

Talk for ESRC Festival of Social Science, Brighton, November 9 2010

Trends in UK Wage Inequality

Stephen Machin

Issues and Questions

- Studying changes in the inequality of labour market earnings has been a major focus of economists and other social scientists for a long time, but this research area has experienced a significant resurgence in the recent past as wage structures have altered significantly in many countries.
- Use this talk as an opportunity to present an up-to-date picture of what has happened to wage inequality in the UK, place into international context and highlight some of the more recent trends.

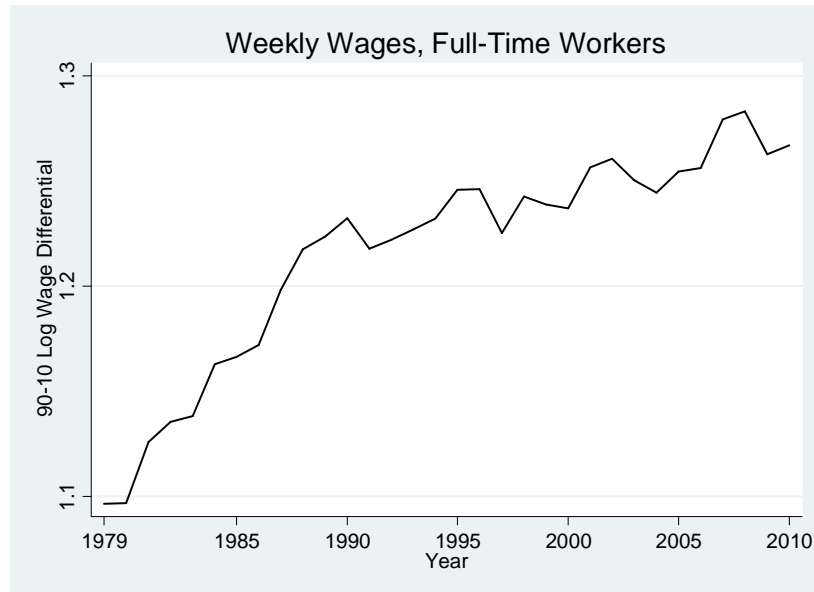
Structure of Talk

Present up to date evidence on changes in UK wage inequality:

- changes in the wage structure;
- changes in educational wage differentials and in education supply and demand;
- labour market polarization;
- international comparison;
- more recent features of rising wage inequality.

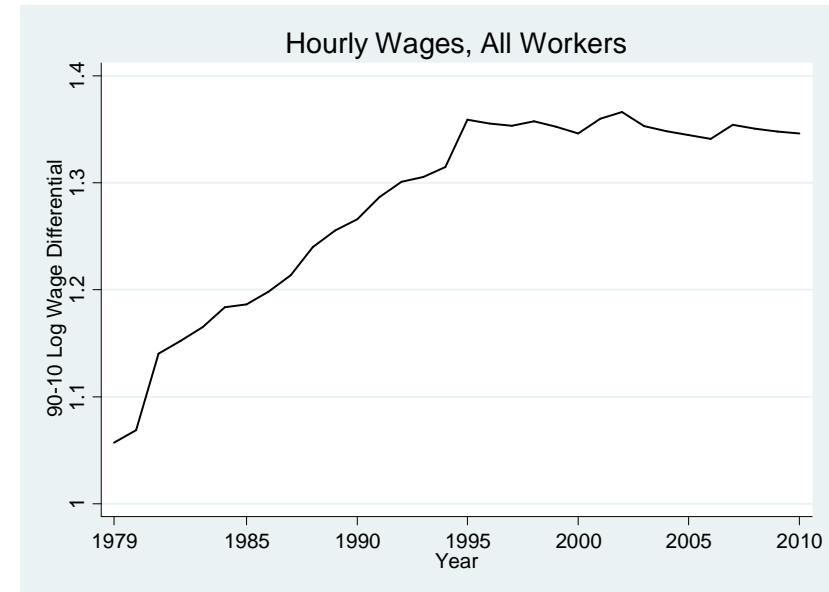
Trends in Overall Wage Inequality Since 1979

90-10 Log Wage Differentials, NES/ASHE



Annualised increase:

1979-2010: 0.5

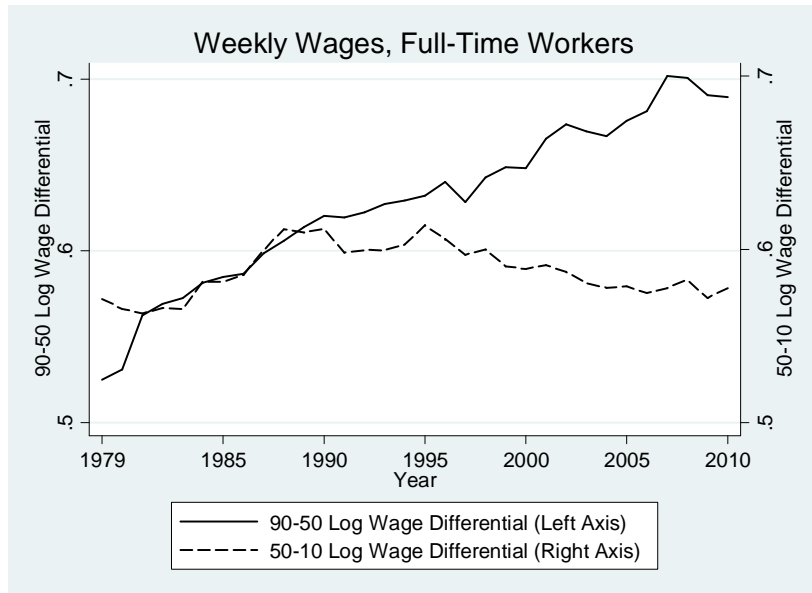


Annualised increase:

1979-2010: 0.9

Trends in Upper and Lower Tail Wage Inequality

90-50 and 50-10 Log Wage Differentials, NES/ASHE



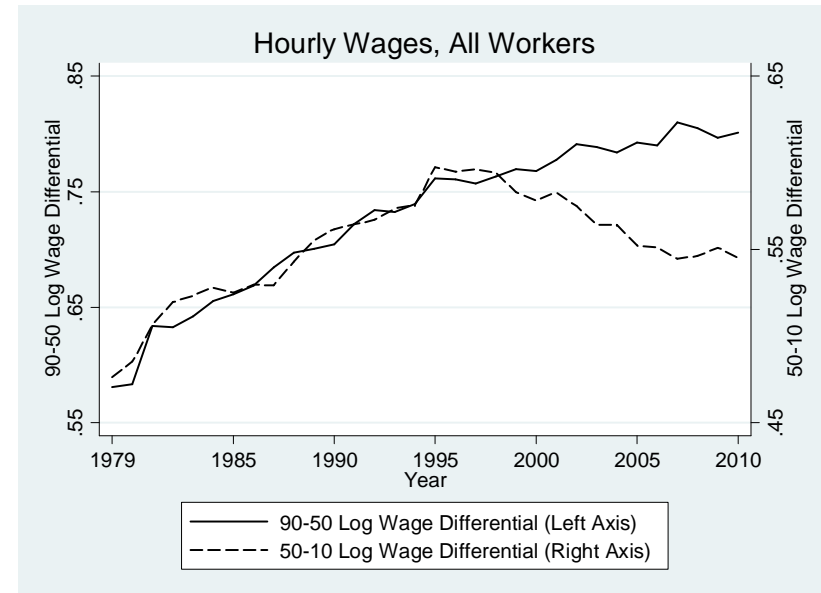
Annualised increase:

90-50

1979-2010: 0.5

50-10

1979-2010: 0.0



Annualised increase:

90-50

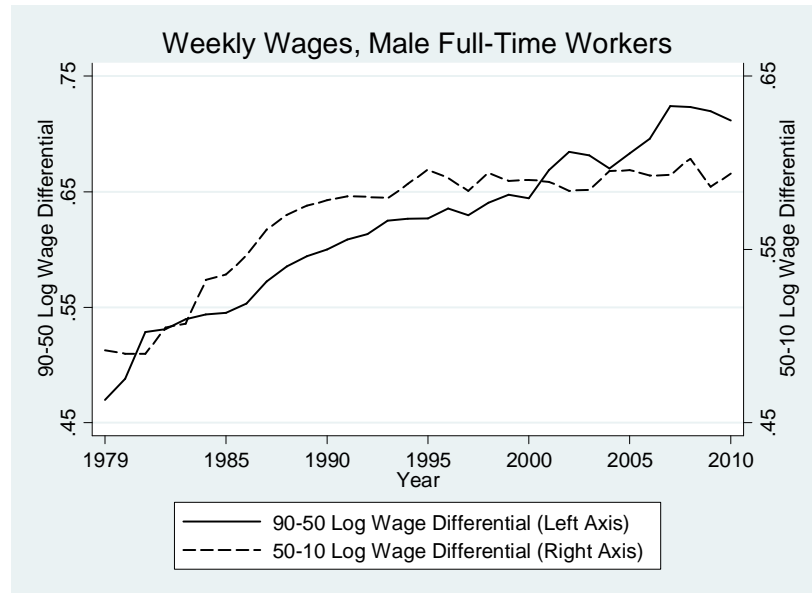
1979-2010: 0.7

50-10

1979-2010: 0.2

Trends in Male Upper and Lower Tail Wage Inequality

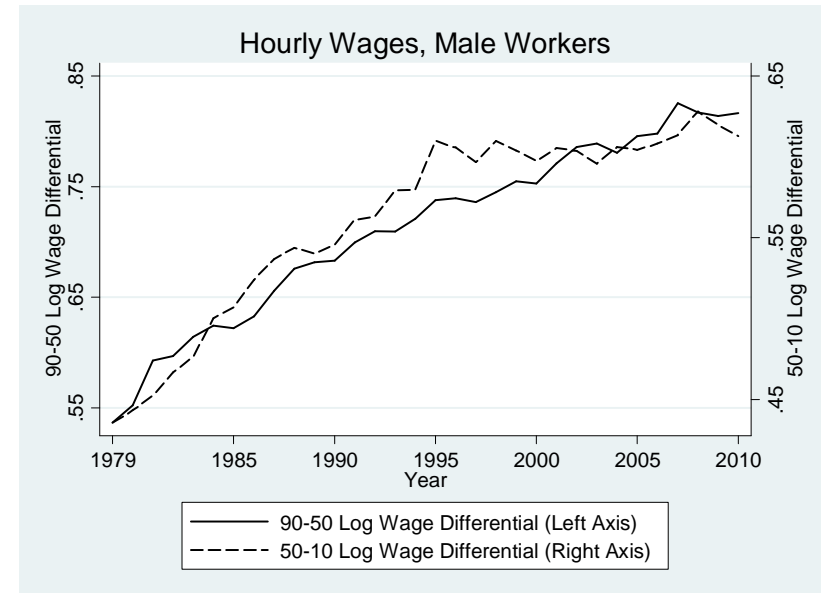
90-50 and 50-10 Male Log Wage Differentials, NES/ASHE



Annualised increase:

90-50
1979-2010: 0.7

50-10
1979-2010: 0.3



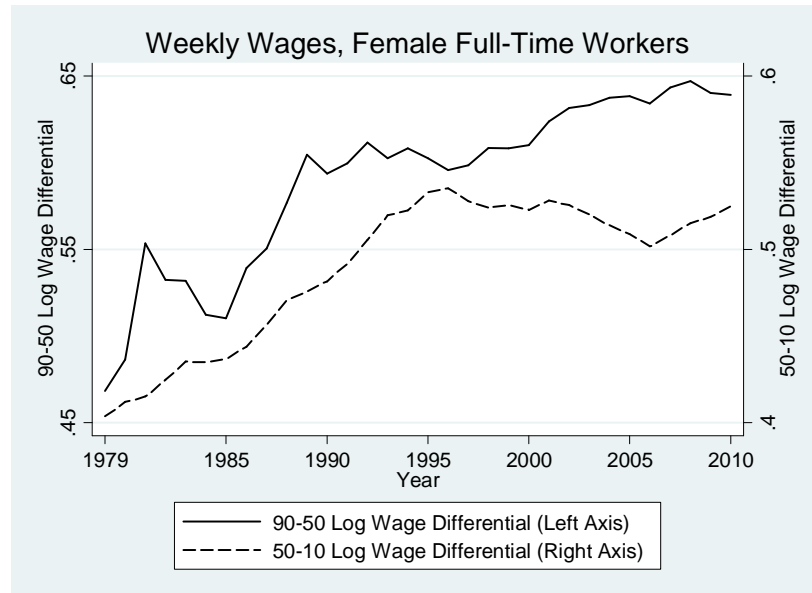
Annualised increase:

90-50
1979-2010: 0.9

50-10
1979-2010: 0.6

Trends in Female Upper and Lower Tail Wage Inequality

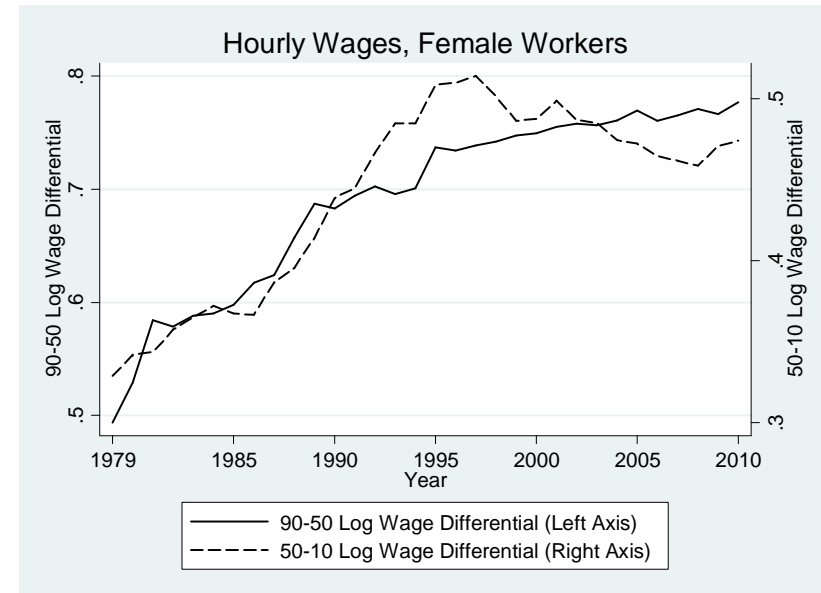
90-50 and 50-10 Female Log Wage Differentials, NES/ASHE



Annualised increase:

90-50
1979-2010: 0.5

50-10
1979-1997: 0.4



Annualised increase:

90-50
1979-2010: 0.8

50-10
1979-2010: 0.5

The Role of Relative Supply and Demand and of the Changing Role of Labour Market Institutions

- Economic literature emphasises changing return to education/skill as outcome of shifts in the relative demand and supply of more and less educated workers.

- Also, a role at the bottom end for the changing role of labour market institutions (typically pitched as union decline and falling relative minimum wages).

Education Supply Increased Rapidly

Graduate Employment Shares

1979	1997	2010
0.047	0.137	0.260

Graduate Hours Shares

1979	1997	2010
0.048	0.147	0.270

But Relative Wages of Graduates Also Rose

Graduate Wage Premium (se)		
1979	1997	2010
0.321	0.417	0.452
(0.016)	(0.006)	(0.006)

And So Relative Demand For More Educated Workers Increased

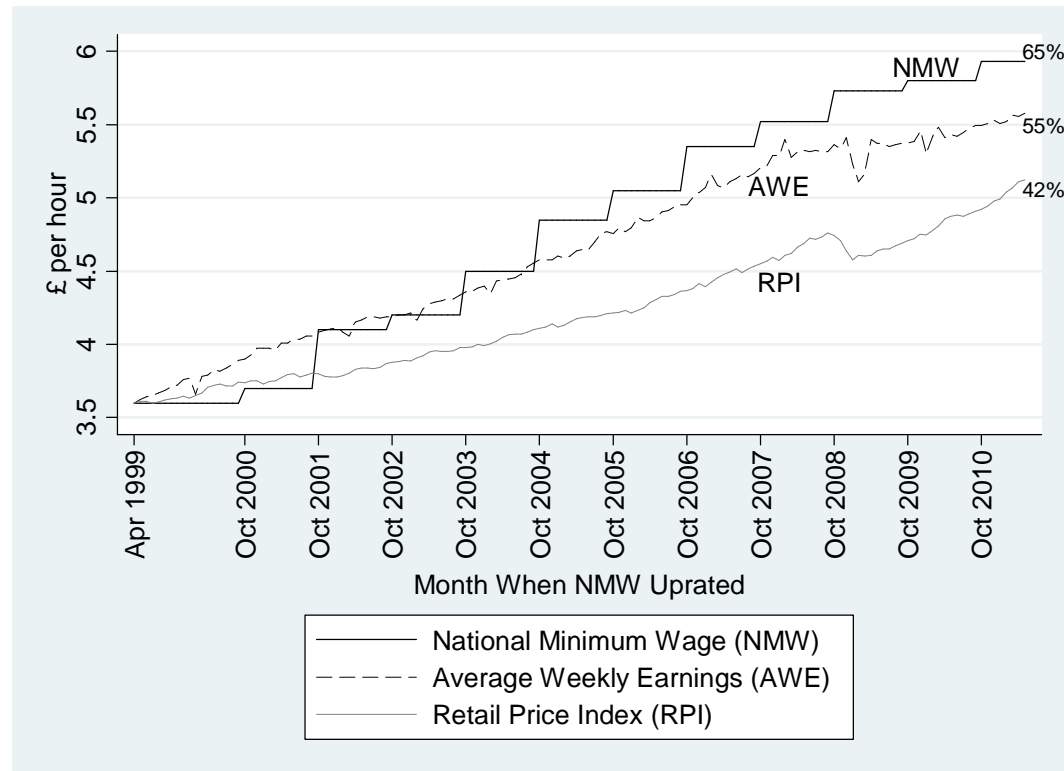
Annual Log Changes	1979-1997	1997-2010
Change in Graduate Wage Premium	0.53	0.27
Change in Relative Supply	6.39	6.10
Change in Relative Demand ($\sigma_E = 2$)	7.45	6.62

Notes: The relative demand shifts are calculated as $\log(H^G/H^N) + \sigma_E \log(W^G/W^N)$, where $\log(H^G/H^N)$ is the log relative supply of graduate and non-graduate equivalent hours (from the data summarised in Table 4), σ_E is the elasticity of substitution between graduates and non-graduates and $\log(W^G/W^N)$ is the composition adjusted graduate/non-graduate log wage differential (from the estimates in Table 5).

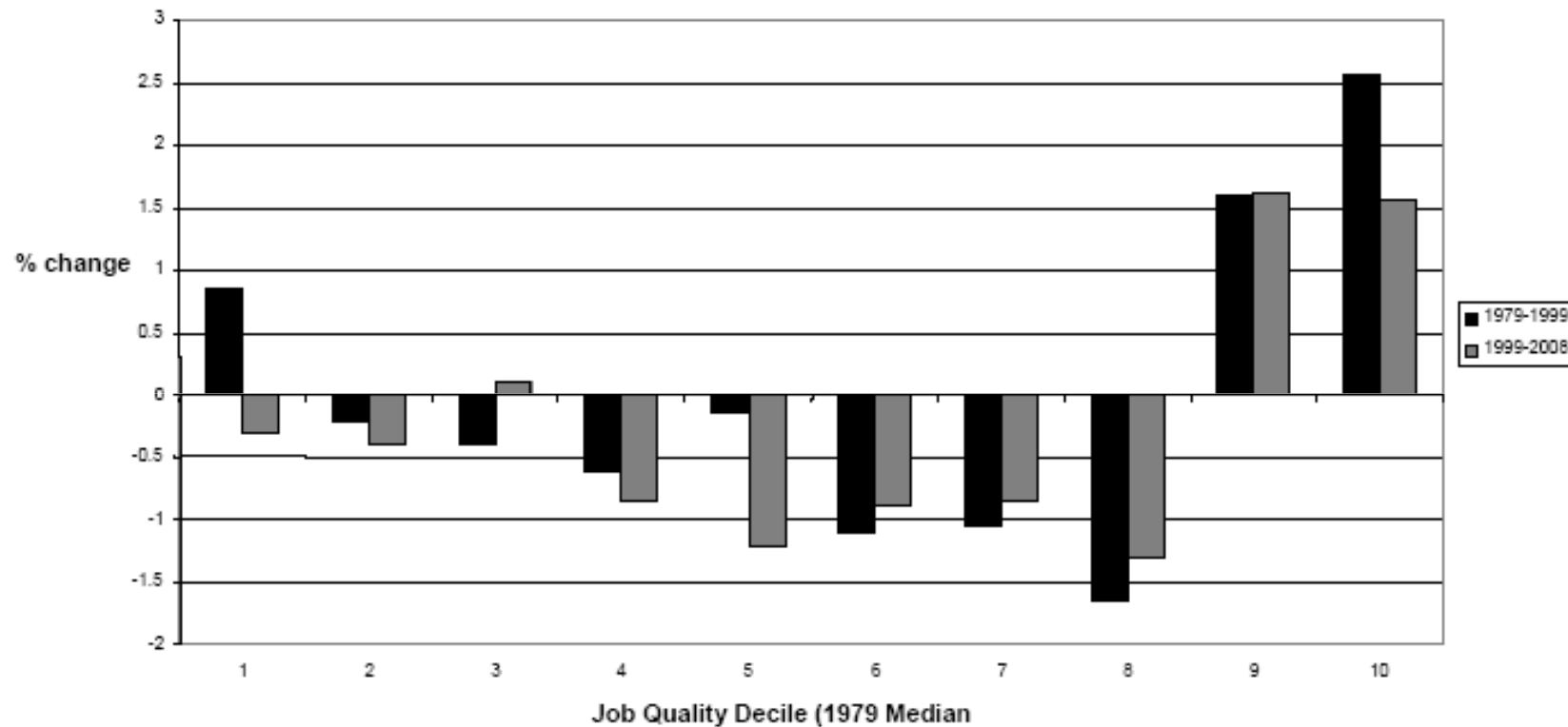
Union Decline

	Annualised Changes				
	1979	1997	2010	1997-1979	2010-1997
Union Members (Millions)	13.212	7.801	7.329	0.300	0.036
Union Density	0.524	0.294	0.253	0.013	0.003

But Introduction of NMW Which Grew Faster Than Average Earnings



Labour Market Polarization



Notes: Taken from Mieske (2009). Percent changes are now annualised to permit comparability across the sub-periods.

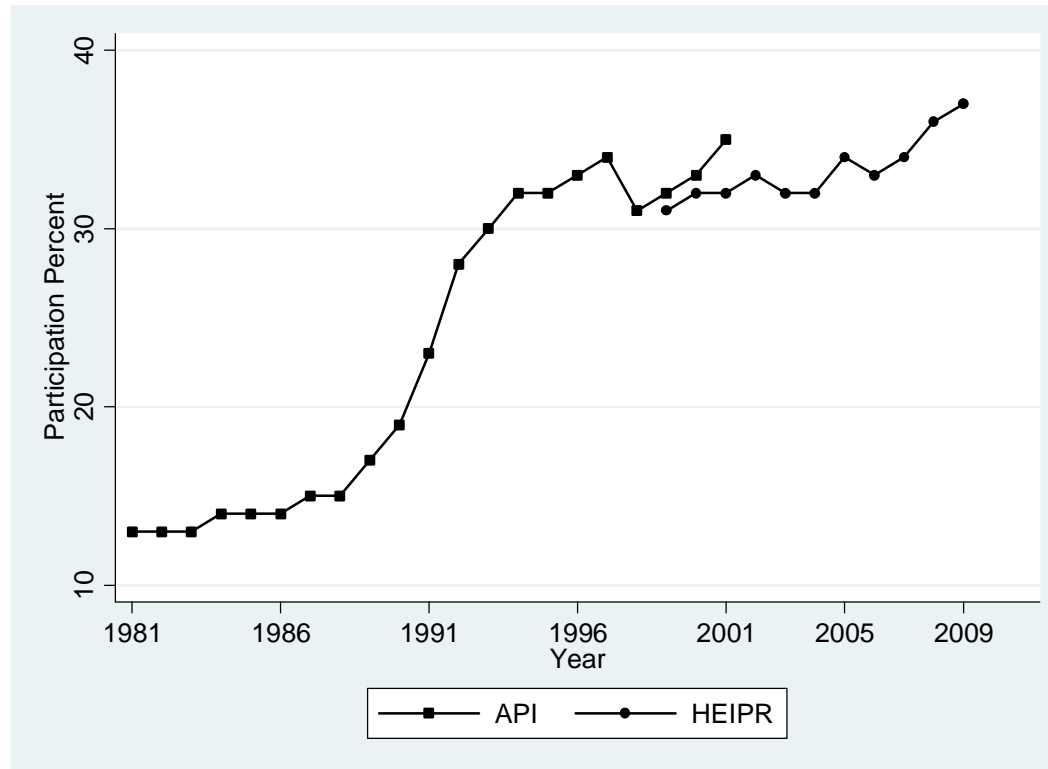
International Comparison (Male FT 90-10 Ratio)

	1980	1990	2000	2010
Australia	2.7	2.7	3.1	3.6
Finland	2.4	2.6	2.5	2.6
France	3.4	3.4	3.3	3.0 ^a
Japan	2.6	2.8	2.8	2.9
Korea	4.1	3.2	3.7	4.5
Sweden	2.0	2.0	2.4	2.4
UK	2.7	3.3	3.5	3.7
US	3.6	4.4	4.8	5.1

Notes: 90-10 male full-time weekly earnings ratio. From OECD Stat Extracts database.

All countries with data for 1980, 1990, 2000 and 2010 (a subscript denotes 2009).

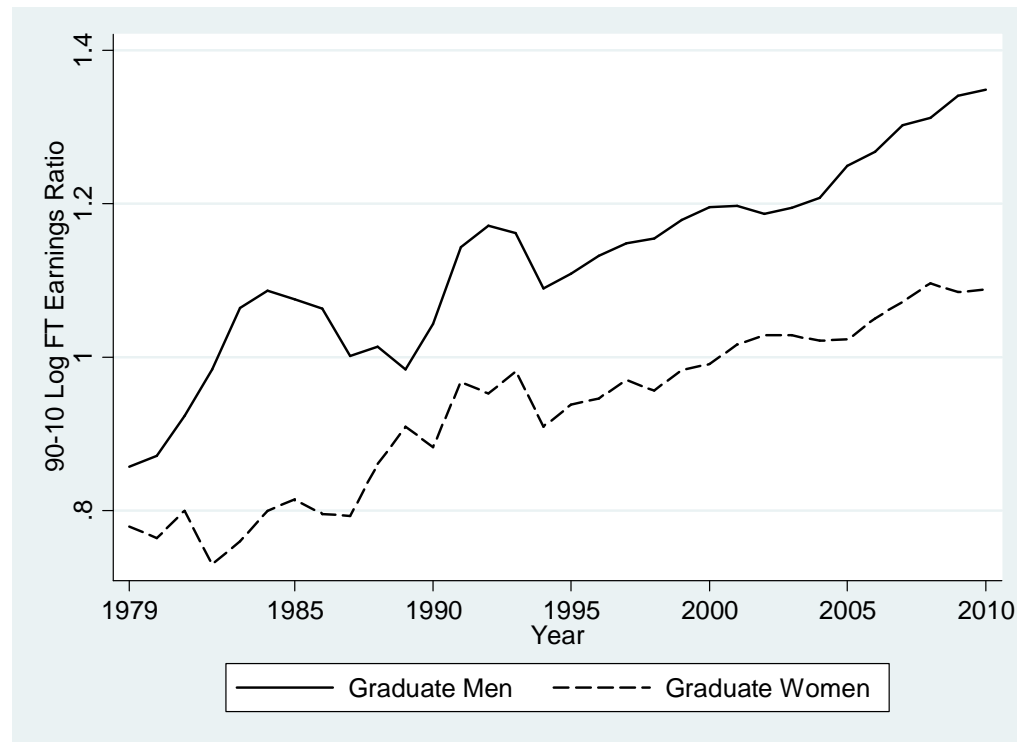
Trends in HE Participation



Notes: The Age Participation Index (API) is the number of domiciled young people (aged less than 21) who are initial entrants to full time and sandwich undergraduate courses as a percentage of the 18 to 19 year old GB population. The API was discontinued in 2001 and replaced by the Higher Education Initial Participation Rate (HEIPR), which has a different definition as it covers entrants to HE from different age groups (for the one reported here covering ages 17 to 20).

Graduate Wage Inequality (Full-Time 90-10 Log Weekly Wages)

Great Britain, 1979 to 2010

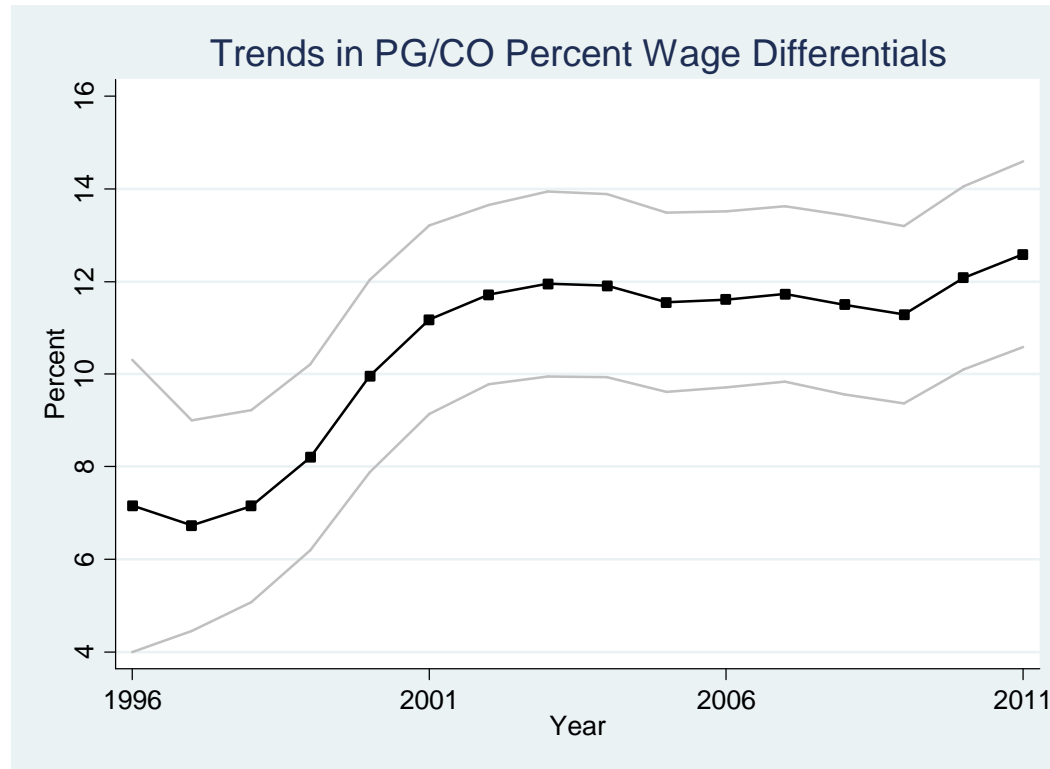


More and More Education

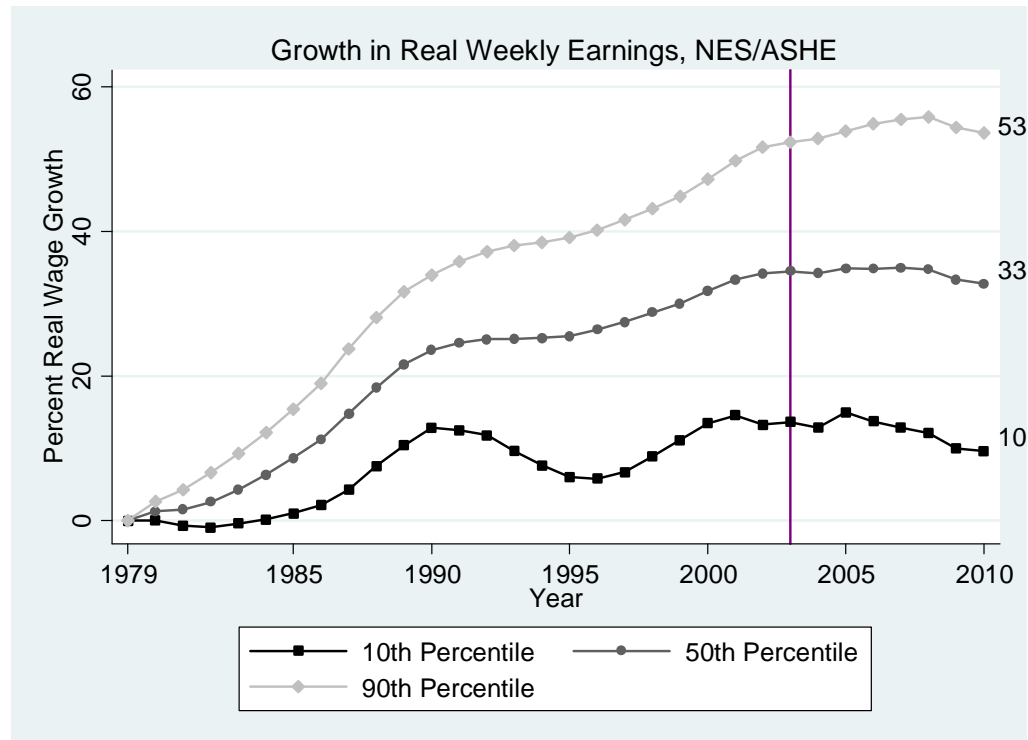
	1996	2010
Share of graduates in employment	0.145	0.304
Of which:		
Undergraduate	0.101	0.194
Postgraduate	0.044	0.110
Share of postgraduates in graduates	0.301	0.362

Notes: From Labour Force Surveys. Employment shares are defined for people in work with 0 to 39 years of potential experience and aged 26 to 60.

Postgraduate/College Only Wage Differentials



The Slowdown of Real Wages



→ Slowdown and subsequent stagnation and falls. Starts somewhere in early 2000s (line at 2003).

Changes at the Top (Survey of Personal Incomes)

	1992/93	2000/01	2009/10
90-50	2.22	2.31	2.38
95-50	2.88	3.15	3.22
99-50	5.46	6.89	7.60
95-90	1.30	1.37	1.36
99-90	2.46	2.98	3.20
99-95	1.90	2.18	2.36

Notes: Annual total income before tax (all taxpayers) from Survey of Personal Incomes.

Conclusions 1

- Wage inequality is significantly higher now than it was in the past.
- This is the case for upper and lower tail wage inequality.
- There are decade to decade differences in the patterns of change and it seems clear that the 1980s was the period where wage inequalities seemed to open out at all parts of the distribution.
- After that the picture has become more complex.

Conclusions 2

- In terms of explanations, it seems reasonable (to me) to conclude that the evidence shows the wage distribution has been characterized by long-run growth in the relative demand for skills driven by technology change (rather than trade). This is particularly relevant for the long trend upwards in upper tail wage inequality.
- Changes in skill supply and institutional changes have affected the timing of how skill-biased and task-biased technical change impact upon the wage structure in different contexts, especially for the evolution of the lower tail.
- The patterns of change are in line with the economic models of a race between demand and supply (vis technology and education) driving longer run wage inequality changes coupled with less of a role for declining labour market institutions in the 2000s.

Conclusions 3

- More recent (less well known) dimensions of wage inequality changes are:
 - Quest for more and more education: rising inequality within the graduate group: increased postgraduate wages.
 - Real wage slowdown and 'squeezed middle'
 - 2000s sharp increases for top 1 percent (and higher).

Selected References

- Gregg, P. and S. Machin (2012) Real Wages and Unemployment in the Big Squeeze, Centre for Economic Performance mimeo.
- Lindley, J. and S. Machin (2011) Postgraduate Education and Rising Wage Inequality, Centre for Economic Performance Discussion Paper No. 984 and IZA Discussion Paper No. 5981.
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