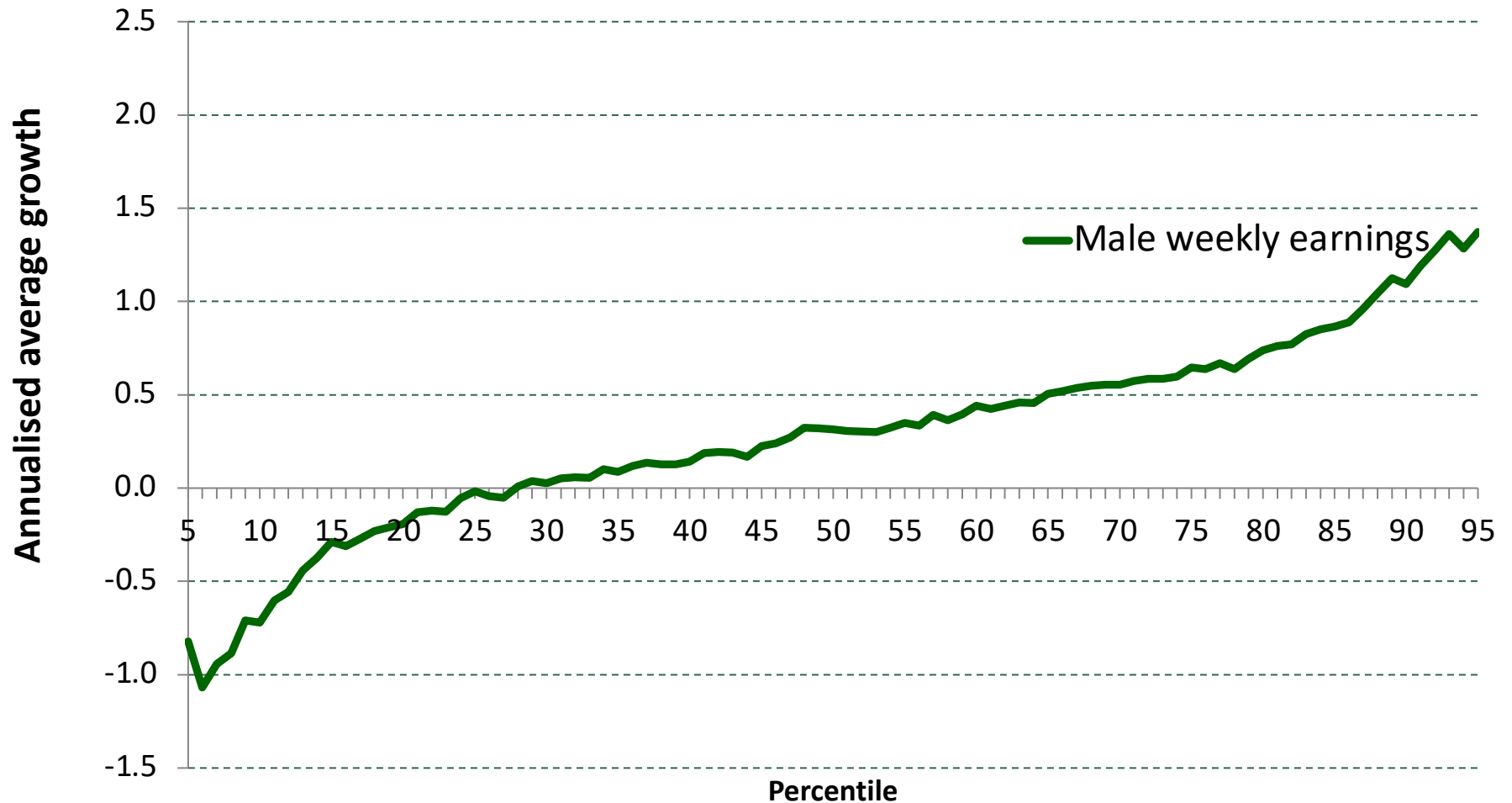
Background motivation

- The structure of work and of families has changed over the last three decades
 - growing earnings inequality for men and women, with adverse labour market ‘shocks’ for the low educated, especially men,
 - poor wage progression for the lower educated and those in part-time work,
 - employment is (increasingly) not enough to move families out of poverty and for longer-run self sufficiency.
- Since the financial crisis the squeeze on living standards has brought these inequalities into sharper focus.
- Covid has exacerbated existing labour market inequalities and created new ones.
- Draw on my research for the IFS-Deaton Review: Inequalities in the 21st Century
<https://www.ifs.org.uk/inequality/>

The focus of this keynote lecture

- We can't address all the concerns about low wages, poor wage progression and earnings inequality by tax and welfare alone,
 - the challenge is how best to balance tax and welfare-benefit policy with other policies such as human capital policies, minimum wages and labour market regulation and place-based policies.
- Focus here is on the key role played by the increasingly poor wage progression for lower educated workers in understanding earnings inequality and for designing policy responses,
 - highlighting the role of labour market attachment, part-time work, training, soft-skills and firms.
- Finally, bringing these together with the discussion of in-work benefits, family incomes, and assortativeness to build an appropriate policy mix.
- The UK is the running example... first, some background evidence =>

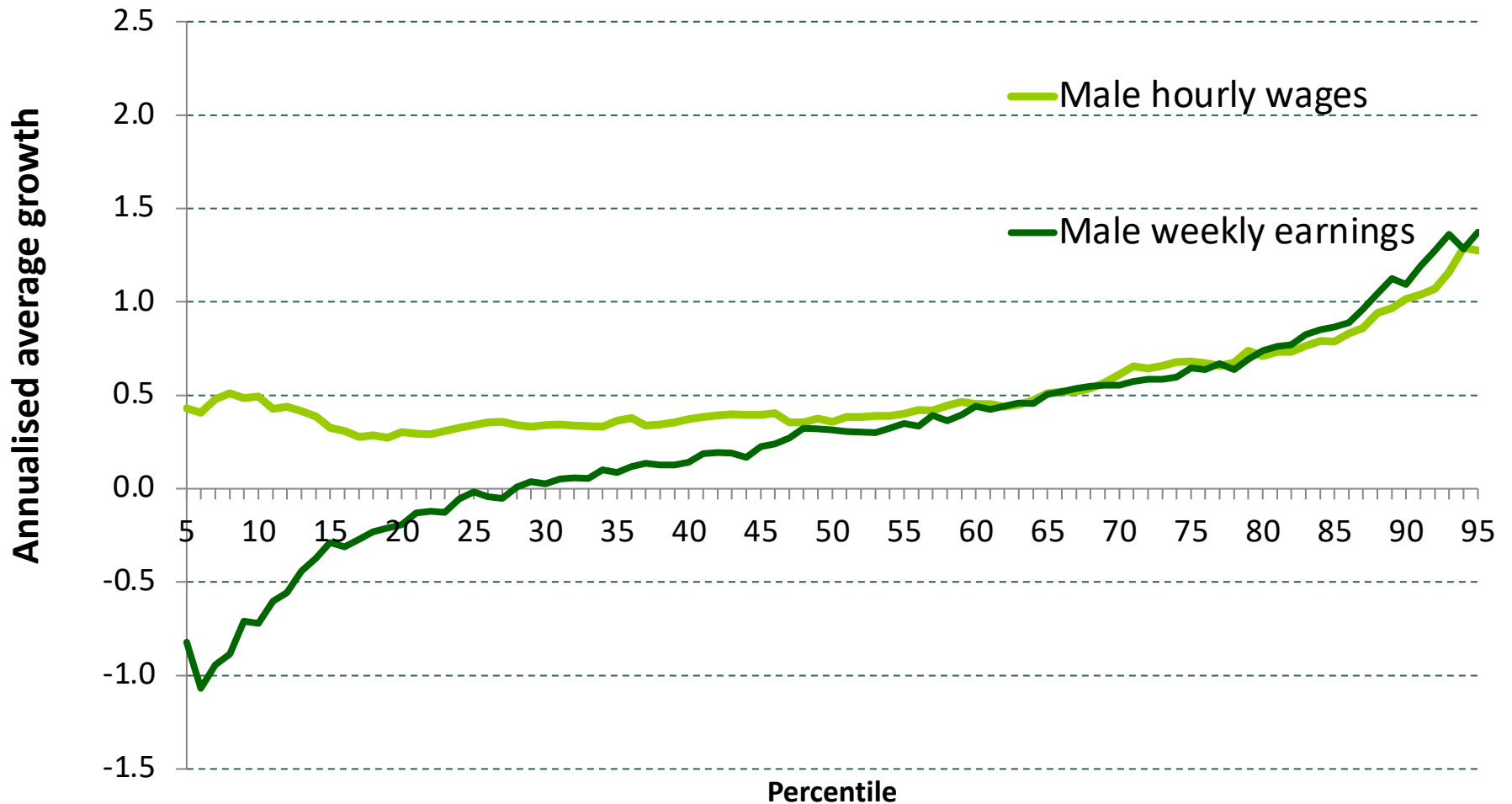
Growth in UK male weekly earnings: 1994/95 – 2016/17



Source: Blundell, Joyce, Norris Keiller and Ziliak (2018)

Data used is UK FRS 1994-95 and 2016-17, not in full time education and aged <64

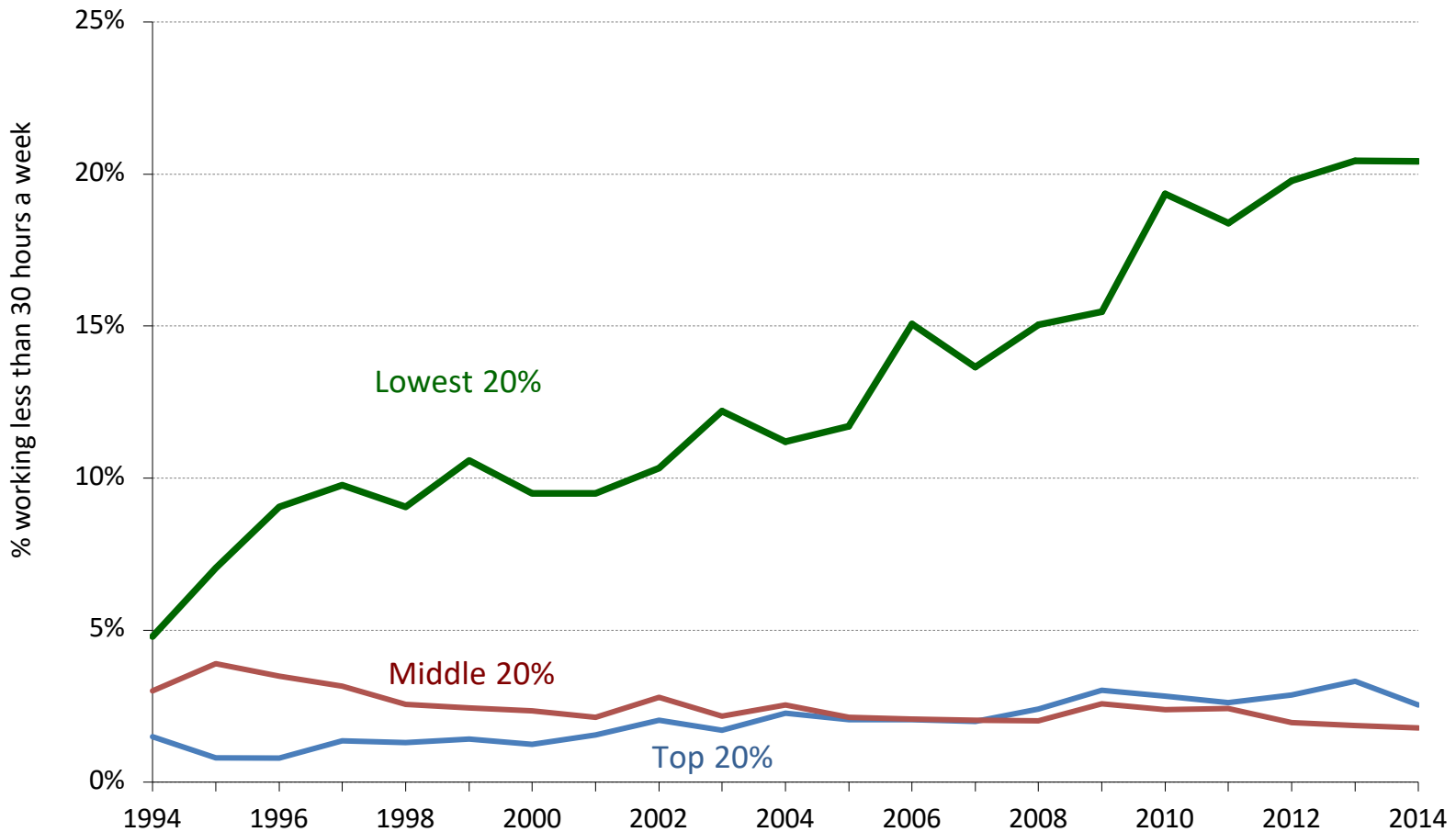
Growth in UK male weekly earnings and hourly wages: 1994/95 – 2016/17



Source: Blundell, Joyce, Norris Keiller and Ziliak (2018)

Data used is UK FRS 1994-95 and 2016-17, not in full time education and aged <64

Proportion of men working less than 30 hours in the UK by hourly wage quintile – aged 25-55



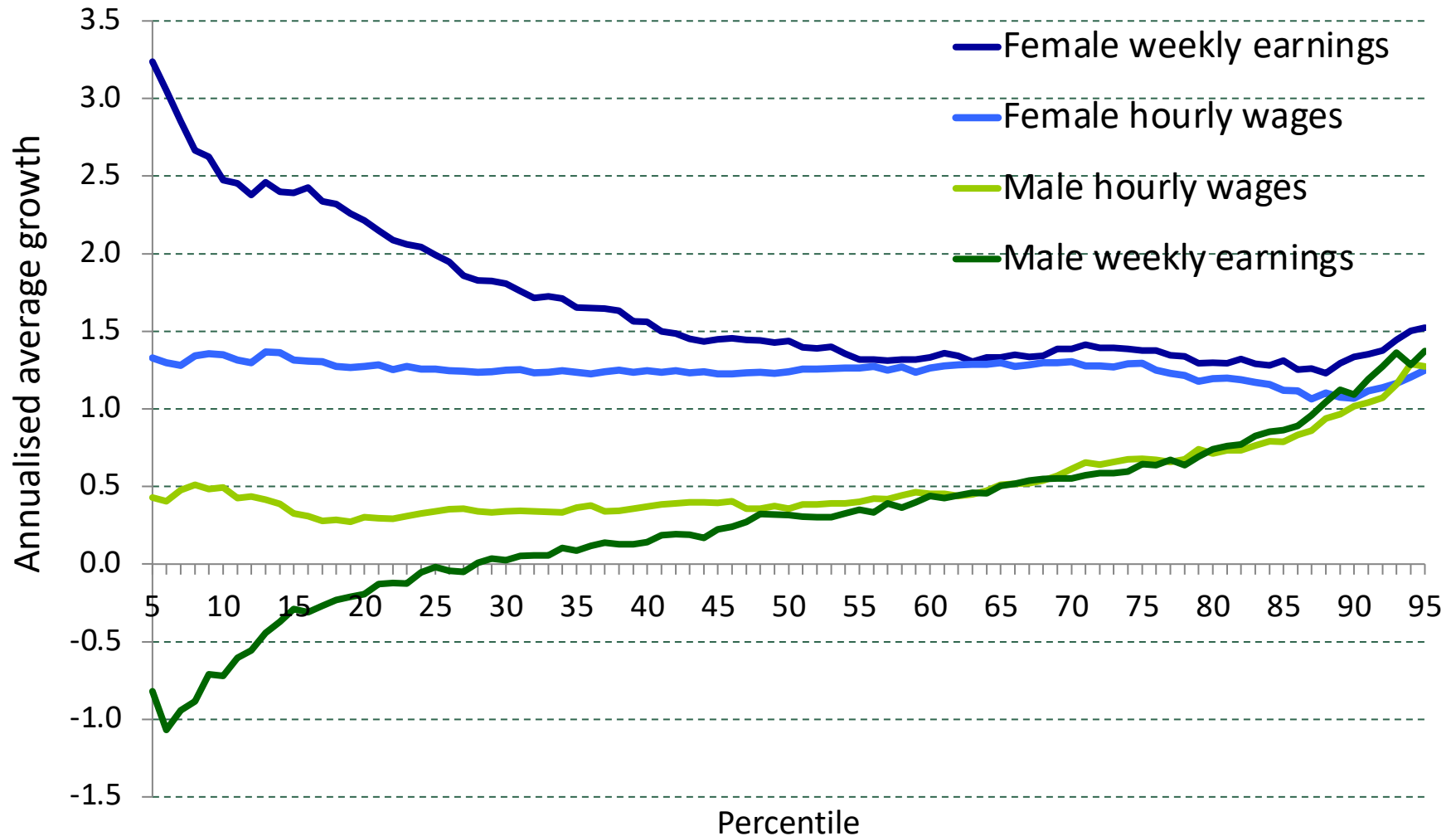
-> Stronger growth of PT work for the self-employed where there has been a growing rate of low earning solo self-employed and part-time hours.

Source: IFS calculations using Labour Force Survey

Notes: LFS: Male employees aged 25-55.

Very different growth in female hourly wages and weekly earnings:

UK 1994/95 – 2016/17

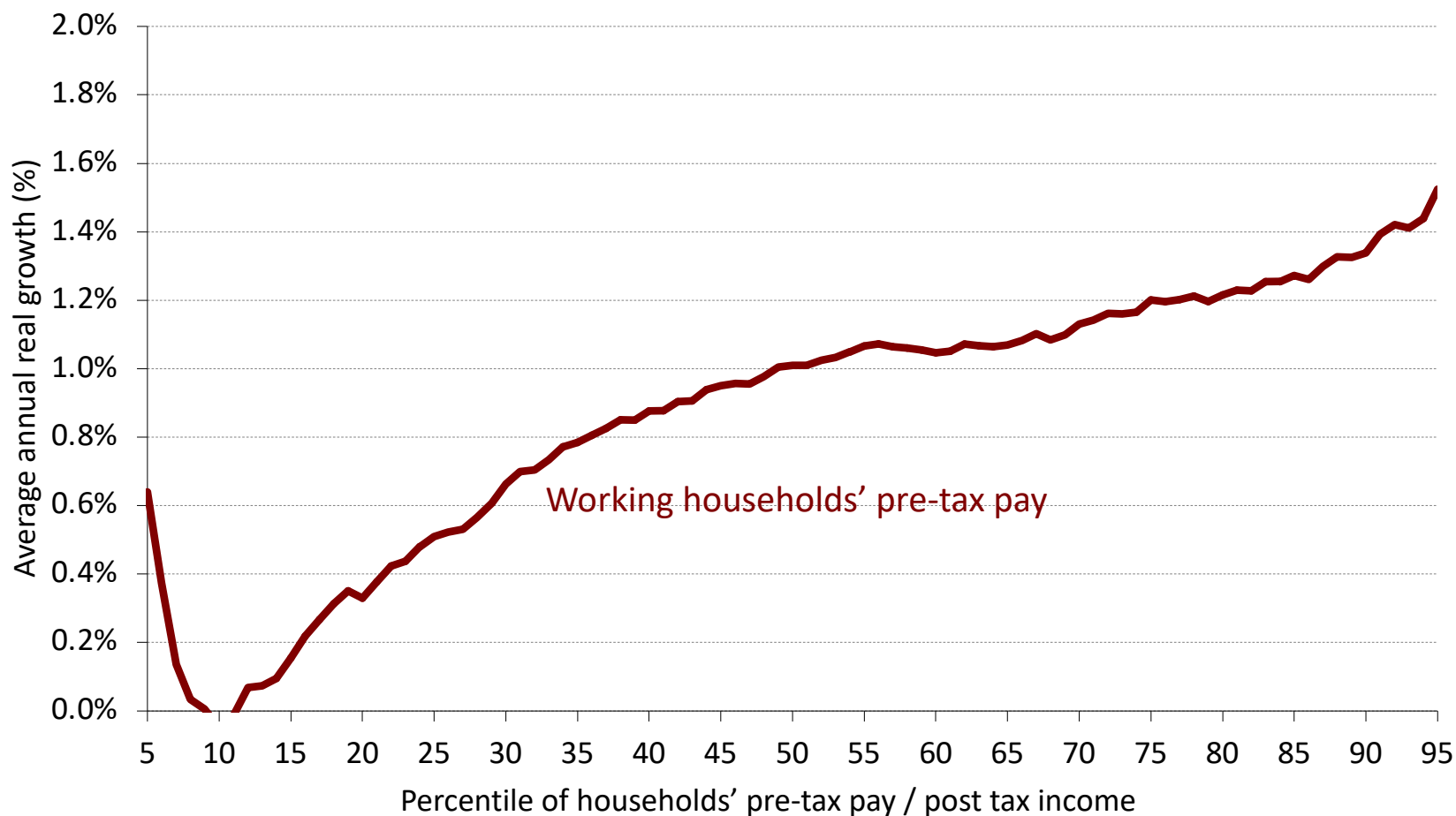


-> But assortative partnering and the low female earnings share implies this has not improved between family earnings inequality.... Similar results in the US.

Source: Blundell, Joyce, Norris Keiller and Ziliak (2018): Data used is FRS 1994-95 and 2016-17.

Family Earnings and Family Incomes in the UK:

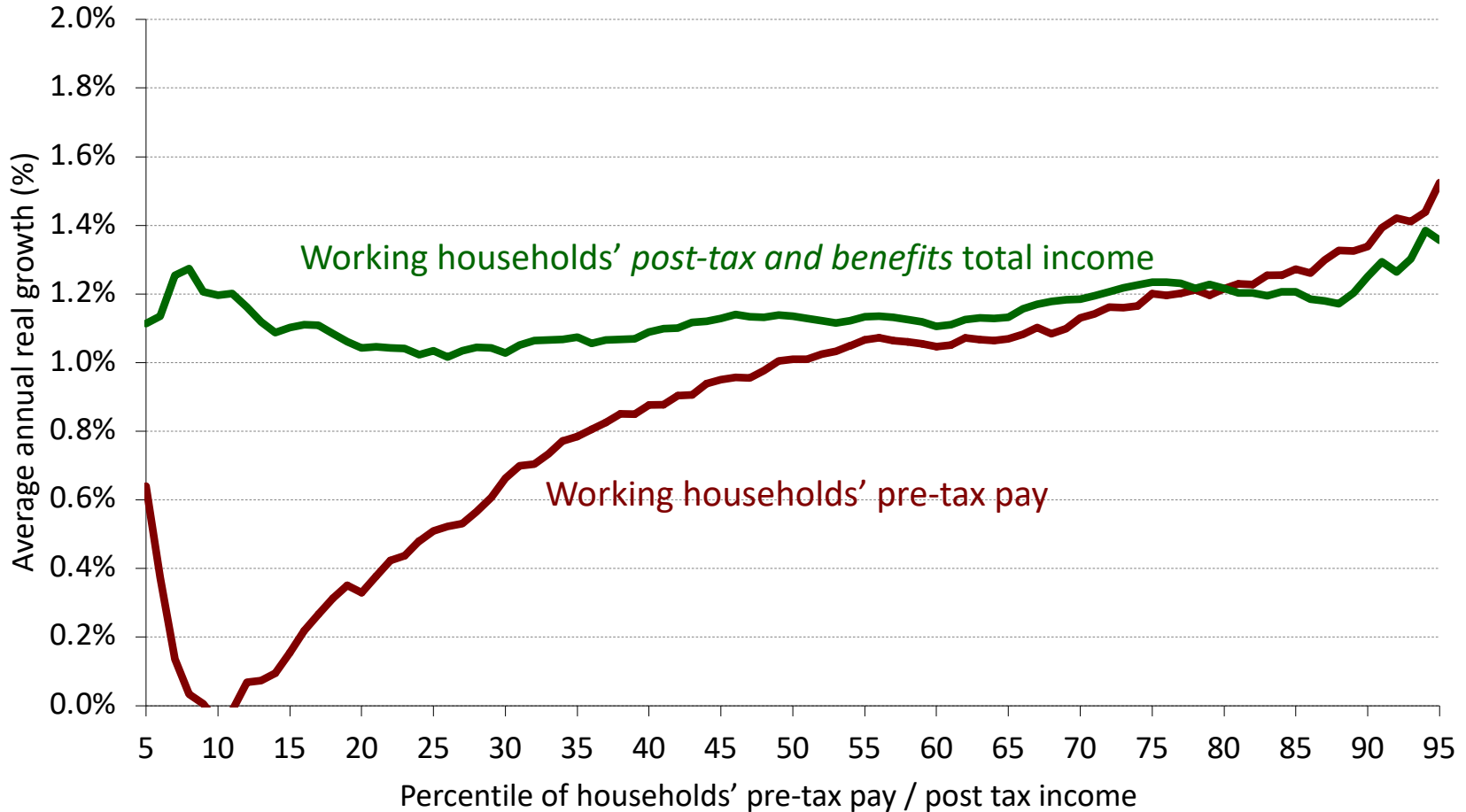
Household income growth for working households 1994/5 to 2016/7



Notes: Includes self-employment income and self-employed households.
Family Resources Survey. All income measures are equivalised.
Source: Blundell, Joyce, Norris-Keiller and Ziliak (2018)

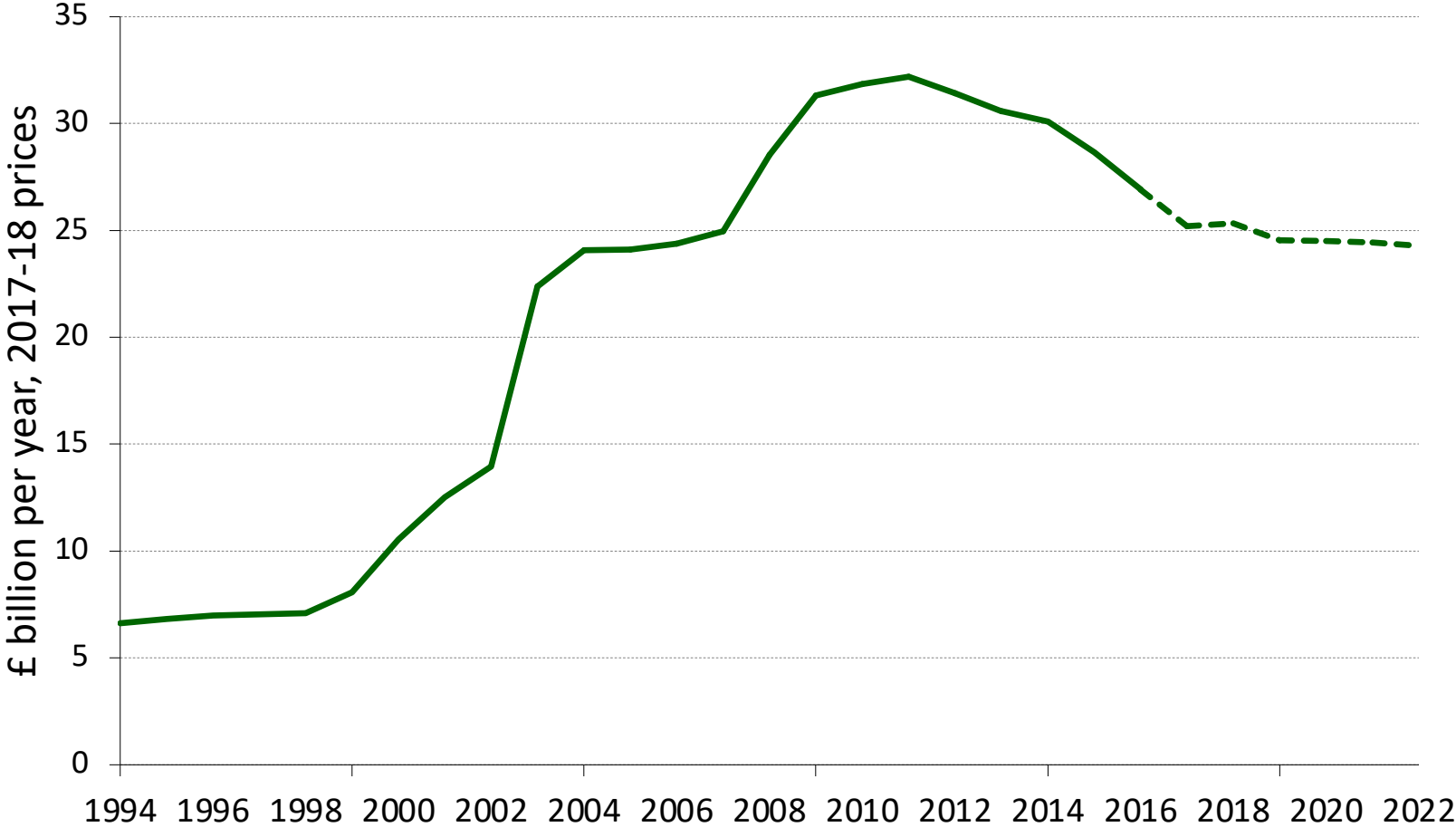
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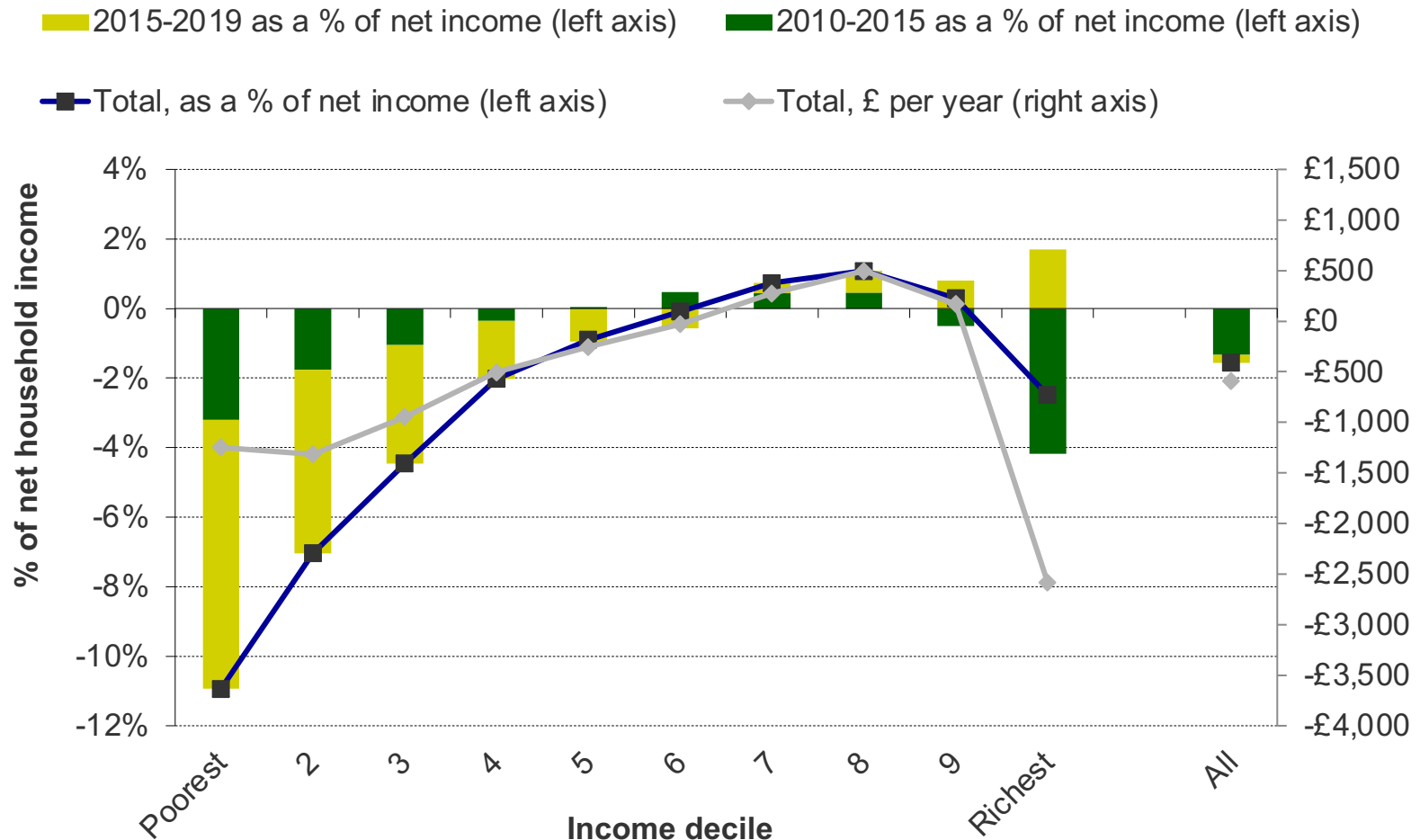
Real spending on work-related tax credits and equivalents in the UK



Source: IFS calculations from DWP (UK) benefit expenditure tables.

Distributional impact of personal tax/benefit reforms in the UK

Tax and benefit reforms, April 2010 to April 2019



Note: Assumes full take-up of means-tested benefits and tax-credits. Policies rolled out are Universal Credit, HB reductions and the 2-child limits.

Source: IFS calculations using the IFS micro-simulation model run on the 2017–18 FRS.

Focus here on three interrelated issues for labour market inequality

Wage progression is the common theme:

1. The role of education, labour market attachment/part-time work, and gender.
2. The role of human capital investments during working life - learning-by-doing and (access to) on-the-job training.
3. The role of skills and firms - what 'attributes' among the lower educated are valued by firms and which types of firms value them most - soft skills?
 - draw on recent work on wage progression in UK, exploiting household panel data and employer-employee matched data,
 - bring this analysis together with the tax and welfare-benefit system to think through an appropriate policy mix,
 - policies toward wage progression and effective human capital investments for the lower educated have become even more urgent for the post-covid labour market.

Findings

Little earnings progression for lower educated workers:

- employment alone is (increasingly) not enough to escape poverty and low earnings
- diverging wage profiles by education and part-time work,
- low rates of on-the-job training for lower educated workers,
- female employment has not reversed rising family earnings inequality,
- but some lower educated workers do well, those with 'soft skills' see improved progression, with more training and longer tenures.

- The policy mix:

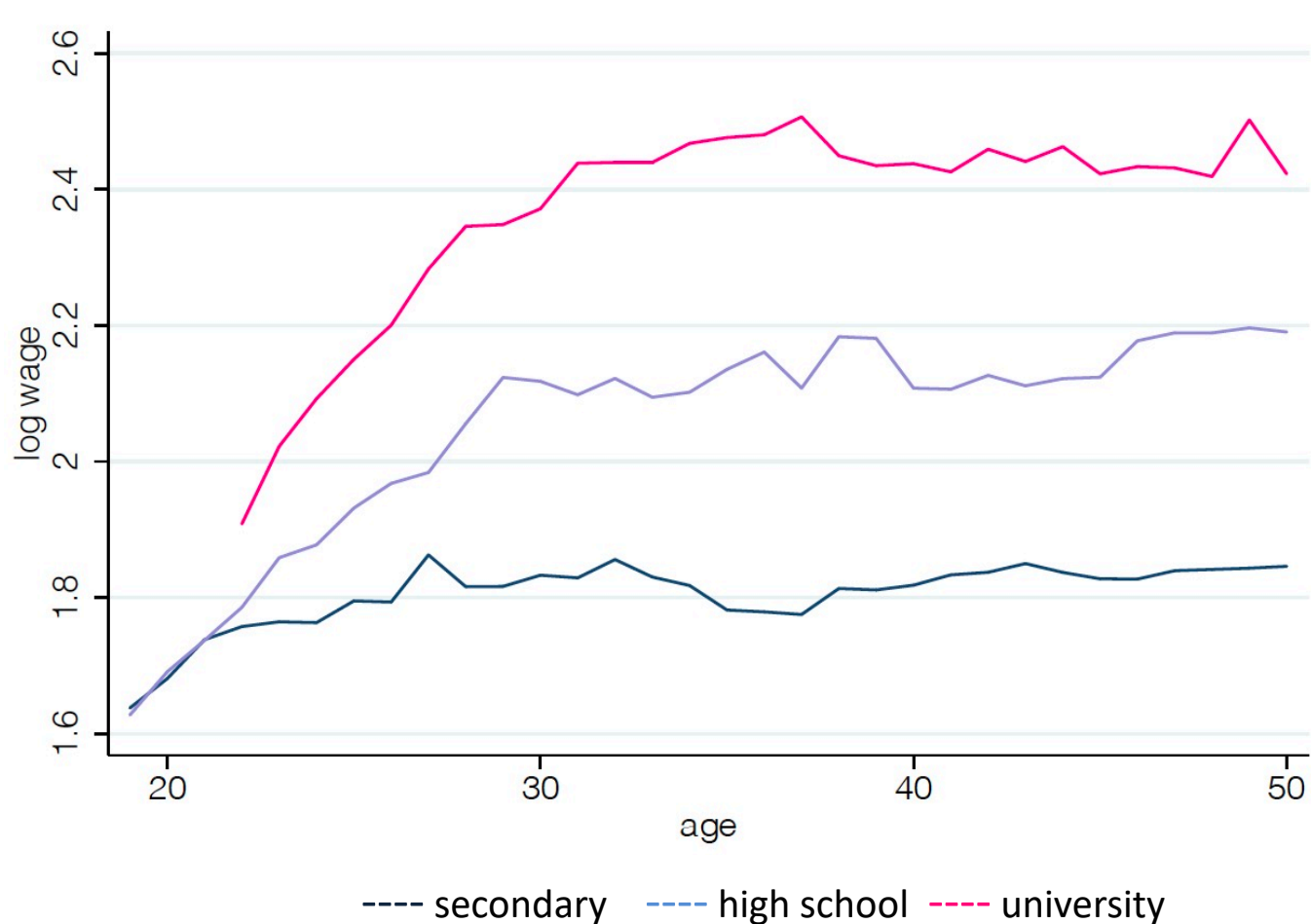
- **Earned income tax credits?** - encourage employment, well-targeted to low earning families but, on their own, produce little wage progression or 'self-sufficiency'.
- **Human capital/training?** - focus on firm-based qualification training with an emphasis on 'soft skills' for lower educated - relate to the 'good jobs' agenda.
- **Minimum wage?** - less well-targeted, due to family earnings and falling male hours. Should be a complement to tax credits.
- **Regulation, etc?** - line up benefit eligibility, training and effective tax rates for self-employed.

Data – 5 key features (UK data is far from perfect!)

1. UK household panel, UK HLS 1991-
 - measures of education qualifications, detailed measures of individual training, labour supply, childcare, demographics, incomes and assets
 - linked to administrative data on earnings.
2. Linked life histories capture choices from age 16
 - detailed family background variables, including measures of parental education, number of siblings, sibling order, whether lived with parents when aged 16, books at home as a child, financial conditions of family, etc.
3. Geo-coded data mapping into local labour markets and industrial composition.
4. IFS ‘taxben’ budget constraint simulation model for every family in every year
 - Taxes: personal income tax, NI, council tax, working tax-credits (in-work benefits)
 - Benefits: child benefit, income support, housing benefit, etc.
5. Matched employer-employee data on worker characteristics (occupation, ..) and firm characteristics (e.g. size, R&D, location, share of high educated,...)
 - ASHE, ARD and BERD from 2004 -

It's depressing at the bottom: wage-age profiles by education and age

- returns to experience appear *complementary* with education

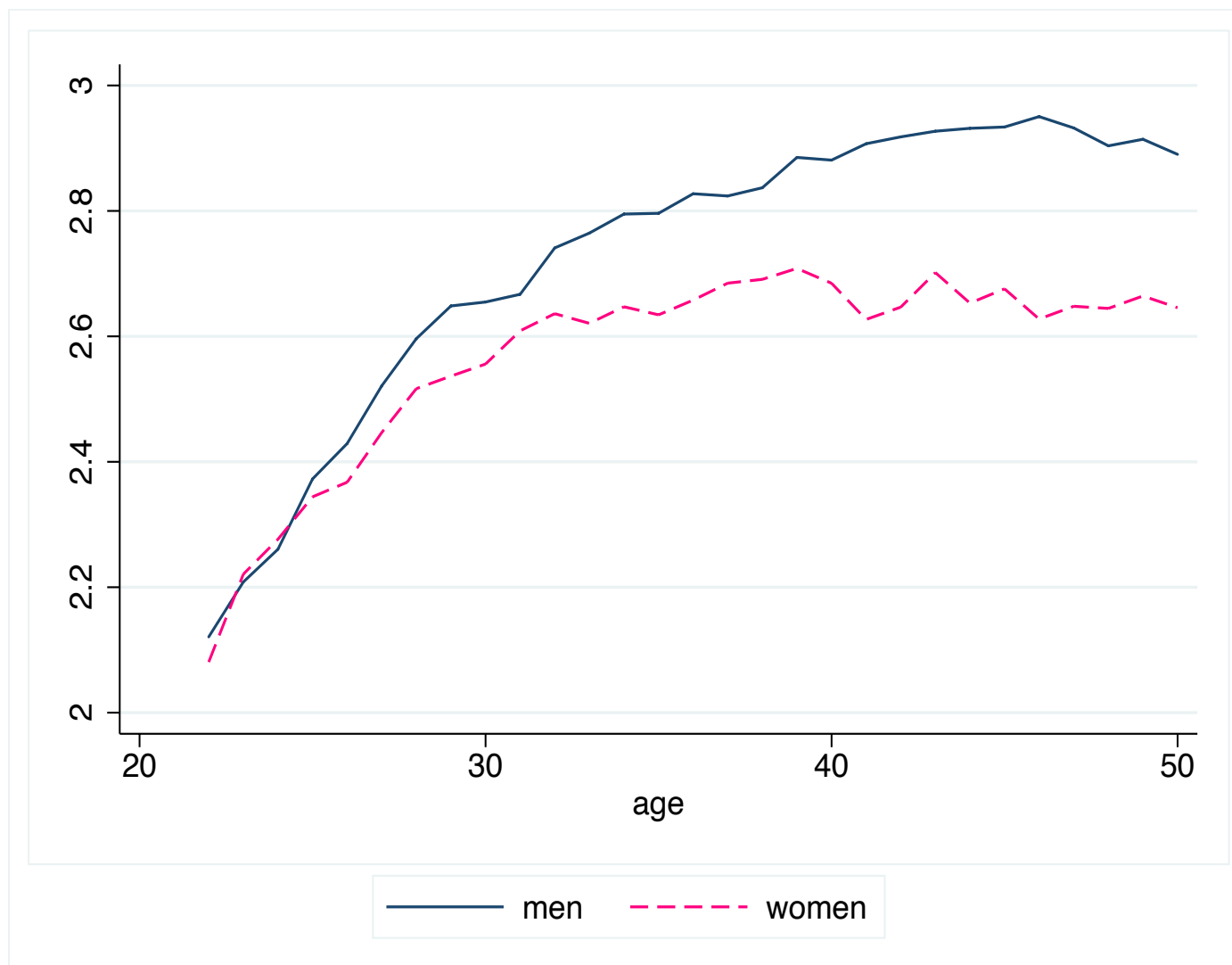


See similar for UK men and for recent cohorts in the US and France.

Source: Blundell, Costa-Dias, Meghir and Shaw (2016, updated)

Notes: Average log hourly wage, Women, UK HLS, 1991 -

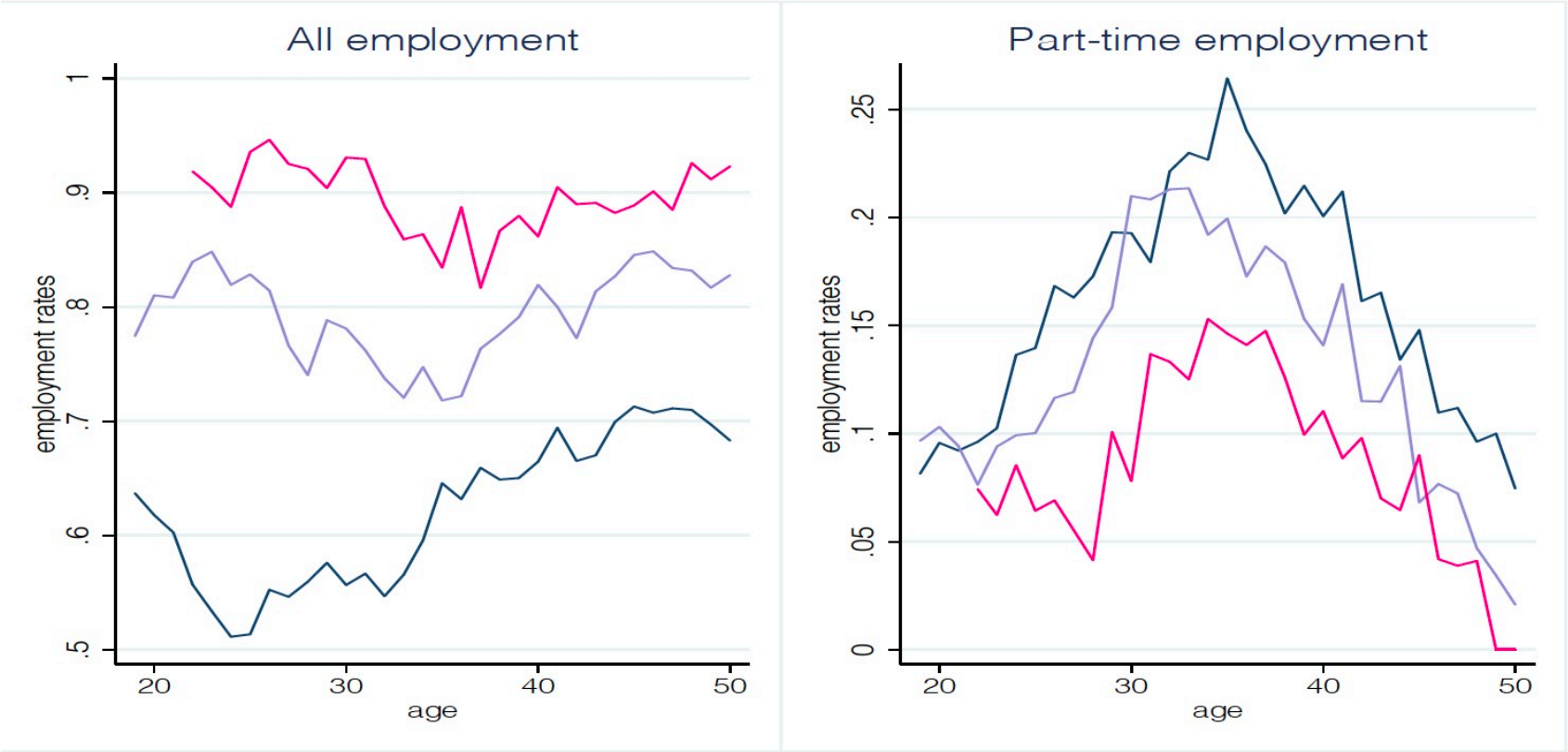
Wage-age profiles by for university graduates by gender



Source: Blundell, Costa-Dias, Meghir and Shaw (2016), updated.

Notes: Log hourly wage, College graduates, UK HLS, 1991- .

Female employment and part-time work by education



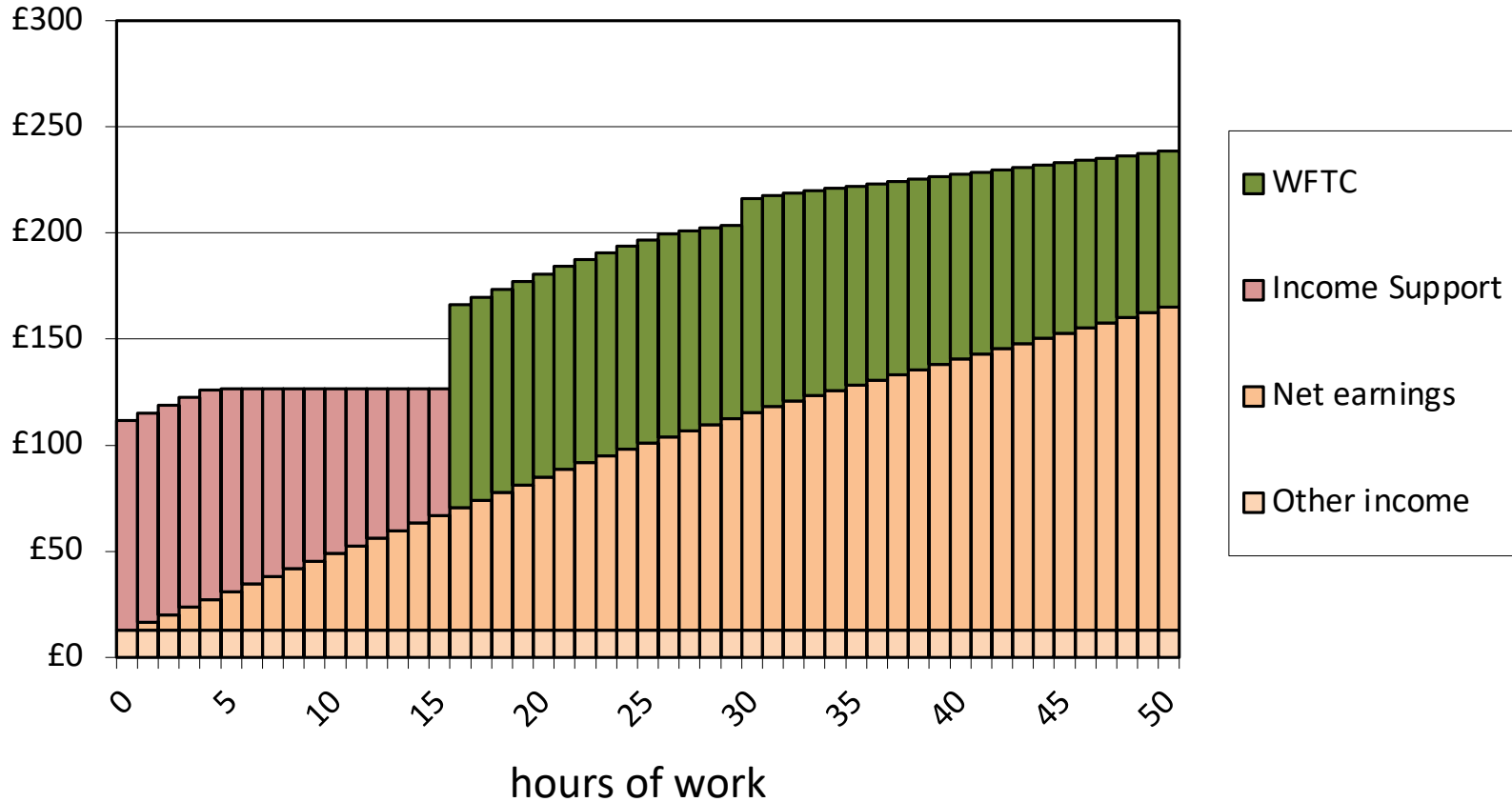
---- secondary - - - - high school - - - - university

Source: Blundell, Costa-Dias, Meghir and Shaw (2016), updated UK HLS

Notes: Plots are for all women. Note too the growth of part-time work for lower educated men.

The interaction between taxes, tax credits and benefits

Low wage lone parent with one child, weekly amount, 2000

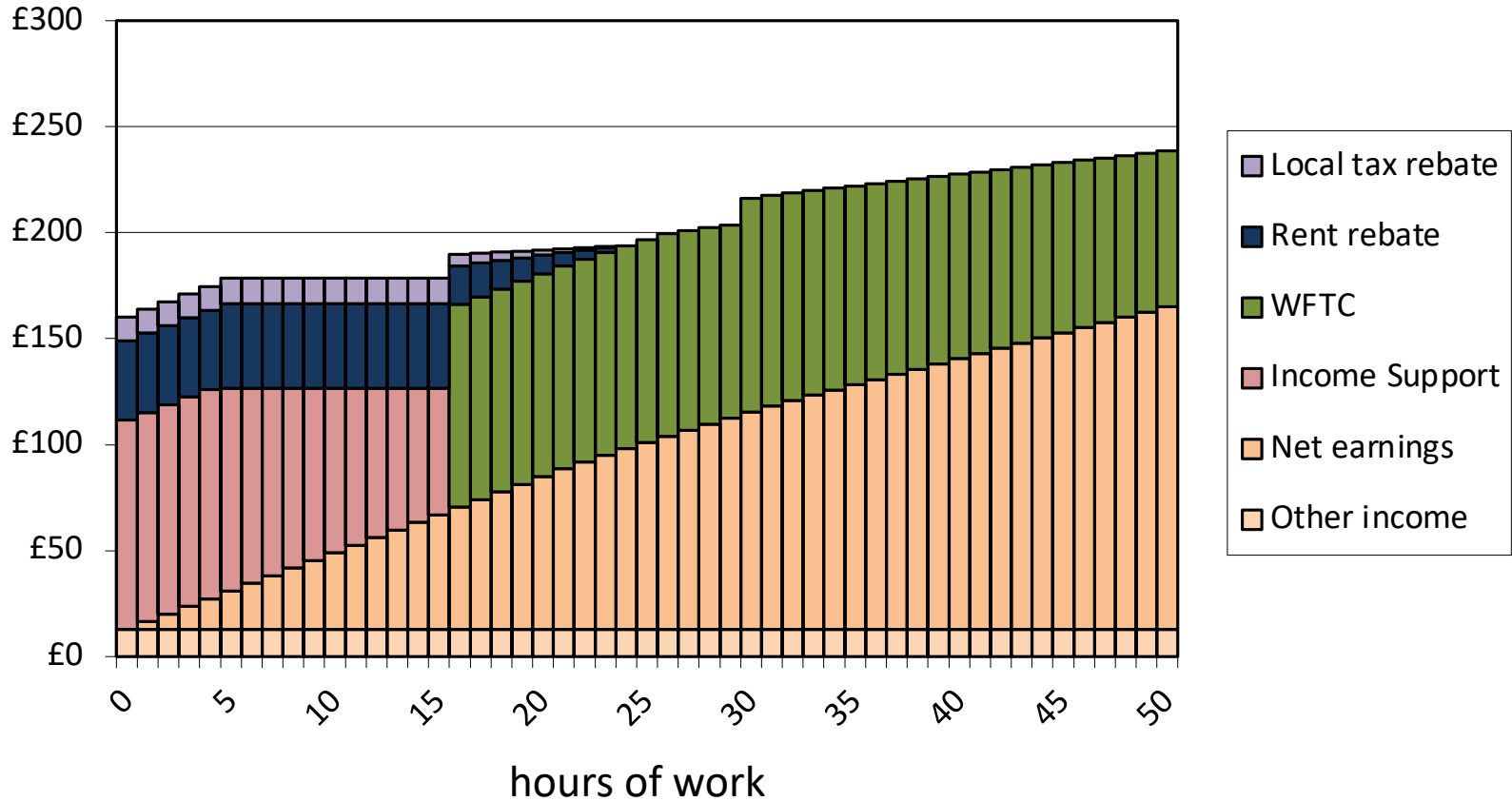


- motivation for the *Working Families Tax Credit* was to preserve labour market attachment, reduce skill depreciation and attenuate the gender gap
- note the *minimum hours eligibility* rules that focuses incentives on part-time work (not in UC).

IFS Calculations. Notes: Single parent, wage £6.50/hr, 1 children, no other income, £80/wk rent. Ignores council tax and rebates

The interaction between taxes, tax credits and benefits

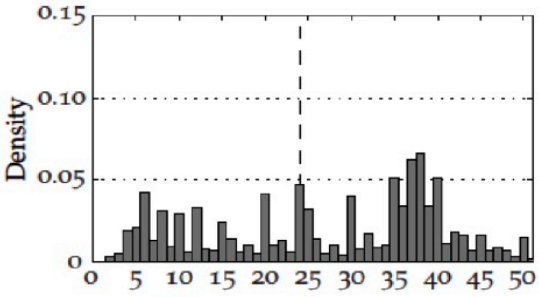
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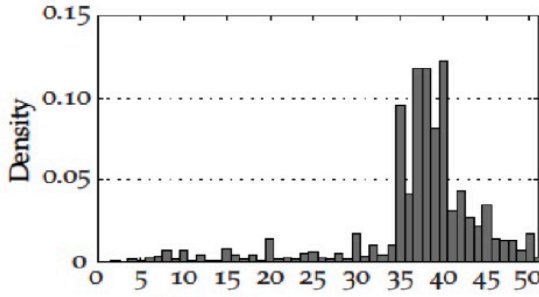
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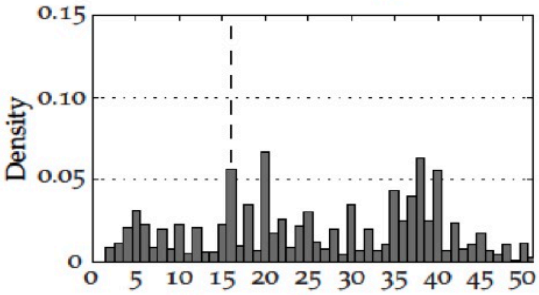
Single Women, lower educated (aged 18-45): Bunching at Tax Kinks



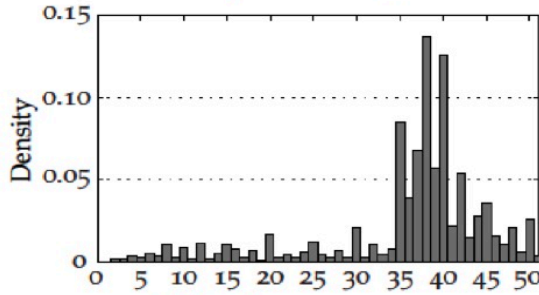
(a) Lone mothers, 1991



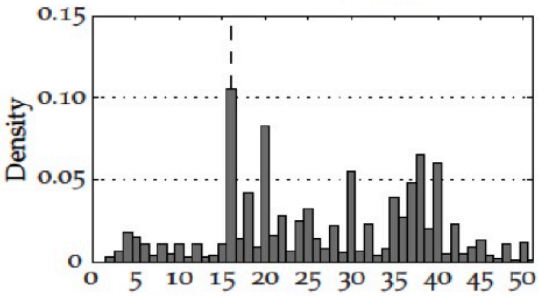
(b) Single women, 1991



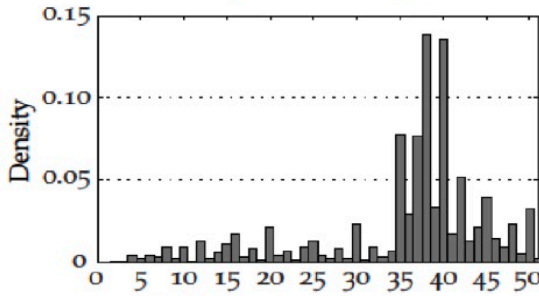
(c) Lone mothers, 1995



(d) Single women, 1995



(e) Lone mothers, 2002



(f) Single women, 2002

Source: Blundell and Shephard (2014)

Wage progression and work experience: panel data model

- log wage for individual i of education s and age t

$$\ln w_{ist} = \ln W_{st} + \gamma_{0s}(x_i) + \gamma_{1s}(x_i) \ln(\kappa_{ist} + 1) + \omega_i + v_{ist} + \xi_{ist}$$

where

education:

$s = [1,2,3]$ [secondary (16), high school (18)
university (21)]

baseline Mincer effect:

$\ln W_{st}$

family background factors:

x_i cohort, family financial circumstances, books in home, ..

experience capital:

$\kappa_{ist} = \kappa_{is,t-1}(1 - \delta_s) + \alpha_{0s}FT_{i,t-1} + \alpha_{2s}PT_{i,t-1}$

individual heterogeneity:

ω_i

persistent shocks:

$v_{ist} = \rho_s v_{is,t-1} + \mu_{ist}$

random shocks:

ξ_{ist}

endogeneity:

selection, part-time and experience, use simulated tax instruments.

embedded within a dynamic discrete choice model of employment and part-time work.

Wage equation estimates: women, UK HLS

	Secondary	High School	University
baseline at age 25	7.19 (.25)	8.64 (.17)	10.55 (.31)
returns to experience $\gamma_{1,s}$.15 (.02)	.23 (.02)	.31 (.03)
autocorrelation coef ρ_s	.92 (.03)	.91 (.03)	.88 (.02)
depreciation rate δ_s	.08 (.02)	.08 (.01)	.07 (.02)
accumulation of HC in PTE $\alpha_{2,s}$.13 (.02)	.10 (.02)	.12 (.03)

$$\ln w_{ist} = \ln W_{st} + \gamma_{0s}(x_i) + \gamma_{1s}(x_i) \ln(\kappa_{ist} + 1) + \omega_i + v_{ist} + \xi_{ist}$$

$$\kappa_{ist} = \kappa_{is,t-1}(1 - \delta_s) + FT_{i,t-1} + \alpha_{2s}PT_{i,t-1}$$

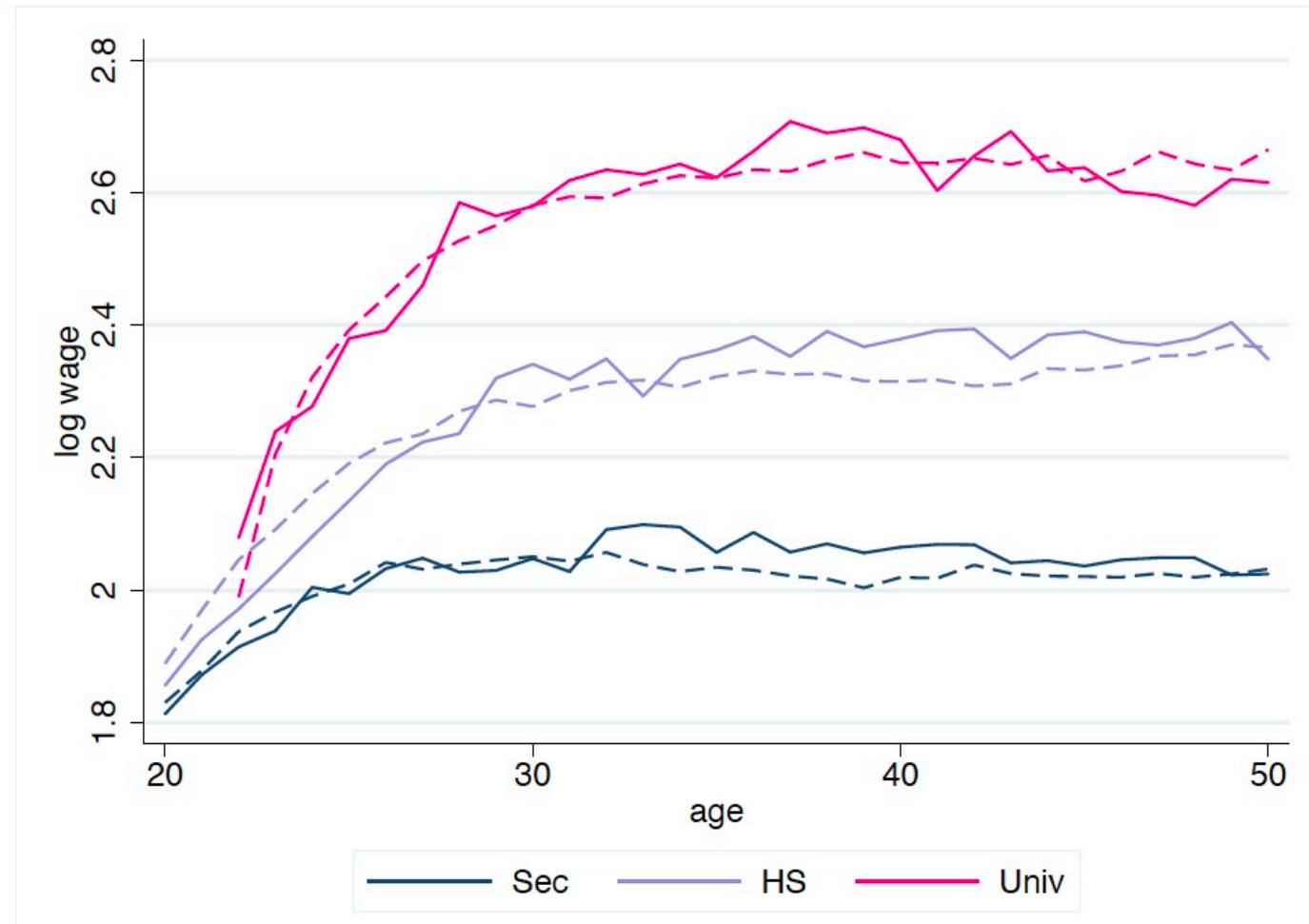
Notes: Method of Simulated Moments estimates. Interactions with background factors x_i included. Correlated unobserved heterogeneity in wage and choice model.

Data: 18 waves from the UK HLS data. Unbalanced panel of 7,359 women aged 19-59.

Descriptive statistics and full set of results available.

Source: Blundell, Costa-Dias, Meghir and Shaw (Ecta, 2016, updated)

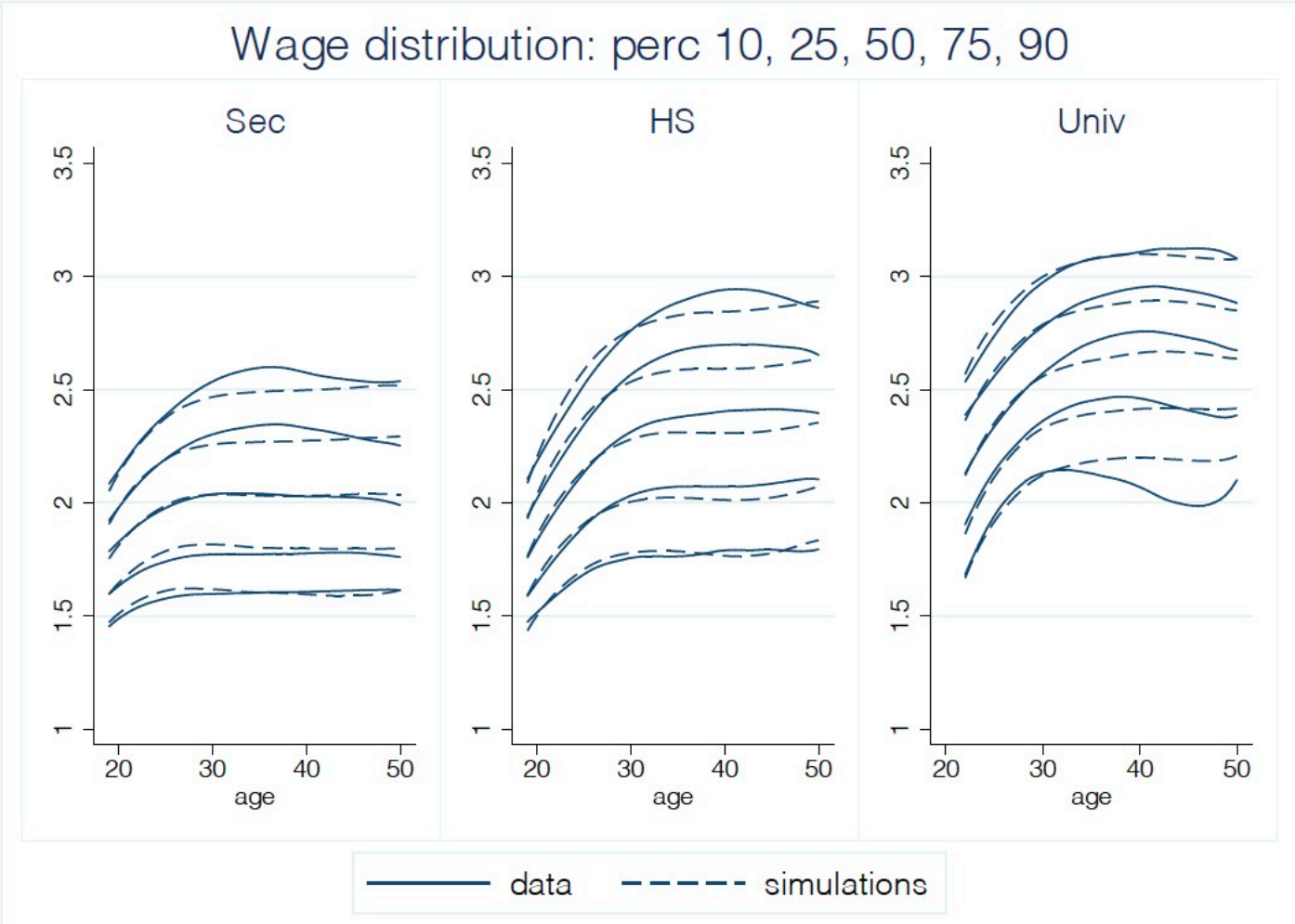
Wage profiles, fit



Notes: Women, UK HLS. Interactions with background factors are included.

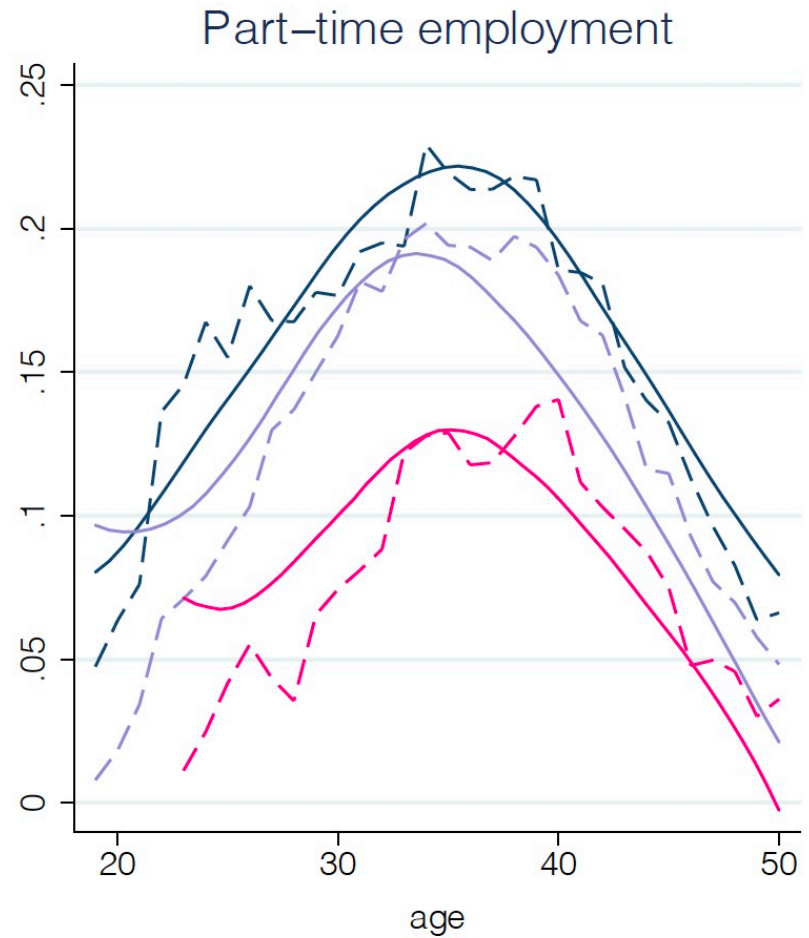
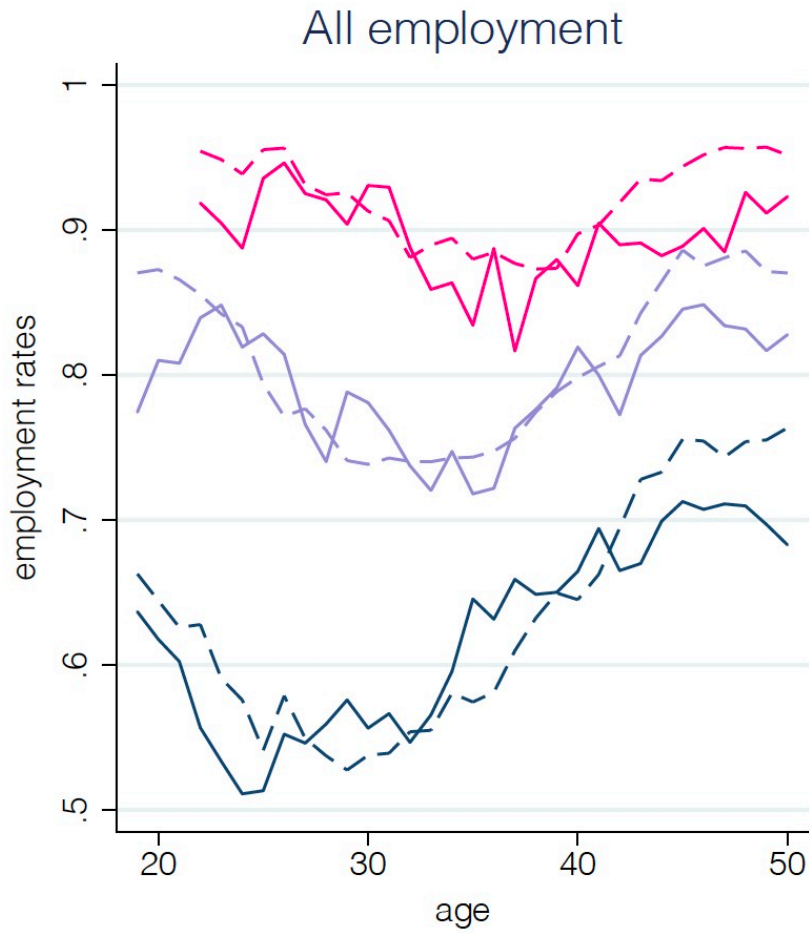
For university graduates, experience and part-time penalty can explain 65% of the gender wage gap.

Wage distribution, fit



Notes: Women, UK HLS. Interactions with background factors are included

Employment over the life-cycle, fit



----- secondary - - - - high school - - - - university

Notes: Women, UK HLS.

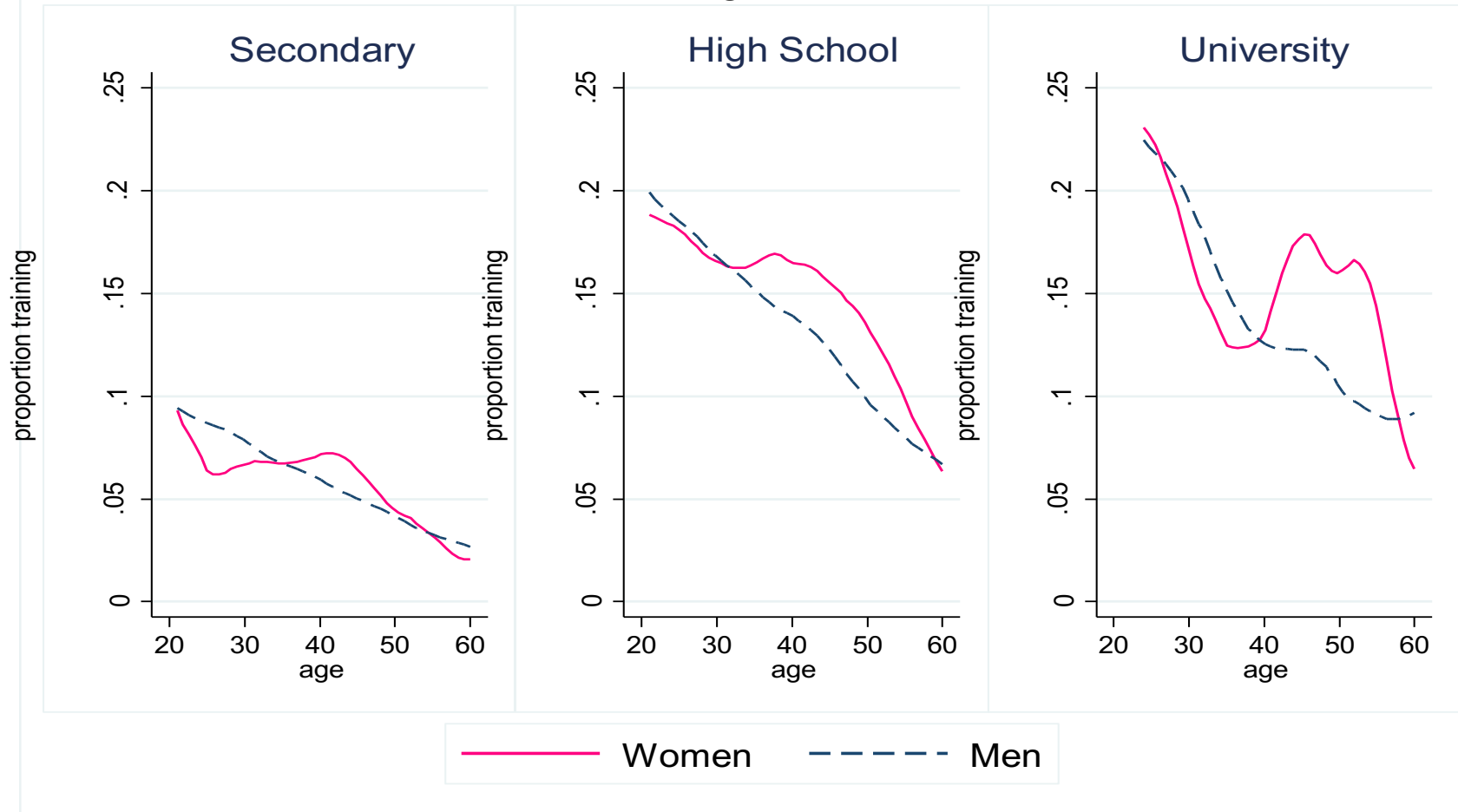
Wage progression and experience results: summary so far

- Returns to work experience show strong complementarity with education
 - much lower returns to work experience for lower educated and also for part-time work,
 - employment, especially part-time, is not (any longer) a route out of low earnings.
- Implications for welfare-benefit reform,
 - importance of low returns to experience for the low educated and the adverse impact of part-time work, limit the effectiveness of the UK (earned income) tax-credits.
 - little incentive for active investment in progression by workers or firms.
- What about the role of on-the-job training?
 - learning or doing vs learning by doing.

2. Training also appears complementary with education

Prevalence of training over past year

All training, 50+ hours



Source: Blundell, Costa-Dias, Goll and Meghir (2021), Notes: UK HLS

Training questions in UK HLS

READ OUT

I would like to ask some details about all of the training schemes or courses you have been on since September 1st 1999, (other than those you have already told me about), starting with the most recent course or period of training even if that is not finished yet.

	D69.	D70.	D71.	D72.					
Event no.	SHOWCARD D13 Where was the main place that this course or training took place?	Was this course or training. . . READ OUT AND CODE FOR EACH	Since September 1st 1999 how much time have you spent on this course or training in <u>total</u> ?	SHOWCARD D14 Which statement or statements on this card describe how any fees were paid, either for the course or for examinations? CODE ALL THAT APPLY					
1	<p>WRITE IN MAIN PLACE AND ENTER CODE FROM SHOWCARD CODE ONE ONLY</p> <p>WRITE IN PLACE</p> <p>_____</p> <p>_____</p> <p>ENTER CODE FROM SHOWCARD</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> <p>JTRPLCE1</p>			<p style="text-align: center;">Yes No</p> <p>To help you get started in your current job?..... 1 2 JTRWHYA1</p> <p>To increase your skills in your current job for example by learning new technology? 1 2 JTRWHYB1</p> <p>To improve your skills in your current job?..... 1 2 JTRWHYC1</p> <p>To prepare you for a job or jobs you might do in the future?..... 1 2 JTRWHYD1</p> <p>To develop your skills generally? 1 2 JTRWHYE1</p>	<p>ENTER NUMBER</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table> <p>JTRQ1</p> <p>CODE UNIT</p> <p>Hours..... 1</p> <p>Days..... 2</p> <p>Weeks 3</p> <p>Months 4</p> <p>Other (SPECIFY) _____ 5</p> <p>JTRU1</p>				<p>No fees 01 JTRFEEA1</p> <p>Self/family 02 JTRFEEB1</p> <p>Employer/ future emp..... 03 JTRFEEC1</p> <p>New Deal scheme 05 JTRFEEE1</p> <p>Training for work, Youth/Emp training/ TEC 06 JTRFEEF1</p> <p>Other arrangement (SPECIFY) _____ 07 JTRFEEG1</p>

Source: Blundell, Costa-Dias, Goll and Meghir (2021), Notes: UK HLS

Adding training to the log wage equation

- Extend panel data model of log wage for individual i , schooling s , age t and training $D_{i,t-1}$. Adds $\tau_s D_{i,t-1}$ to the stock of human capital:

$$\kappa_{ist} = \kappa_{is,t-1}(1 - \delta_s) + FT_{i,t-1} + \alpha_{2s}PT_{i,t-1} + \tau_s D_{i,t-1}$$

Parameter	Secondary	High School	University
Return to HC ($\gamma_{s,0}$)	0.134 (.02)	0.230 (.03)	0.290 (.03)
Exp from training (τ_s)	0.119 (.08)	0.139 (.04)	0.096 (.02)
Exp from PT work (α_{2s})	0.092 (.01)	0.093 (.02)	0.105 (.03)
Exp depreciation rate (δ_s)	0.081 (.04)	0.087 (.03)	0.083 (.03)

Data: Women, UK HLS, 1991 - .

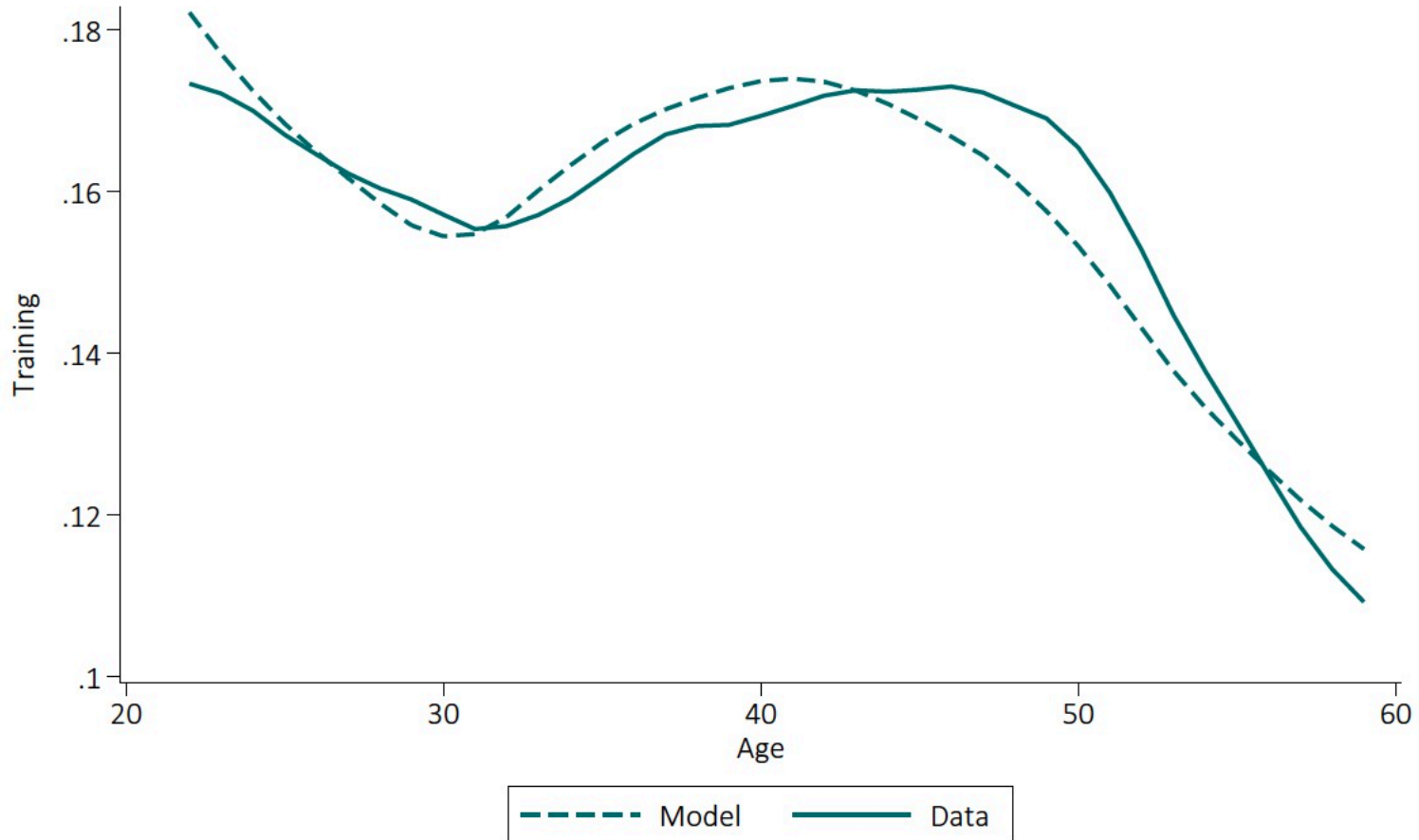
Notes: Method of Simulated Moments. Interactions with background factors included.

Additional exclusion: changes in training subsidies by industry weighted by travel to work area industrial shares matched Business Structure Database.

Source: Blundell, Costa-Dias, Goll and Meghir (2021), Notes: UK HLS

Model fit

Training rate: high school women



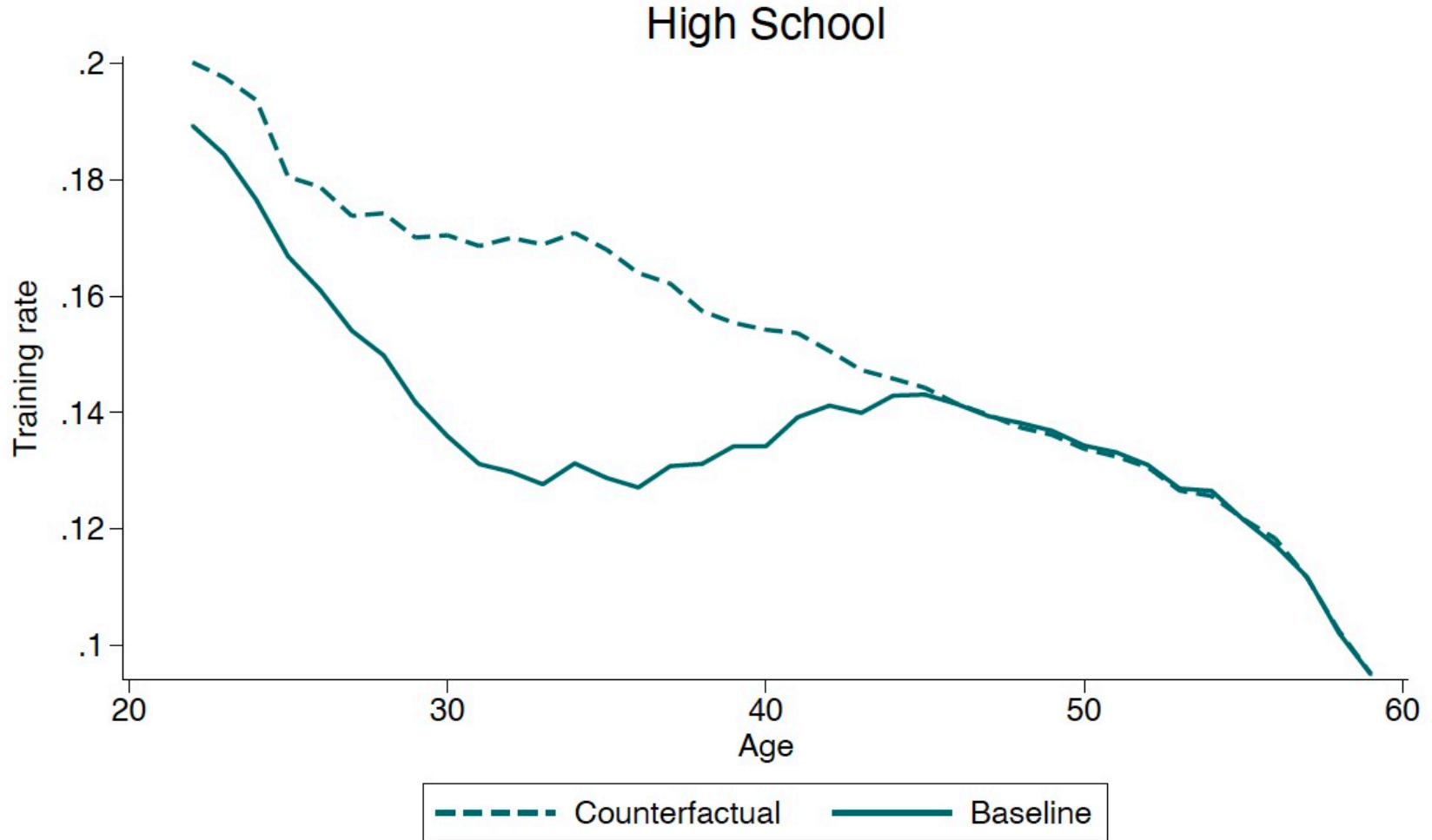
Source: Blundell, Costa-Dias, Goll and Meghir (2021), Notes: UK HLS

Wage progression and training: results summary

- The impact of training remains significant, *conditional* on education, experience, family background, persistent shocks and heterogeneity.
- Particularly strong effects for ‘middle’ education, below University, group
 - with return equivalent to that in formal education,
 - training can partially offset human capital depreciation from lost work experience and (partially) reverse the gender wage gap,
 - firm-based qualification training is key. Relate to work on Norwegian ‘second chance’ adult training reform for low educated.
- Policy implications
 - A subsidy for firm-based qualification training can be integrated with an earned income tax credit and provide an incentive for progression,
 - Policy simulations suggest an effective revenue neutral reform.

Subsidy policy simulation

£500 subsidy per year for 100 hours of training available when child is age 0-7.



Source: Blundell, Costa-Dias, Goll and Meghir (2021), Notes: Women, UK HLS

3. Wage progression and firms

Dig deeper into why some lower education workers do well.

- Do firms matter and what skills bring largest returns?
- Matched worker-firm data for the UK
 - Annual Survey of Hours and Earning (ASHE): panel data, collected from firms based on tax records, matched at 4-digit level to O*Net,
 - Annual Respondents Database (ARD): census of data on firm structure, location and employment,
 - Business Enterprise Research and Development (BERD): R&D expenditure,
 - European Working Conditions Survey (EWCS): ‘good jobs’ questions.
- Find that lower-educated workers in occupations that require ‘soft-skills’
 - experience *higher wage progression*,
 - they are *more likely to receive training*,
 - progression is stronger in firms with a *large share of high-skilled workers* and in *more innovative firms*.

Proxies for importance of 'soft skills'

How important is ... to the performance of your current job?

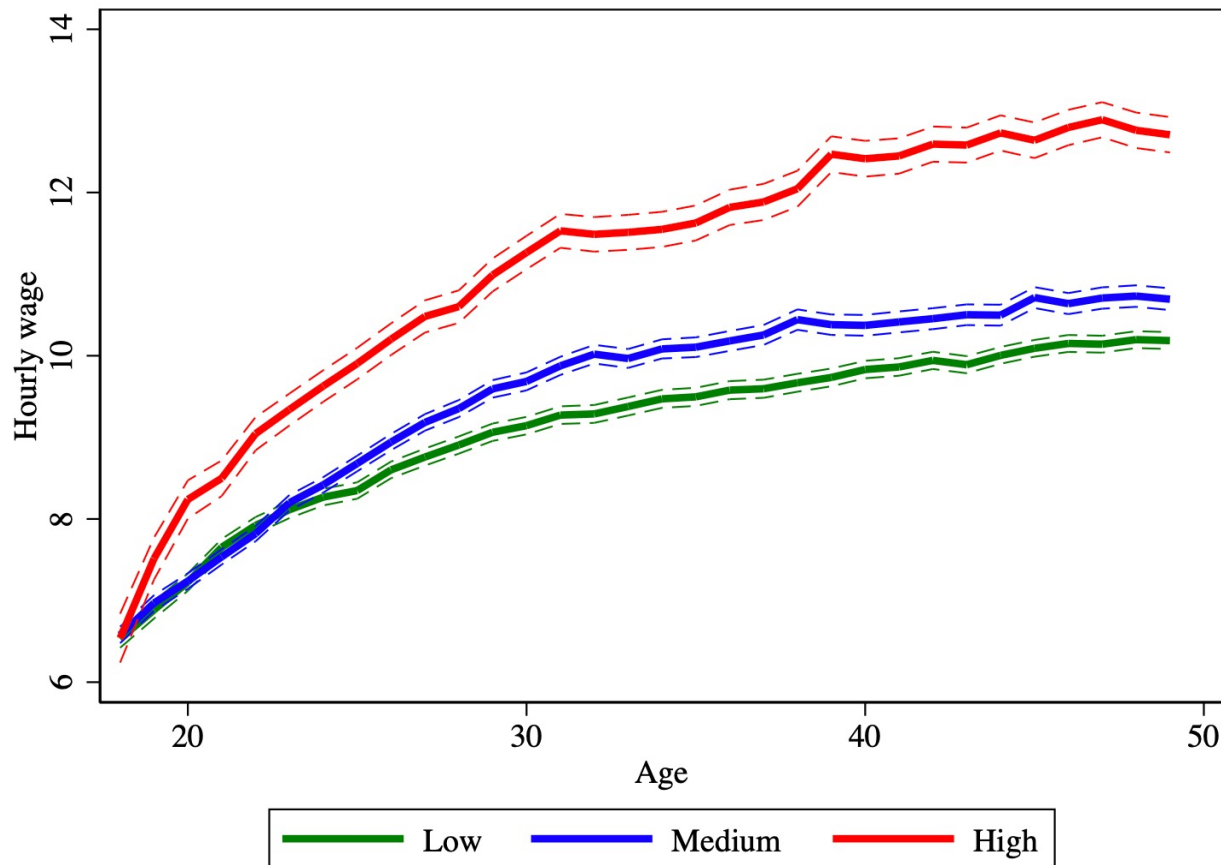
- **Problem Sensitivity:** The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing a problem.
- **Active Listening:** Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate.
- **Social Perceptiveness:** Being aware of others' reactions and understanding them
- **Coordination:** Adjusting actions in relation to others' actions.
- **Work With Work Group or Team:** the importance of working with others in a group or team in the job.
- **Responsibility for Outcomes and Results:** responsibility for work outcomes and results of other workers.
- **Impact of Decisions on Co-workers or Company Results:** results of your decisions usually have on other people or the reputation of employer.

Focusing on the lower-educated (RQF 4-digit match), we use 10 task measures to create (PCA) a single index ' λ ' of the importance of 'soft skills'.

- Show this measure is strongly correlated with the EWCS questions on what lower educated workers define as a 'good job' offering career progression.

Wage progression for workers according to soft skill intensity λ

Lower-educated men

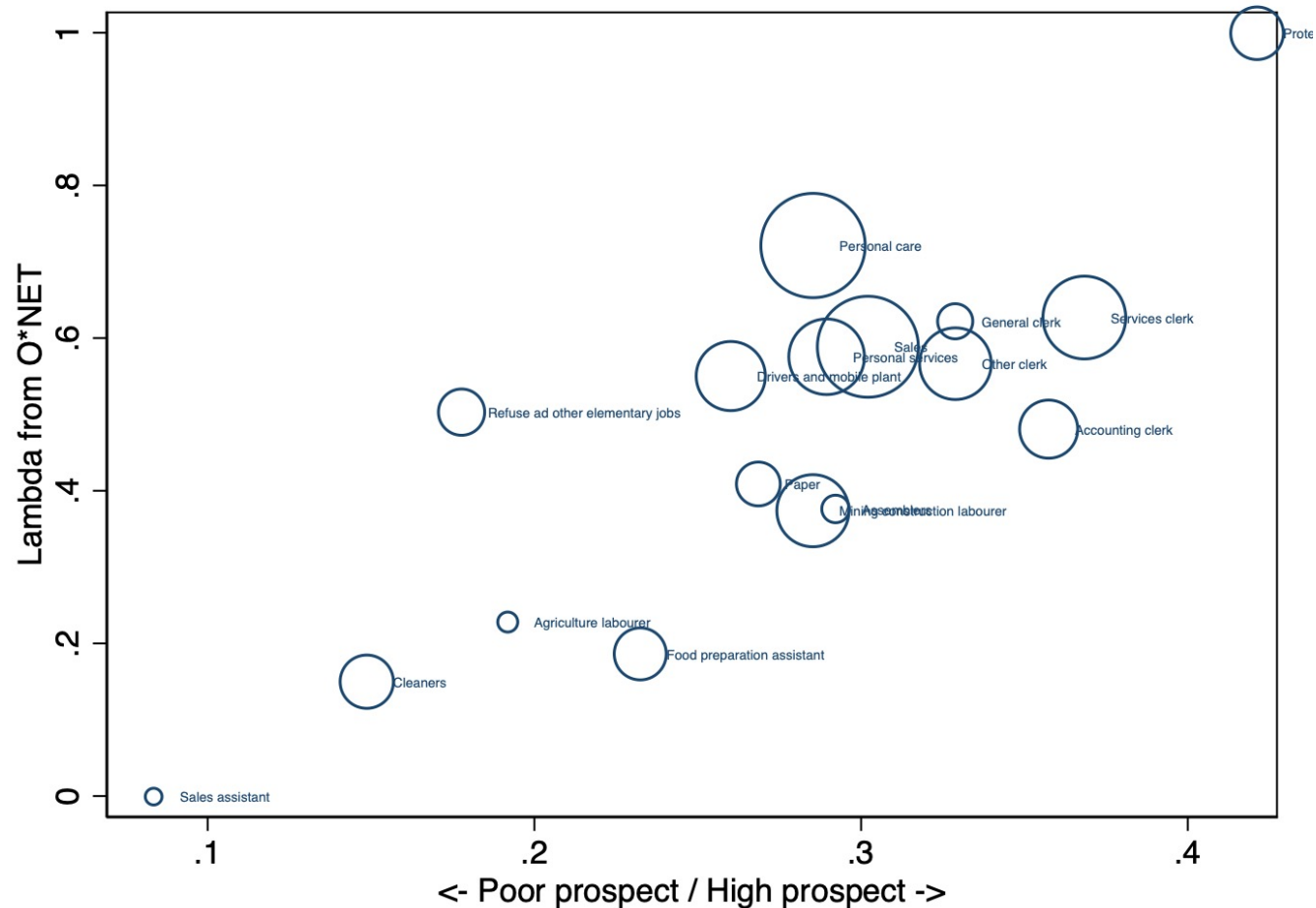


Notes: Data from Annual Survey of Hours and Employment (ASHE) 2004-2019. Figure shows average hourly wage at each age for male workers in private sector firms in occupations with low-educational requirements categorised by the measure of the importance of soft-skills (Regulatory Qualification Framework, RQF). λ index split in three equal bins.

Source: Aghion, Bergeaud, Blundell and Griffith (2021)

Does λ identify “good jobs”?

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



Notes: Authors' calculations using EWCS, 2015. Each dot is a 2-digit occupation, scaled by UK employment.
Source: Aghion, Bergeaud, Blundell and Griffith (2021)

Employer-Employee Panel Data Results for low-educated

Dependent variable: $\ln(w_{ijkft})$

High lambda	0.1387*** (0.0022)	0.0869*** (0.0032)	0.0330*** (0.0032)	0.0613*** (0.0023)
x tenure		0.0073*** (0.0004)	0.0013*** (0.0005)	0.0036*** (0.0003)
x tenure 0-5 years		0.0079*** (0.0009)	0.0057*** (0.0006)	0.0085*** (0.0008)
initial wage				0.0459*** (0.0009)
Controls for age, tenure, tenure-squared, gender, full/part-time, firm size				
TTW-Occ-Year	✓	✓	✓	✓
TTW-Year				✓
Year effects			✓	
Worker effects			✓	
R^2	0.241	0.248	0.347	0.439
Observations	339,911	339,911	339,911	339,911

Notes: Sample is male workers aged 18-49 in low-educated occupations in private sector firms 2004-2019. Numbers are coefficients with robust standard errors in parentheses. Travel To Work (TTW) times year, or TTW time 2-digit occupation times year are included as indicated. Stars indicate * p<0.1, ** p<0.05, *** p<0.01

Source: Aghion, Bergeaud, Blundell and Griffith (2021).

Adding innovativeness and other firm-level factors

Dependent variable: $\ln(w_{ijkft})$

High lambda	0.0659*** (0.0034)	0.0321** (0.0054)	0.0670*** (0.0035)
x tenure	0.0037*** (0.0003)	0.0020*** (0.0004)	0.0041*** (0.0003)
x tenure 0-5 years	0.0095*** (0.0010)	0.0044*** (0.0009)	0.0080*** (0.0012)
x RD firm		0.0032 (0.0065)	0.0076 (0.0051)
x tenure 0-5 years x RDfirm		0.0032* (0.0017)	0.0045*** (0.0021)
RD firms		0.0408*** (0.0033)	0.0427*** (0.0022)
tenure x RD firm		-0.0024*** (0.0004)	-0.0002 (0.0003)
Controls for age, tenure, tenure-squared, gender, full/part-time, firm size			
Initial wage	✓		✓
TTW-Occ-Year	✓		✓
Year		✓	
Worker effects		✓	
R^2	0.364	0.342	0.367
Observations	212,428	212,428	212,428

Notes: Sample is male workers aged 18-49 in low-educated occupations in private sector firms. Numbers are coefficients with robust standard errors in parentheses. Travel To Work (TTW) times year, or TTW time 2-digit occupation times year are included as indicated. Stars indicate * p<0.1, ** p<0.05, *** p<0.01 Source: Aghion, Bergeaud, Blundell and Griffith (2021).

Adding innovativeness and proportion of higher educated workers

Dependent variable: $\log(w_{ijkft})$

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
High- λ	0.0055 (0.0041)	0.0321** (0.0049)	0.0145*** (0.0043)	0.0281*** (0.0046)	0.0018*** (0.0041)	0.0323*** (0.0049)	0.0104** (0.0043)
× T	0.0037*** (0.0003)	0.0020*** (0.0004)	0.0041*** (0.0003)	0.0022*** (0.0004)	0.0032*** (0.0003)	0.0021*** (0.0004)	0.0036*** (0.0003)
× T(0-5)	0.0095*** (0.0010)	0.0044*** (0.0009)	0.0080*** (0.0012)	0.0051*** (0.0008)	0.0082*** (0.0010)	0.0039*** (0.0010)	0.0065*** (0.0012)
× R		-0.0029 (0.0059)	-0.0215*** (0.0049)			-0.00735 (0.0061)	-0.0192 (0.0049)
× T(0-5) × R		0.0032* (0.0017)	0.0045** (0.0021)			0.0034* (0.0017)	0.0052** (0.0021)
× high-ed				0.0026*** (0.0006)	0.0040*** (0.0005)	0.0027*** (0.0006)	0.0042*** (0.0005)
× T(0-5) × high-ed				0.0003* (0.0001)	0.0005*** (0.0002)	0.0003*** (0.0001)	0.0005*** (0.0002)
R		0.0408*** (0.0033)	0.0427*** (0.0022)			0.0386*** (0.0034)	0.0378*** (0.0023)
× T		-0.0024*** (0.0003)	0.0003 (0.0002)			-0.0023*** (0.0004)	0.0005** (0.0003)
high-ed				0.0031*** (0.0003)	0.0040*** (0.0002)	0.0029 (0.0003)	0.0038 (0.0002)
× T				0.0000 (0.00004)	0.00002 (0.00002)	0.00001 (0.00004)	0.00003 (0.00002)
TTW-Occupation-Year	✓		✓		✓		✓
Worker effects		✓		✓		✓	
Year effects		✓		✓		✓	
R^2	0.364	0.342	0.367	0.343	0.373	0.344	0.376
Observations	212,428	212,428	212,428	198,479	198,479	198,479	198,479

Source: Aghion, Bergeaud, Blundell and Griffith (2021).

Workers in high lambda occupations get more training

Matching in data from LFS on training of individual UK workers

	Lambda of occupation		diff
	below median	above median	
Whether employer has offered training	13.9 (0.17)	15.7 (0.18)	1.7*** (0.24)
In education or training (of any kind)	9.5 (0.12)	10.9 (0.13)	1.5*** (0.18)
Training during work	4.9 (0.29)	5.8 (0.31)	0.9*** (0.42)

Notes: LFS, 2011-2016, males 18-49 in low-skilled occupations in private firms with 400+ employees, stars indicate * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Source: Aghion, Bergeaud, Blundell and Griffith (2021)

Firms, skills and wage progression: summary

- Some lower educated workers experience higher wage progression
 - we find this (partly) reflects the value of ‘soft skills’,
 - these workers see more training and longer tenures,
 - with higher progression in more innovative firms and firms with a larger share of higher educated,
 - also find workers in soft skill occupations are less likely to be out-sourced, look at *cleaners* as a case study.
- Cognitive and other skills matter too but soft skills remain an important dimension for lower educated workers,
 - note the ‘Soft skills’ impact on wage progression appears larger for women.
- Interpretation: workers with ‘soft skills’ are *complementary* to high skilled workers (and other assets) and can capture a higher share of the surplus.

Overview: Some take-aways ...

Little overall earnings progression for lower educated workers

- employment alone is (increasingly) not enough to escape poverty and low earnings,
- find diverging wage profiles by education and by part-time work,
- low rates of on-the-job training for lower educated workers,
- female labour supply has not overcome increasing family earnings inequality due to part-time work, assortativeness and low female earnings share.

but.....

- find significant returns for firm-based qualification training, and
- low-educated workers with 'soft skills' see improved progression, with more training and longer tenures,
- especially in R&D firms and firms with a large share of higher skilled workers.

Designing a policy mix to address labour market inequality

Earned income tax credits?

- offset adverse means-testing incentives, encourage employment, well-targeted to low earning families but produce little wage progression or 'self-sufficiency',
- avoid part-time incentives in working tax credits & incorporate training incentives.

Human capital/training?

- focus on firm-based qualification training for lower educated,
- emphasis on firm match and 'soft skills'.

Place-based policies?

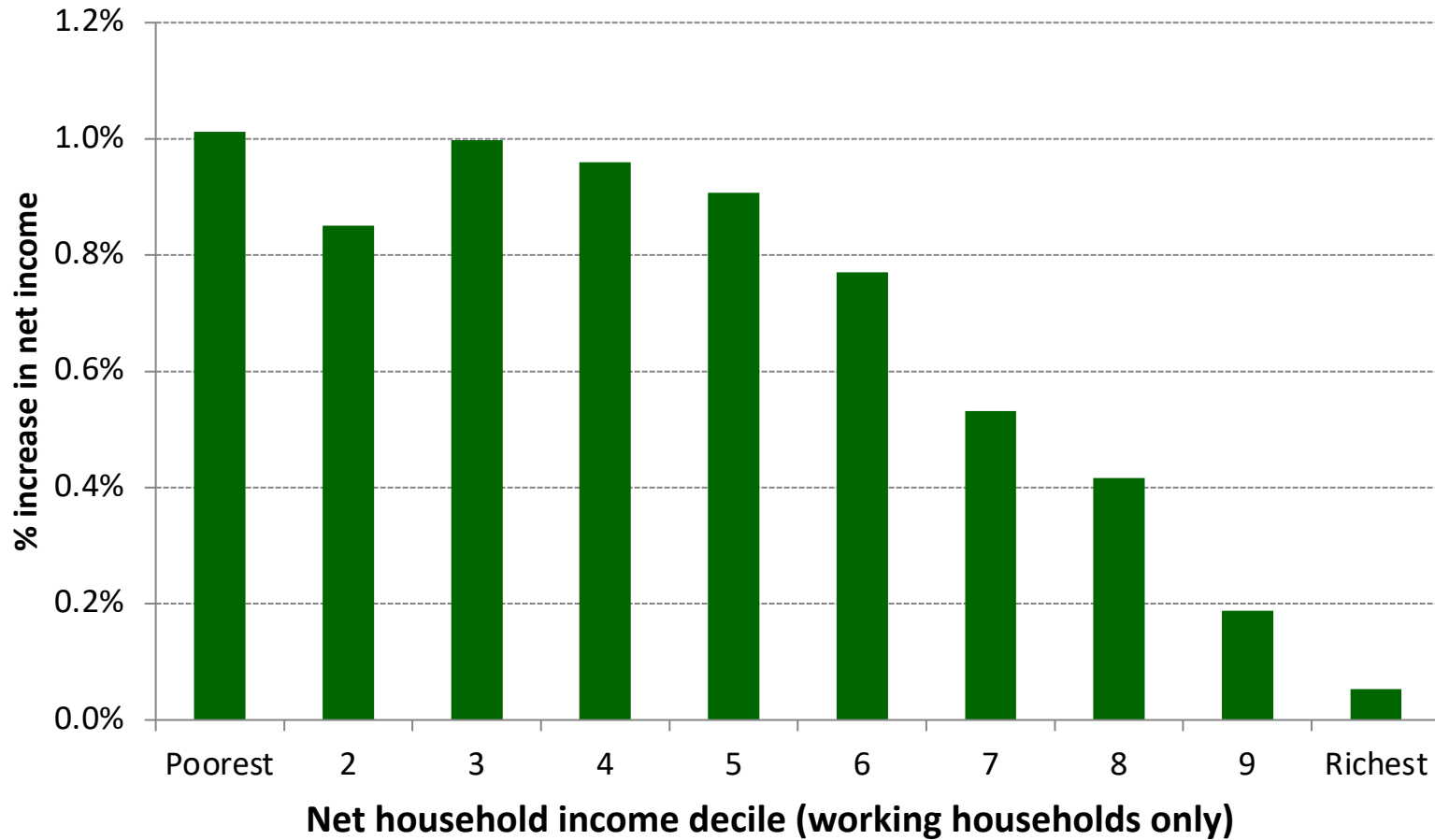
- policies to attract R&D firms and firms that employ a mix of educational groups,
- policies to reverse educational flight.

Minimum wage and regulation?

- min wage less well-targeted to low family incomes, due to family earnings and falling male hours/attachment, little direct incentive for progression
 - should be a *complement* to tax credits and human capital policies,
- line-up benefit eligibility and effective tax rates for self-employed.

Higher minimum wage targets the lowest-wage people, *not* necessarily the lowest-earning households

Figure shows the increase in the minimum wage between 2018 and 2020 in the UK. Which *working households* get the extra money?

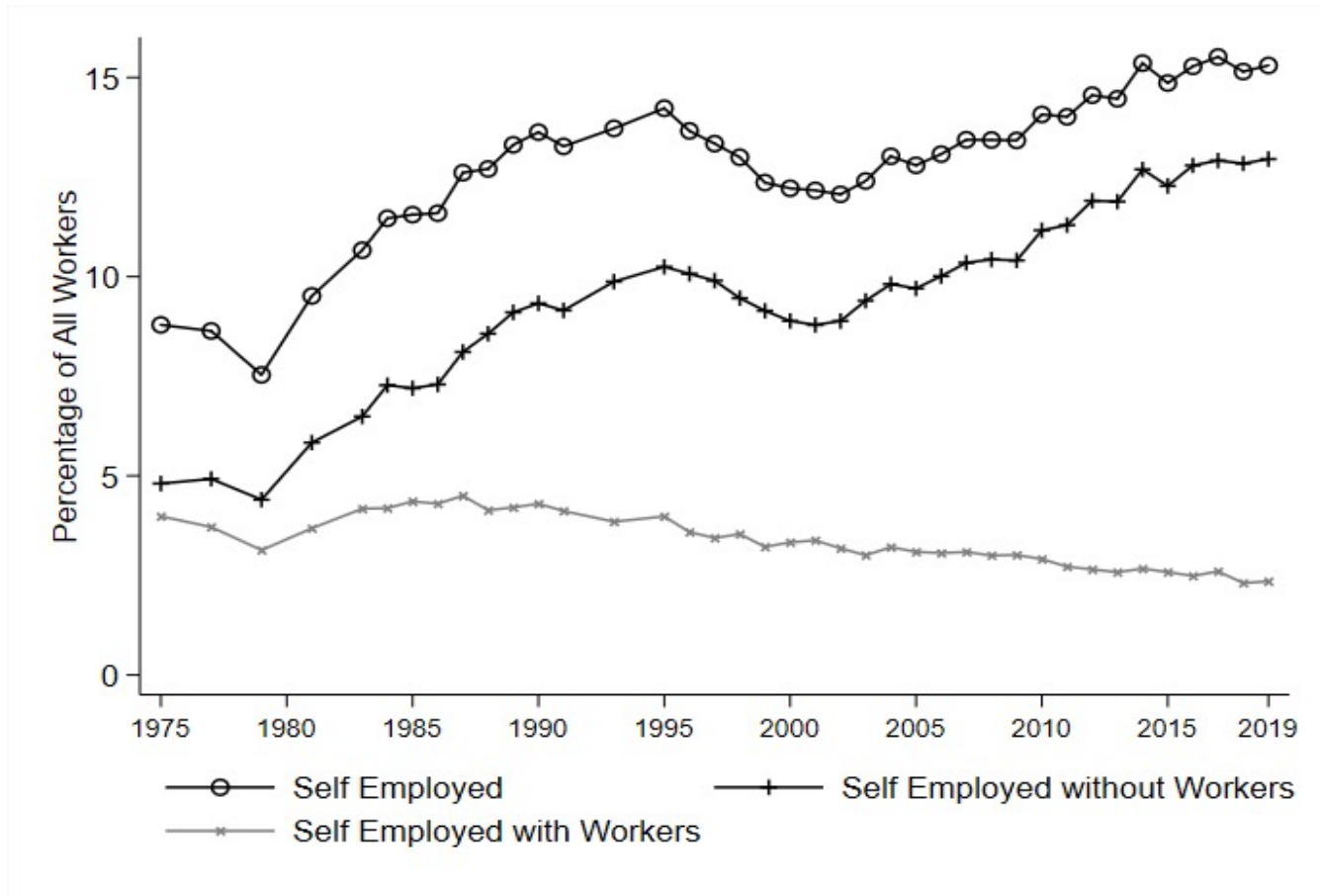


Note: Shows mechanical increase in net income arising from minimum wage rises planned between now and 2020, allowing for interaction with tax payments and benefit entitlements.

Source: Calculations using data underlying Figure 9 of Cribb, Joyce and Norris Keiller (2018)

Growth in solo self-employment in the UK

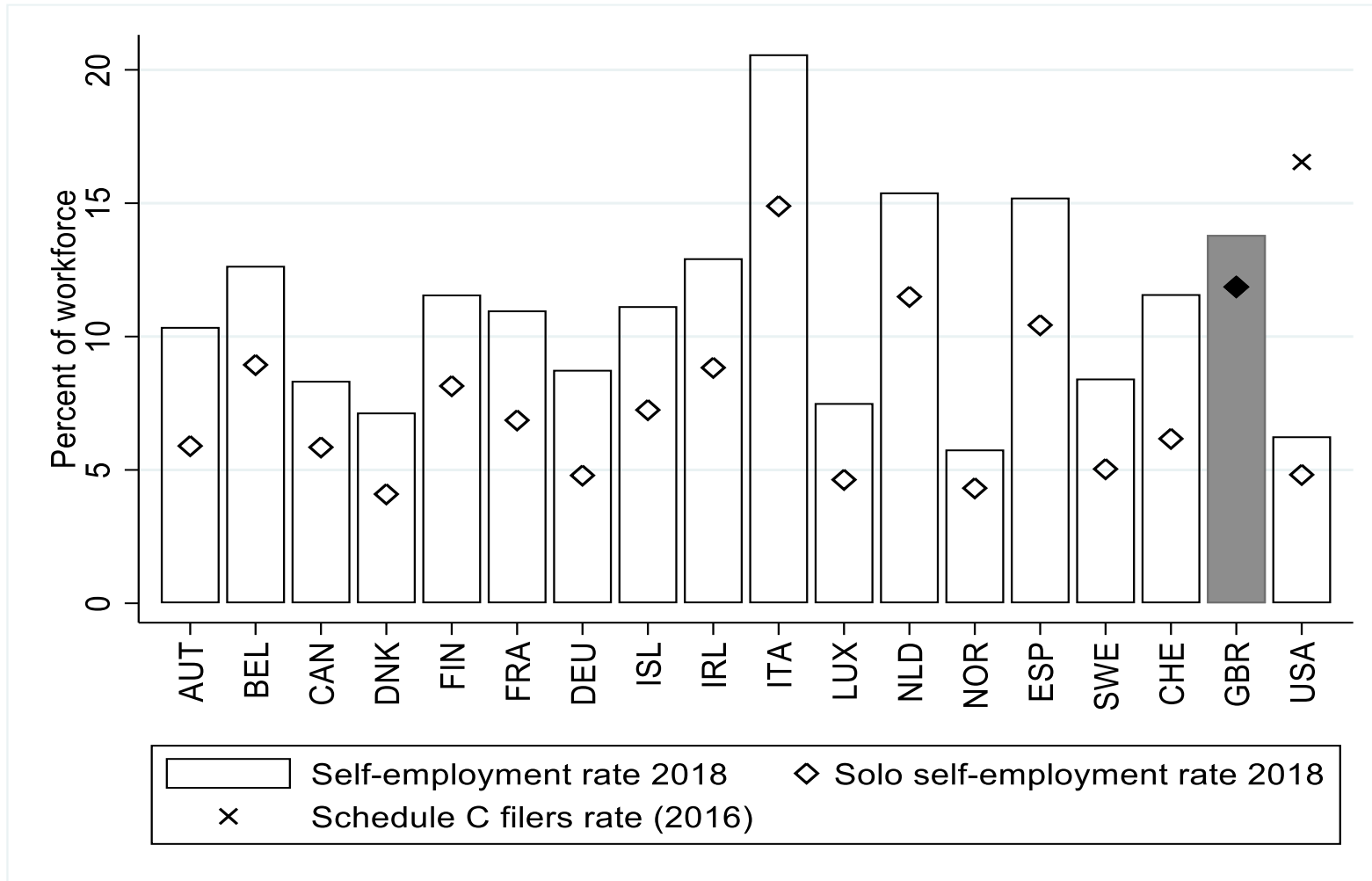
Self-employment as percent of workforce



Source: Giupponi and Machin (Deaton Review, IFS, 2020)

Self-employment across countries

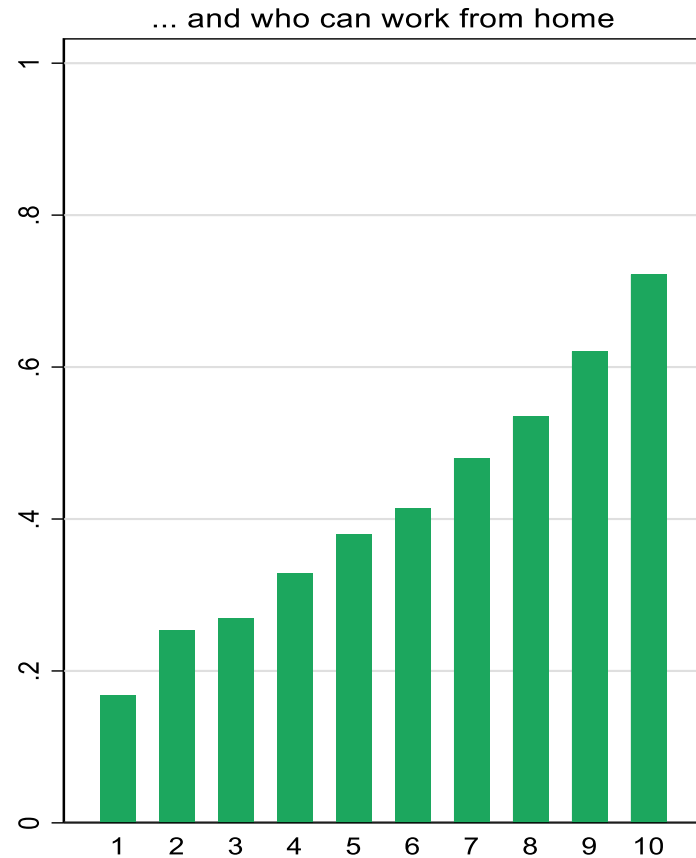
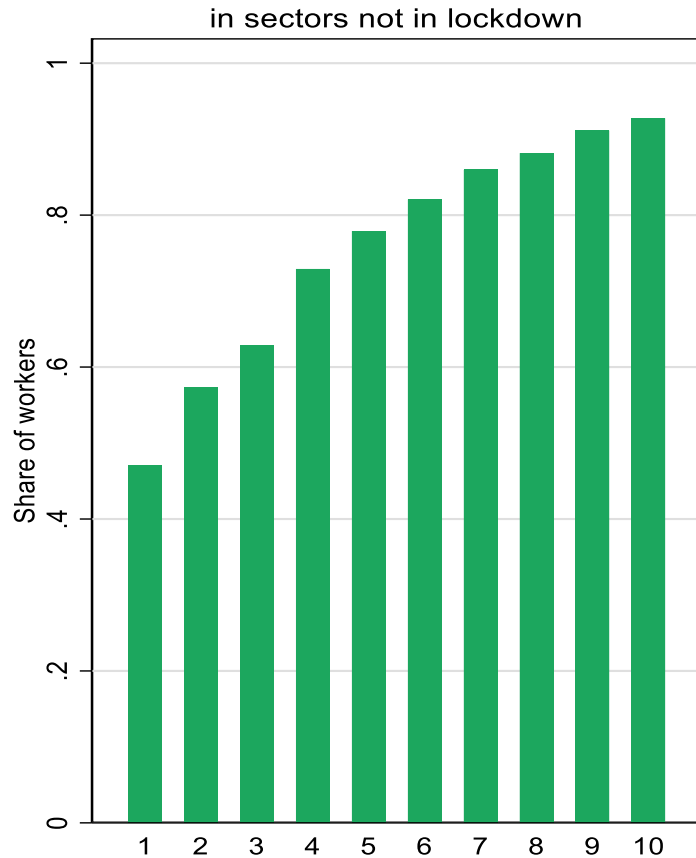
Self-employment as percent of workforce



Source: Giupponi and Machin (Deaton Review, IFS, 2020)

What changes after Covid?

Share of workers in sectors not in lockdown and who can work from home, excluding key workers, by decile of earnings distribution



Notes: Source: Blundell et al (2020), figure 8, based on analysis of UK Labour Force Survey Data

Labour market inequality and redistribution after Covid

- Earnings inequality?
 - lost skill investments for young workers,
 - a change in the nature of work and the structure of industry,
 - will there be a move to enhance the wages of low paid ‘key workers’?
 - or, will the increase in demand for e-commerce and IT dominate?
-> an increase in the education premium and for work from home.
- Will there be a new emphasis on building a fairer society?
 - more people will have experienced welfare state,
 - making permanent the temporary enhancements to welfare-benefits.
 - will attitudes to welfare change? -> a new emphasis on social insurance to improve replacement rates?
 - new focus on training for re-allocation and increased automation?
soft-skills?



The IFS Deaton Review

Inequality, Redistribution and the Labour Market

ECINEQ July 8th 2021

Richard Blundell

University College London and Institute for Fiscal Studies

Motivating theme: Can't address all the concerns about low wages, poor wage progression and earnings inequality through the tax and welfare system alone.

Key challenge: The balance between tax/benefit policy and other policies: min wages, human capital policies, competition policy, etc.

<https://www.ifs.org.uk/inequality/>

Summary findings: Inequality, Redistribution and the Labour Market

Little earnings progression for lower educated workers:

- employment alone is (increasingly) not enough to escape poverty and low earnings,
- diverging wage profiles by education and part-time work,
- low rates of on-the-job training for lower educated workers,
- female employment has not reversed rising family earnings inequality,
- but some lower educated workers do well, those with 'soft skills' see improved progression, with more training and longer tenures.

- The policy mix:

- **Earned income tax credits?** - encourage employment, well-targeted to low earning families but, on their own, produce little wage progression or 'self-sufficiency'.
- **Human capital/training?** - focus on firm-based qualification training with an emphasis on 'soft skills' for lower educated - relate to the 'good jobs' agenda.
- **Minimum wage?** - less well-targeted, due to family earnings and falling male hours. Should be a complement to tax credits.
- **Regulation, etc?** - line up benefit eligibility, training and effective tax rates for self-employed.



Extra Slides

IFS Deaton Review: The Panel

Chair



Angus Deaton
Princeton University

Panel



Orazio Attanasio
IFS, UCL & Yale



James Banks
IFS & Manchester University



Lisa Berkman
Harvard University



Tim Besley
London School of Economics



Richard Blundell
IFS & UCL



Pinelopi Goldberg
Yale University & World Bank



Paul Johnson
IFS & UCL



Robert Joyce
IFS



Kathleen Kiernan
University of York



Lucinda Platt
London School of Economics



Imran Rasul
UCL & IFS



Debra Satz
Stanford University



Jean Tirole
Toulouse School of Economics

Background studies for this Keynote Lecture

- 0. "Income Inequality and the Labour Market in Britain and the US", Richard Blundell, Robert Joyce, Agnes Norris Keiller, and James P. Ziliak, *Journal of Public Economics*, 162, March 2018.
- 1. "Female Labour Supply, Human Capital and Welfare Reform", Richard Blundell, Monica Costa-Dias, Costas Meghir and Jonathan Shaw, *Econometrica*, 84(5), 1705-1753, September 2016.
- 2. "Wages, Experience and Training of Women over the Lifecycle", Richard Blundell, Monica Costa-Dias, David Goll and Costas Meghir, *Journal of Labour Economics*, January, 2021, Vol 39.
- 3. "Soft Skills and the Wage Progression of Low-Educated Workers", Philippe Aghion, Antonin Bergeaud, Richard Blundell, and Rachel Griffith, *CEPR DP14102* updated 2021,
- see my webpage: <https://www.ucl.ac.uk/~uctp39a/pub.html>

Details of a policy mix to address labour market inequality

- Enhancing wage progression
 - limited build-up of appropriate skills for low educated and low-hours jobs,
 - avoid part-time incentives in working tax credits & incorporate training incentives (CCT?) - reformed Universal Credit welfare system in UK and conditioning in eligibility.
- Incentivising skills for lower educated that are valued by firms
 - ‘soft skills’ complement human capital/innovation and enhance progression, more likely to attract training and less likely to be out-sourced; ‘good jobs’
 - re-think firm-based qualification training and the role of complementary technology.
- Stronger competition policy and contract regulation alongside redistributive tax credit, min wage and human capital policies
 - increasing (solo) self-employment among lower educated workers,
 - improve access to non-wage benefits (for example, sickness benefit and maternity benefit in the UK), training and job search/mobility information.

UK welfare-benefit entitlements by hours worked, 2018

lone parent with one child



- motivation for the working tax credit was to preserve labour market attachment, reduce skill depreciation and attenuate the gender gap
- note the minimum hours eligibility rules that focus incentives on part-time work

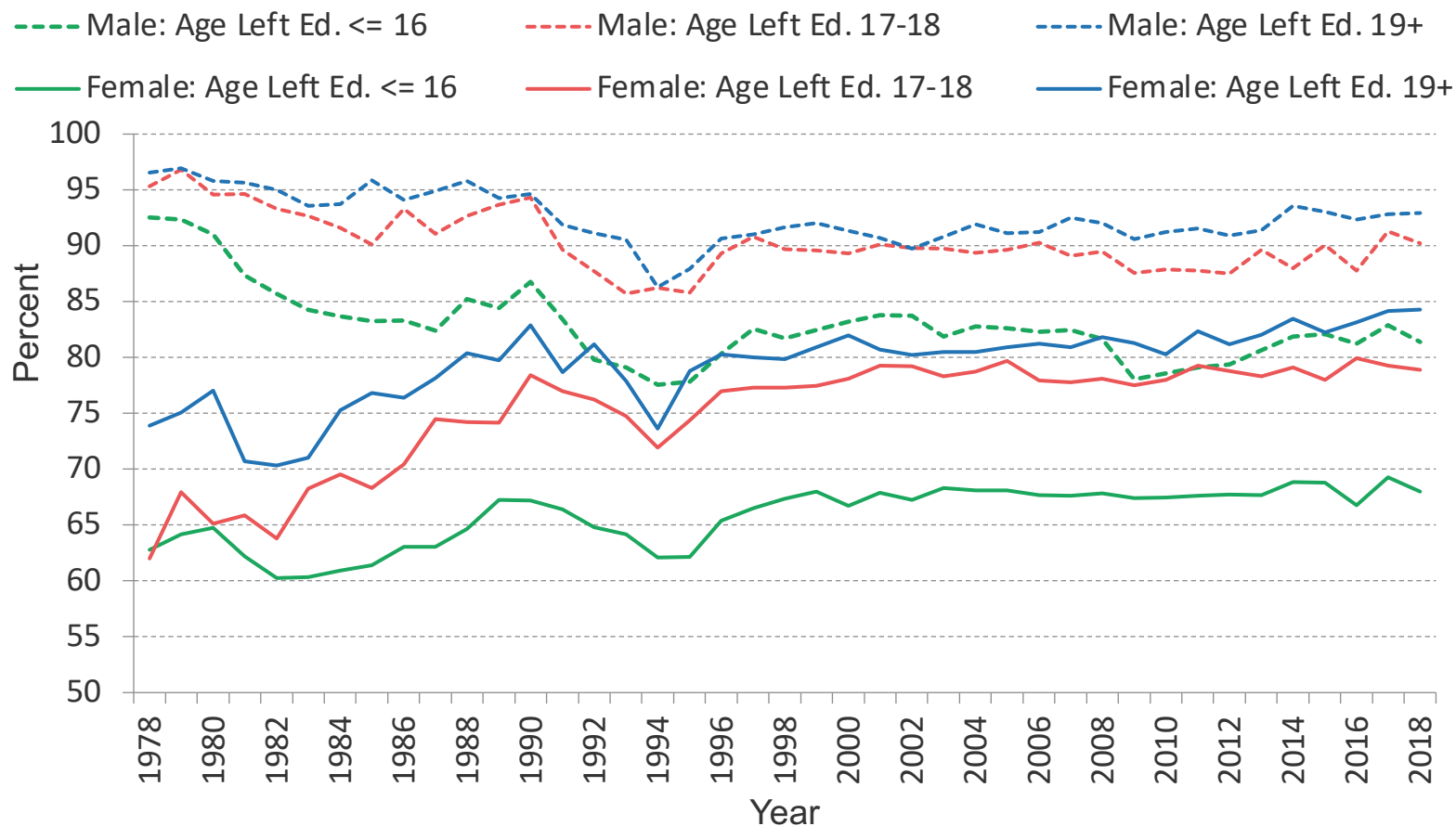
Wage progression is a key component of life-cycle earnings inequality and differences between men and women...



Notes: Wages are shown in 2016 constant-wage terms (population-wide wage growth over time is effectively stripped out). People in the bottom two and top one percentiles of the gender- and year- specific hourly wage distributions are excluded.

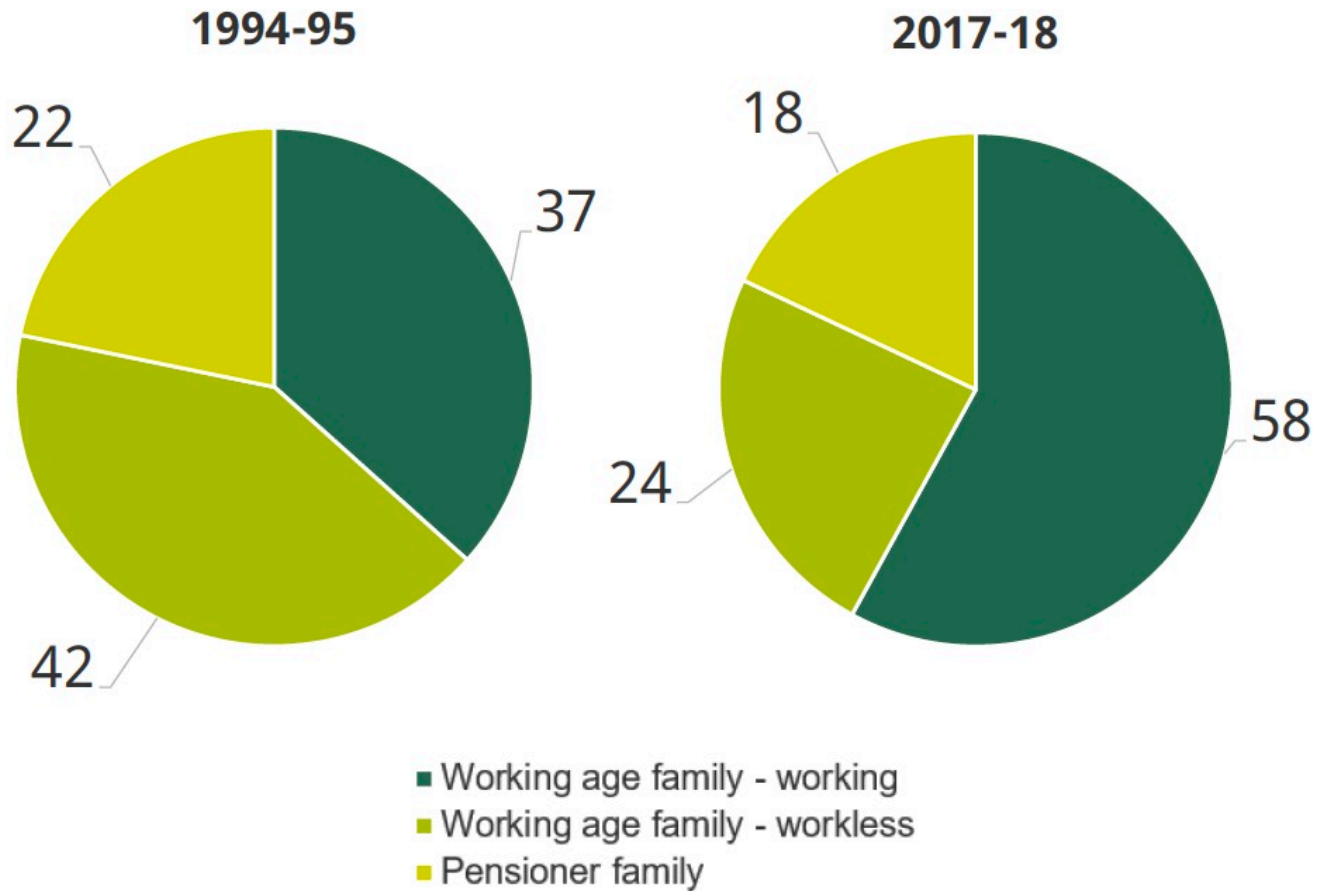
Source: Authors calculations. Data used is LFS 1993Q1-2017Q2.

Employment in UK by education and sex



Note: Sample is individuals aged 25-55 who have completed full-time education. Source: Authors' calculations using FES for 1968-1993 and FRS for 1994-2018. Years refer to calendar years up to and including 1992 and to financial years from 1993-94 onwards. Data are representative of households in Great Britain between 1994 and 2001-02 and of households in Great Britain and Northern Ireland before 1994 and from 2002-03 onwards.

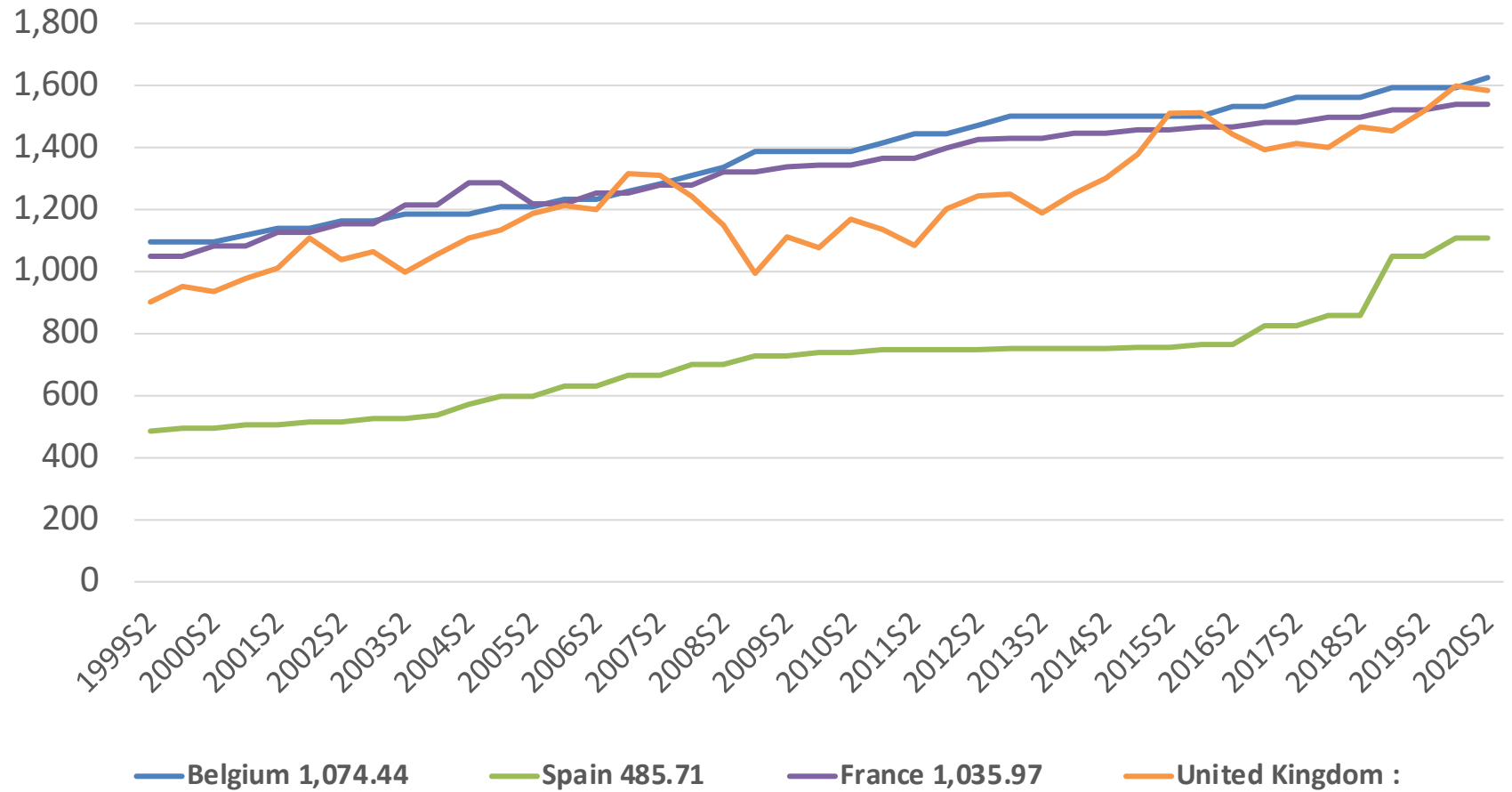
% of those in poverty by work and family type



Source: IFS calculations for the UK, see Figure 1 of Bourquin et al. (2019)

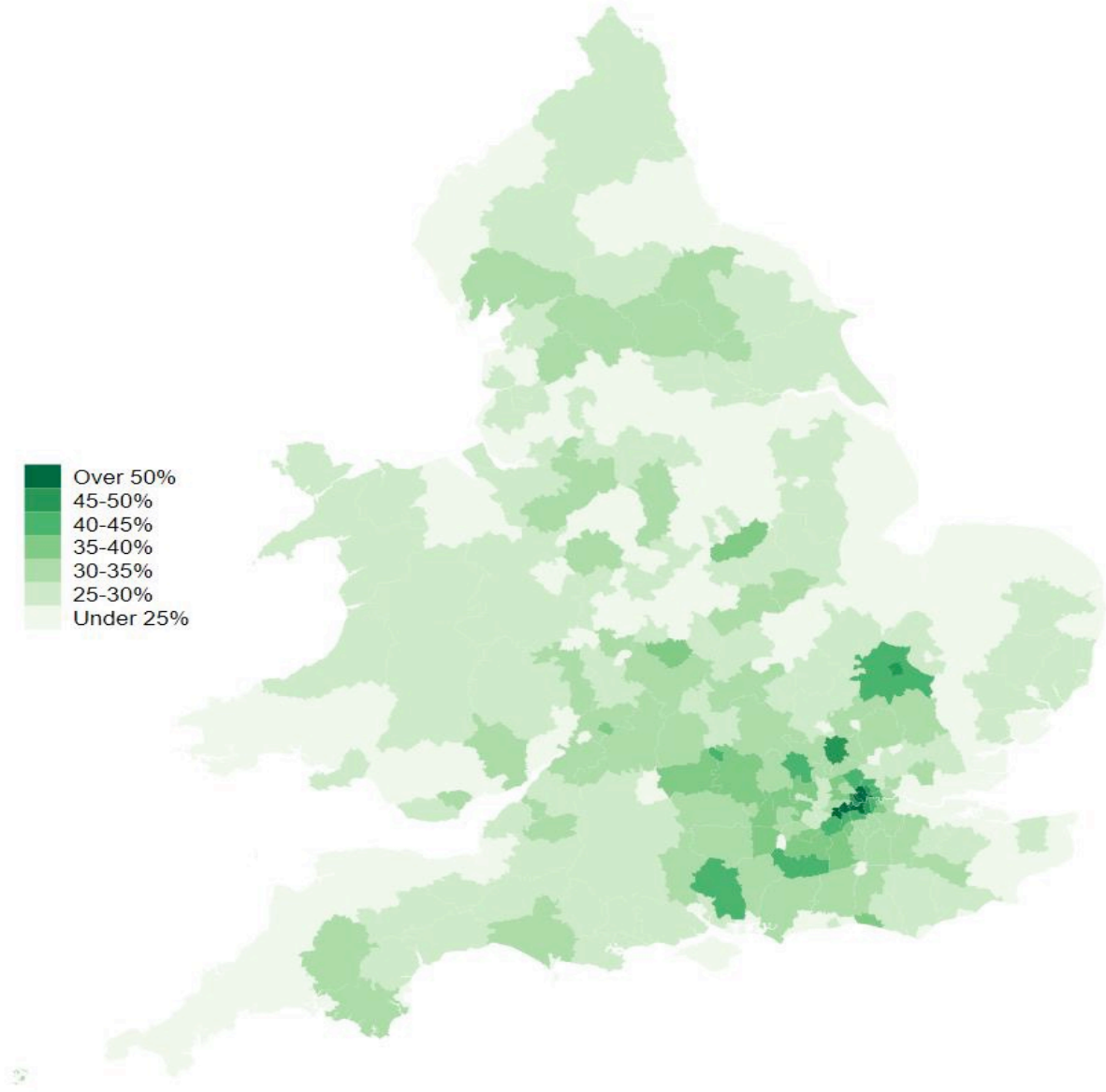
Minimum wage across countries

Monthly equivalent min wage



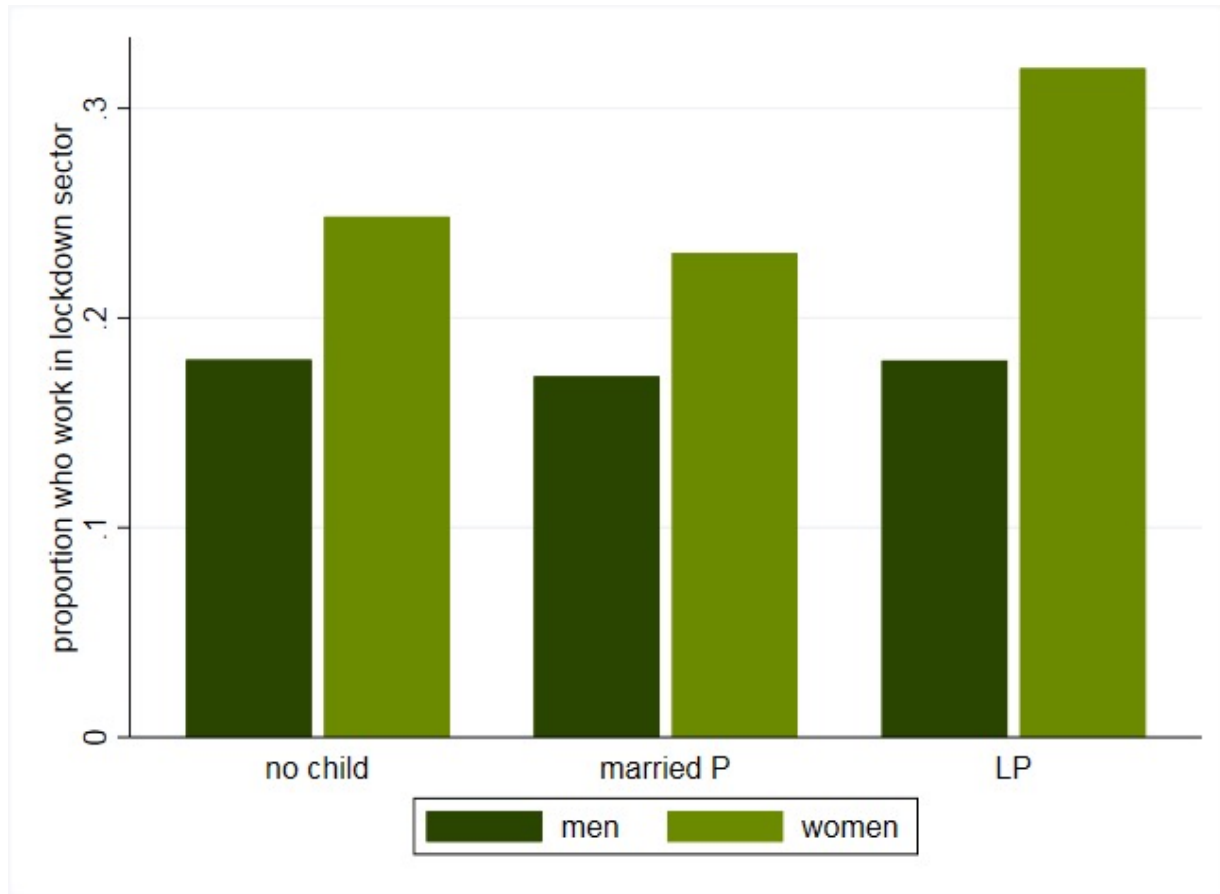
Source: Eurostat

Share of Population with Post A-level Qualifications



Source: Reproduced from Blundell et al. 2020 (Figure 1).

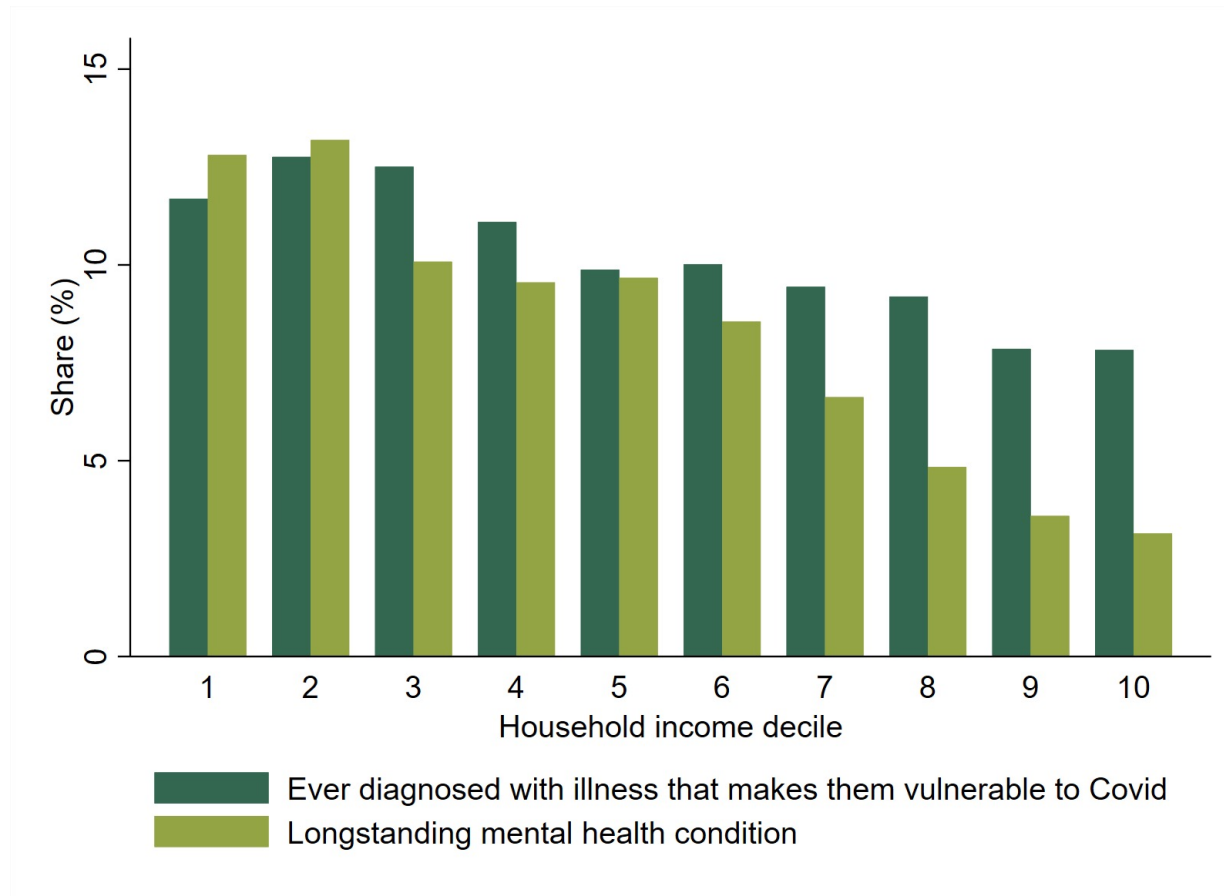
Proportion working in lockdown sector by family status and gender



Women less able to provide a buffer for family incomes.

Notes: IFS calculations. LFS for the years 2018-19, adults aged 20-60. Pay in Dec 2019 prices..

Medical vulnerability to virus or social isolation by household income



Notes: IFS calculations using UKHLS (ever diagnosed) and FRS (mental health). Diagnoses include asthma, congestive heart failure, coronary heart disease, emphysema, chronic bronchitis, cancer or malignancy, diabetes and high blood pressure. Mental health based on self-reported mental health condition lasting or expected to last over 12 months. Net incomes equalised using modified OECD scale.