

# **Immigration and the UK Labour Market in the Recession**

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While immigration to the UK reached a high point in 2008, historically  
1) the supply of immigrants has fallen in a recession (reflecting reduced opportunities)

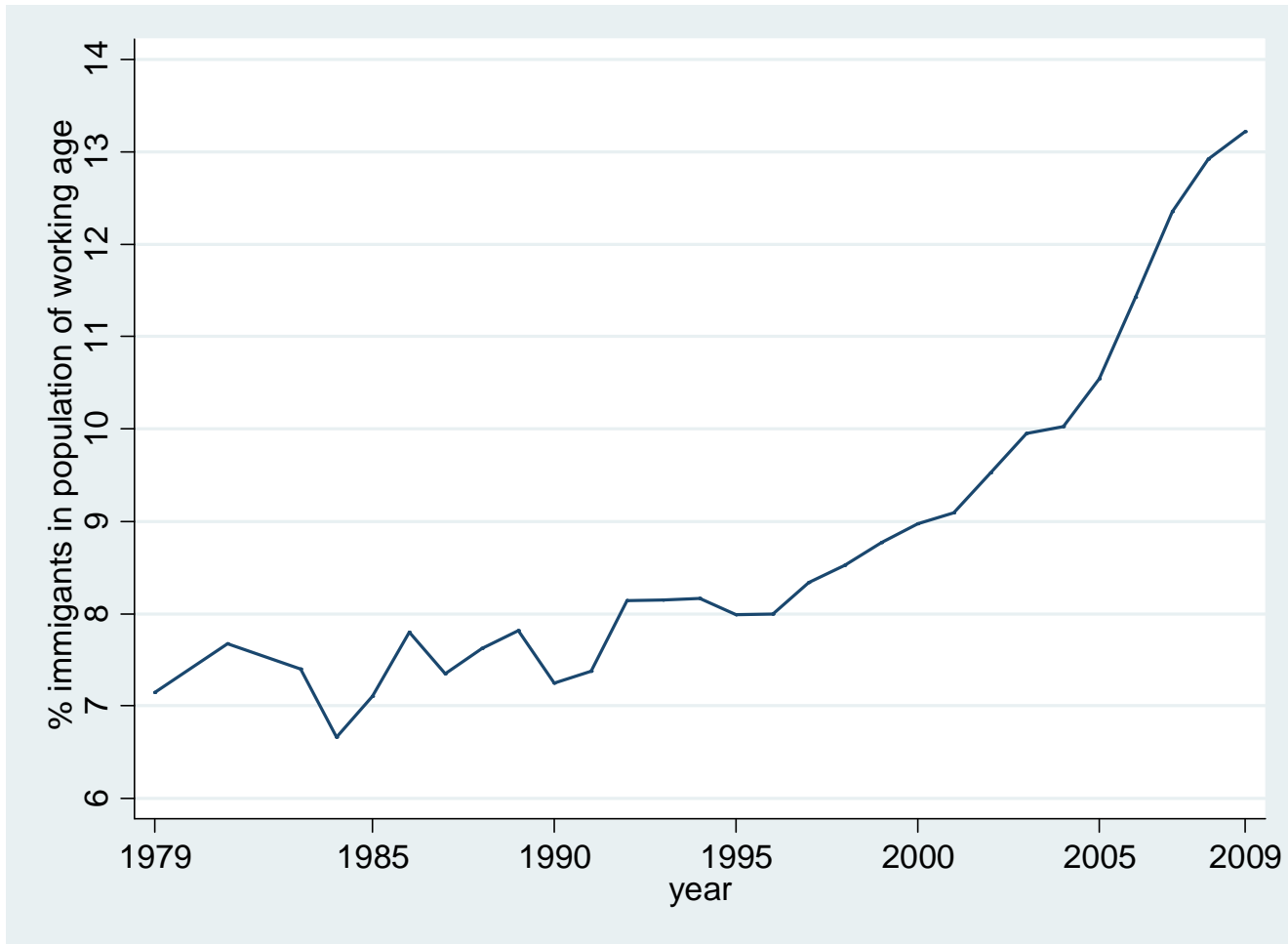
2) the economic performance of immigrants has worsened relative to that of UK-born workers.

-(unemployment rates for immigrants have typically risen faster and further in a recession)

However, in the 2008-2009 recession and afterwards, while supply did fall, the relative labour market performance of immigrants did **not** worsen

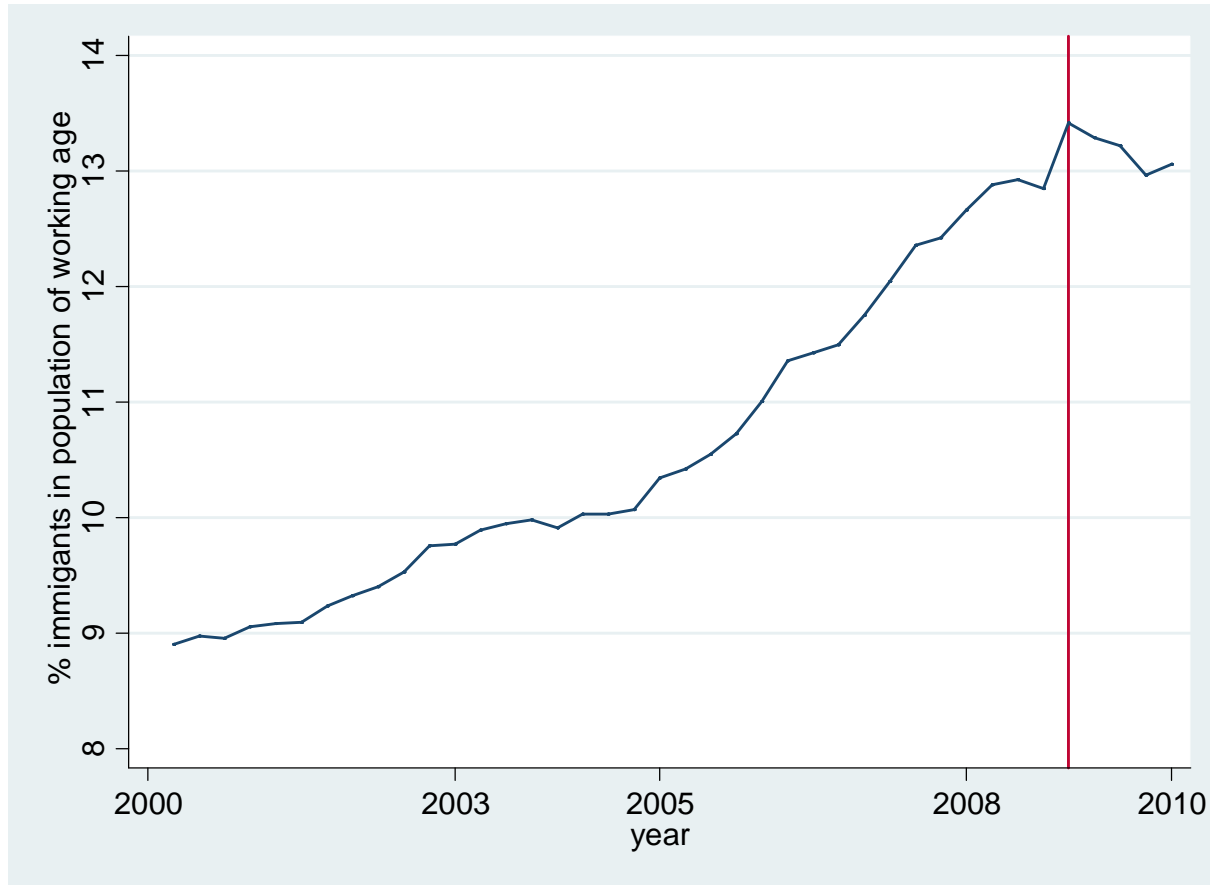
In what follows we examine possible explanations for this development, focusing on changes in the age, skill and regional distribution mix of characteristics in the immigrant and UK-born populations over time.

### A. Long run – % of immigrants in working age population, 1979q2-2009q2



Can see (small) falls in stock in previous recessions

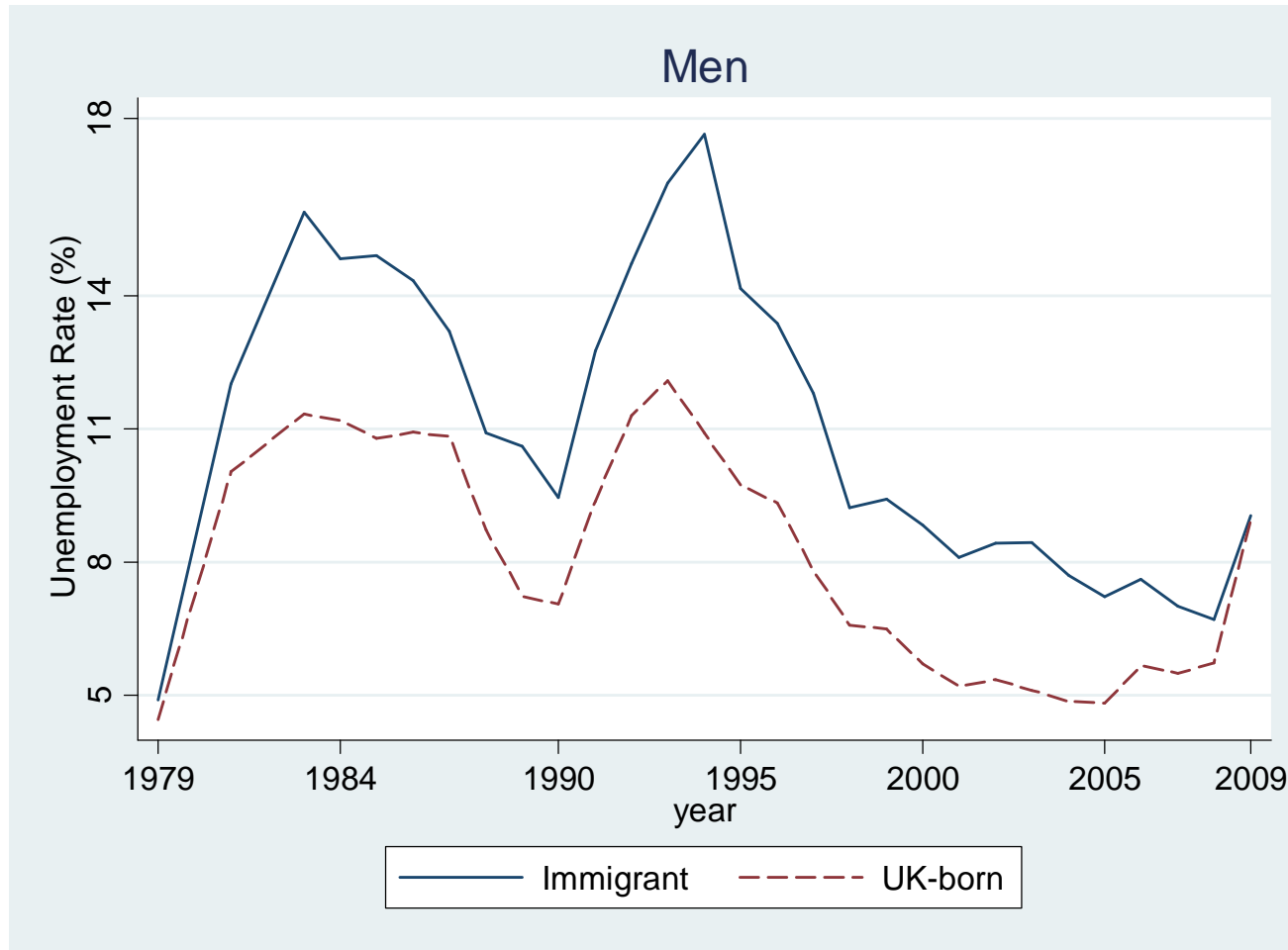
## B. Short run: % of immigrants in working age population, 2000q1-2009q4



Source: Labour Force Survey

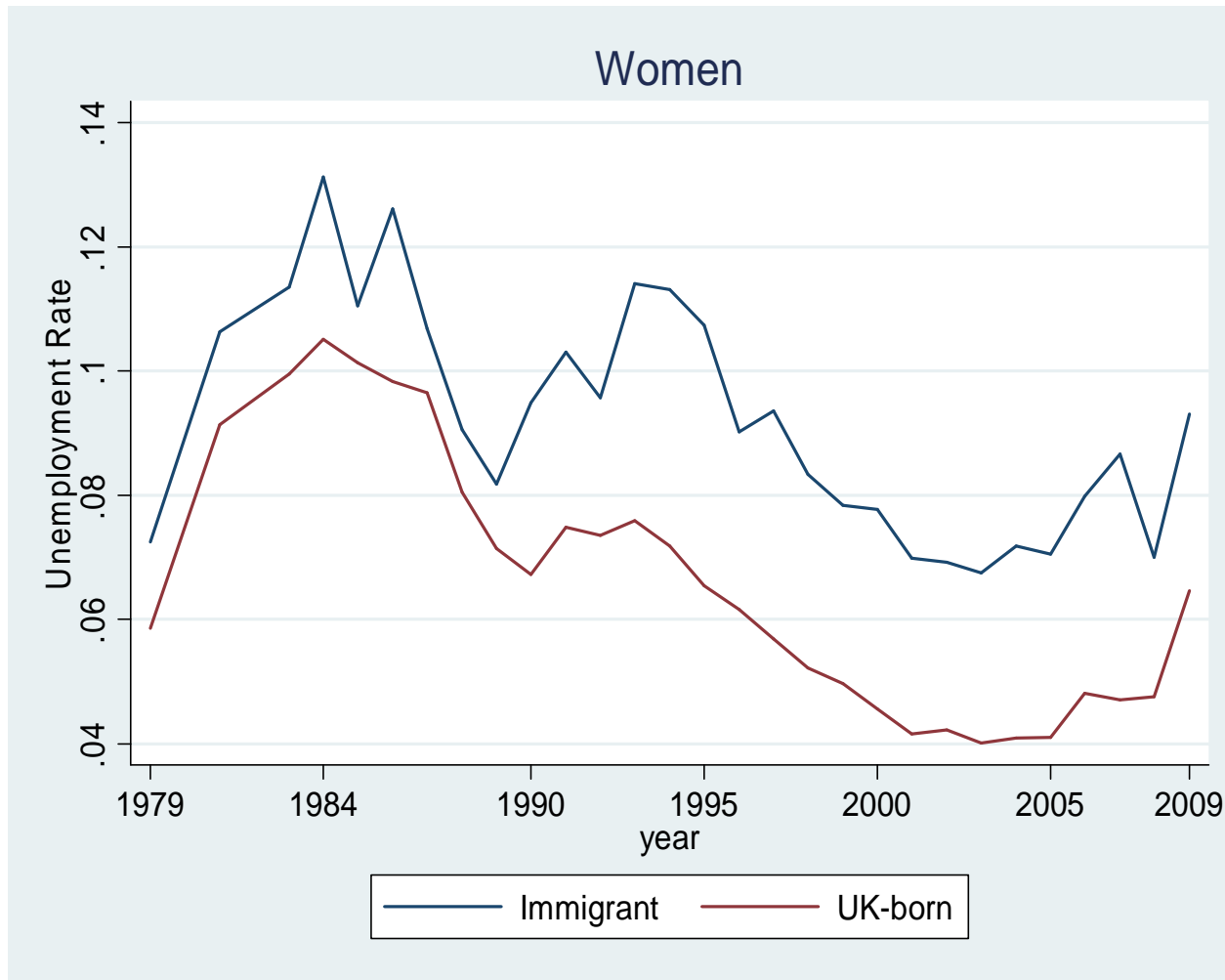
Stock began to fall back at the end of 2008 q4, 6 months after start of recession

# Unemployment for immigrants and UK-born men

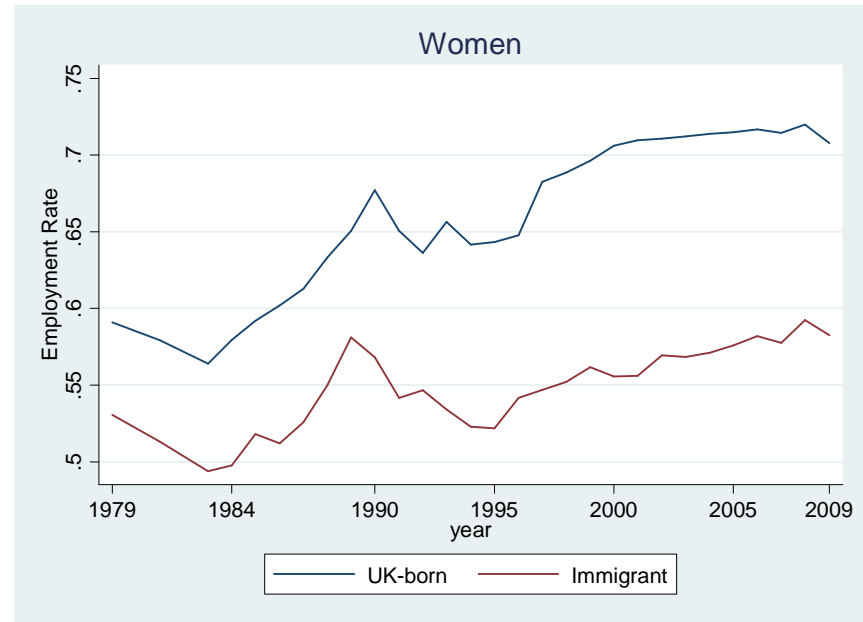
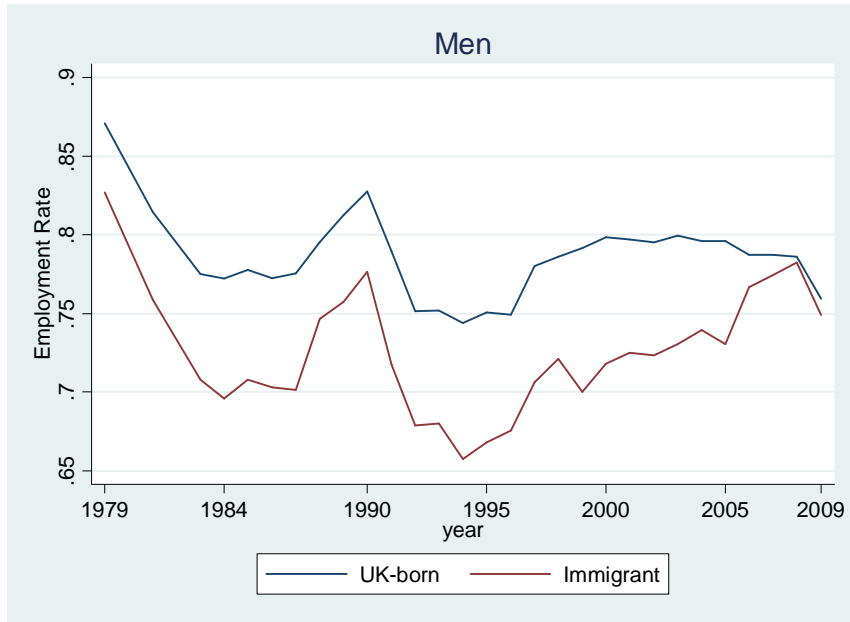


Source: Labour Force Survey

(though pattern less obvious for women)



And similarly for employment (convergence for men in 2008)



Much of academic debate in economics about the labour market effects of migration continue to be based around the evidence of the degree of substitution between immigrants and native-born

- The greater the degree of substitution the more downward pressure on wages and employment for all groups

Can estimate this by looking at relative wage of UK-born wrt immigrants conditional on relative supply. Assuming a CES production function

$$Y_t = A_t \left[ \theta_t L_{1t}^\rho + L_{2t}^\rho \right]^{\frac{1}{\rho}} \quad (1)$$

where 1 is skilled labor, 2 is unskilled labor and  $L_{et}$ ,  $e=1, 2$  denotes the aggregate labor input for workers with skill  $e$  at time  $t$ .  $A_t$  is a skill-neutral technology parameter,  $\theta_t$  is the efficiency of skilled relative to unskilled labor rise in  $\theta_t$  represents skill-biased technical change. The elasticity of substitution between skilled and unskilled labor is  $\sigma_E=1/(1-\rho)$ .

From this can derive an expression that gives relative wages between immigrants and UK-born in any group as depending on the relative supply of immigrants and natives in the same group

$$\ln(W_{eat}^N/W_{eat}^M) = \beta - 1/\sigma_1 \ln(N_{eat}/M_{eat})$$

(coefficient is inverse of elasticity of substitution,  $0 \Rightarrow$  perfect subs, so  $\sigma_1 = \infty$  )

- the larger is  $1/\sigma_1$  (in absolute terms) the more inelastic the degree of substitution and the greater is the concentration of the wage effects caused by rising immigrant inflows on immigrants (since rising labour supply puts more pressure on wages of closest substitutes and this is previous immigrants rather than UK-born)

Given this we want to know if narrowing of employment gap between (male) immigrants and UK-born workers in the UK over time can be explained by increasing similarity in (observed) characteristics between UK-born and immigrants

Increased similarity means increased substitution possibilities and a greater likelihood of similar labour market experience

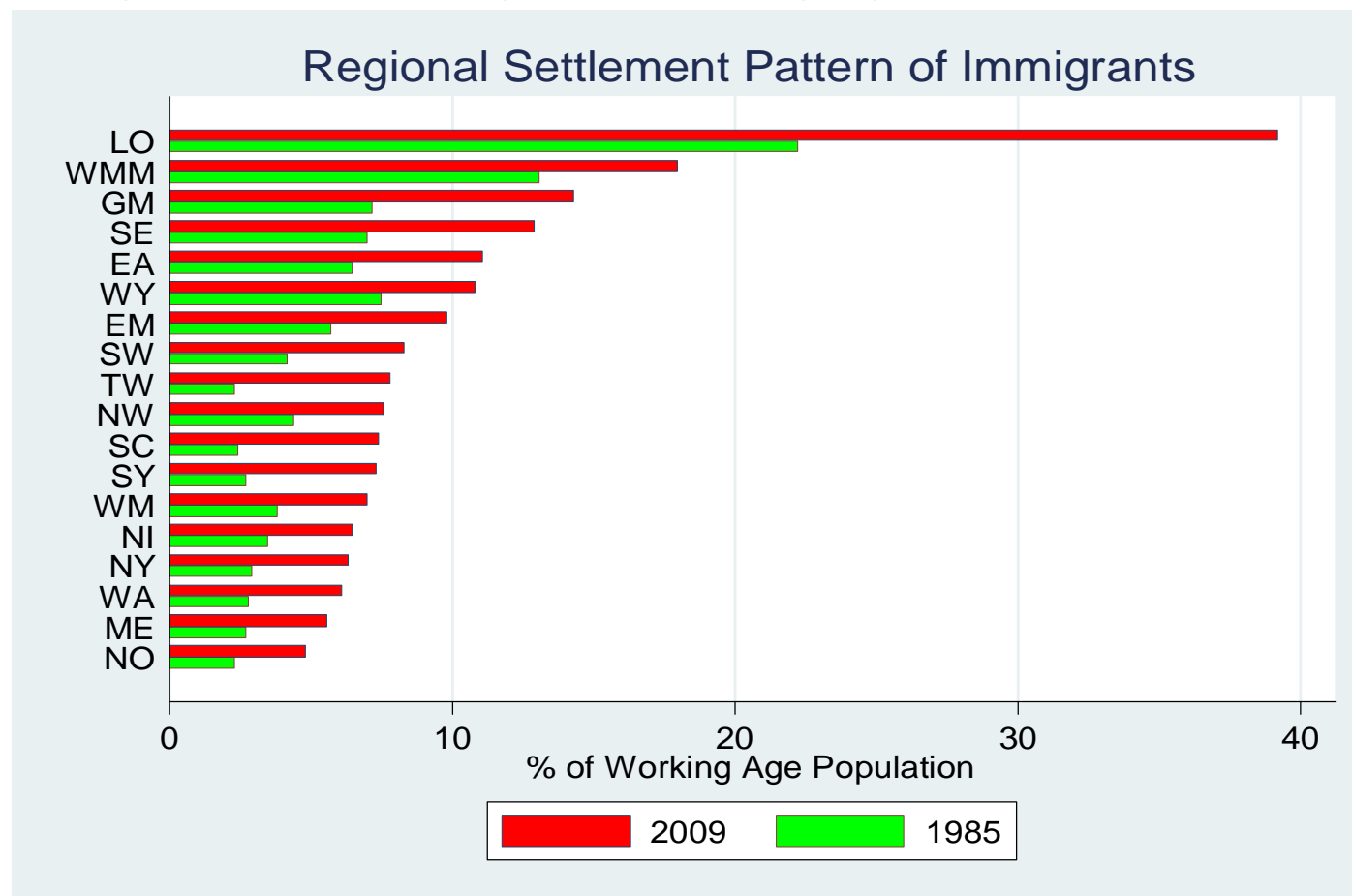
Focus on Region, Age & Education

## *Where do immigrants settle?*

Immigration is centred on London. 35% of all immigrants to the UK live in London and 39% of London's population are immigrants.

This reflects a combination of demand and immigrant preferences for labour market opportunities and networks

## Immigrant share of regions' working age populations



Source: Labour Force Survey

Note: LO=London, WMM=West Midlands Met., GM=Greater Manchester, SE=South East, EA=East Anglia, WY=West Yorkshire, EM=East Midlands, SW=South West, TW=Tyne & Wear, NW=North West, SC=Scotland, SY=South Yorkshire, WM=Rest of West Midlands, NI=Northern Ireland, NY=North Yorkshire, WA=Wales, ME=Merseyside, NO=North of England

## *What skills do immigrants have?*

Immigrants are, on average, more educated than their UK-born counterparts, and the educational attainment gap has been rising over time since more recent immigrants are more educated, on average, than earlier cohorts of immigrants

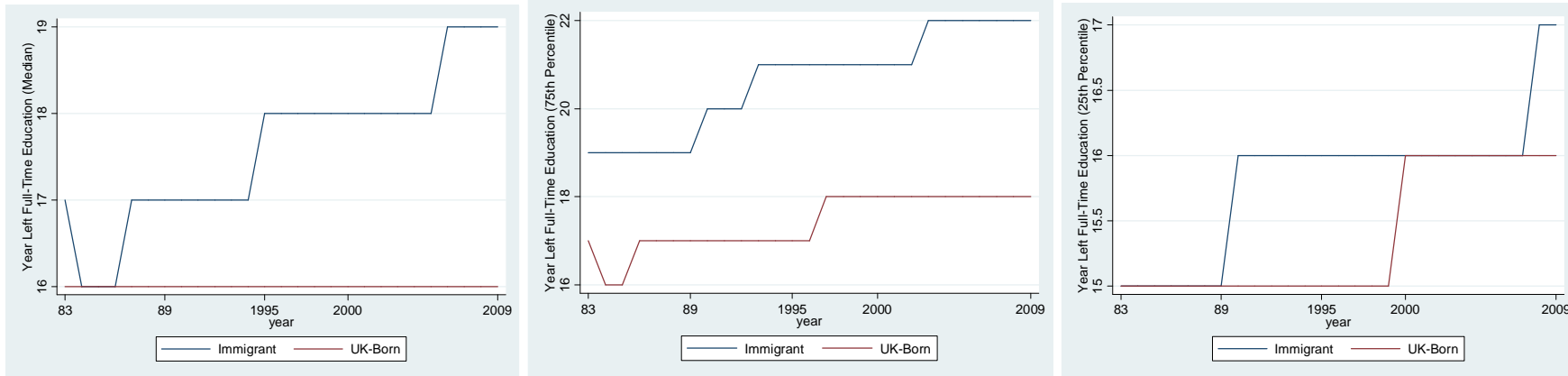
While more than half of the UK-born workforce left school at 16 or earlier, fewer than one in six new immigrants finished their education by the age of 16. Just under one in five UK-born members of the workforce finished education at 21 or later compared with more than one in three immigrants and more than 50% of all new immigrants.

## **Education and immigrant status (working age population), 1979 & 2009**

	Percentage of group with each level of education		
Age finished education	UK-born	All immigrants	New immigrants
<b>1979</b>			
16 or under	82.0%	61.3%	
17-20	13.6%	26.7%	
21 or older	4.4%	12.0%	
<b>2009</b>			
16 or under	53.1%	24.8%	15.4%
17-20	28.2%	36.5%	34.0%
21 or older	18.7%	38.7%	50.6

Source: Labour Force Survey

## Heterogeneity by education



Immigrants are typically more educated than UK-born and the gap has been rising over time (across the distribution)

-unsurprising given PBS/Work Permit restrictions?

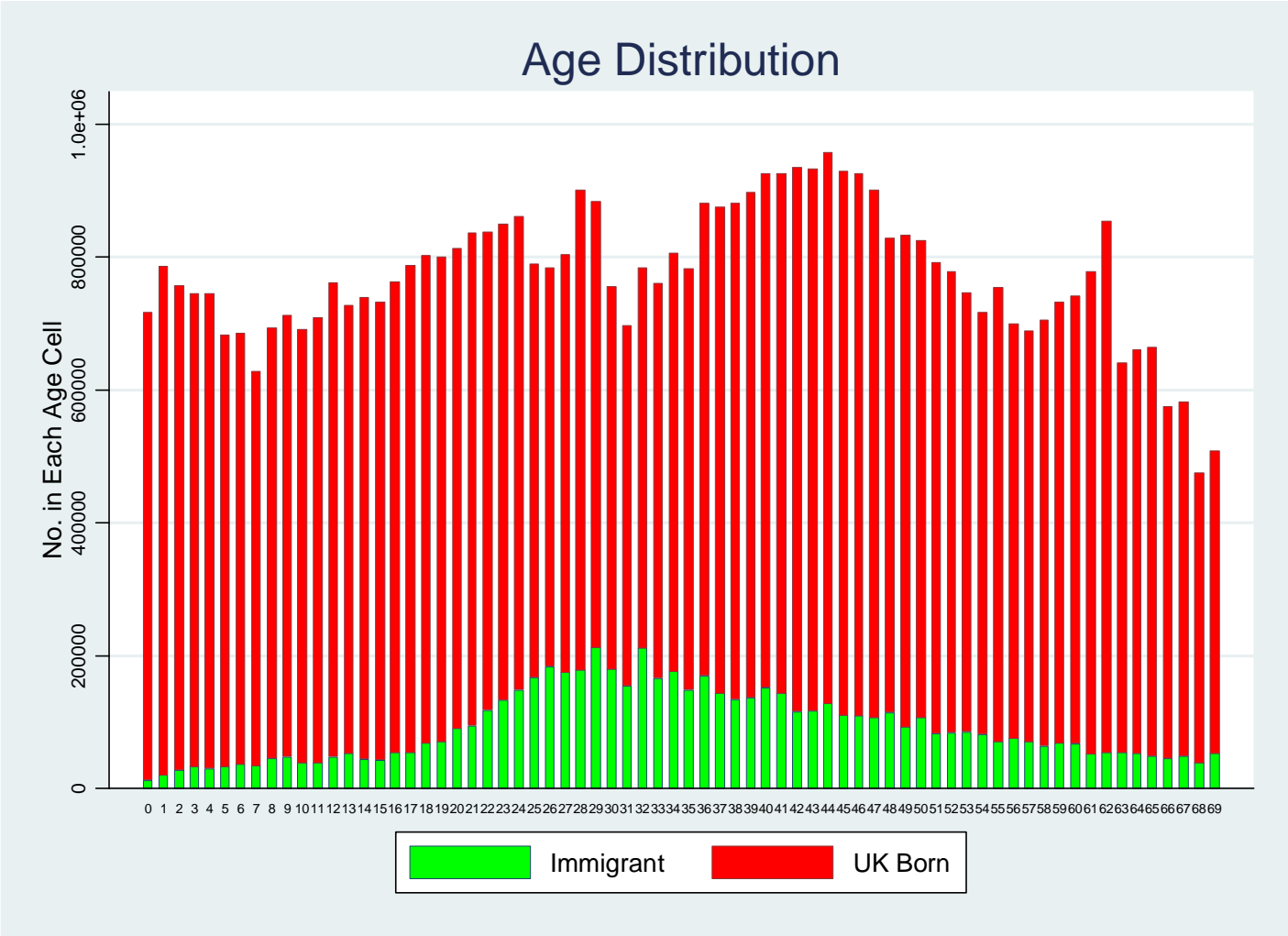
So should expect more supply pressure toward top of earnings distribution?

## Age

Substitution possibilities depends in part on the age structure of immigrants and natives.

(Eg. Older workers may be more experienced and closer substitutes for each other. Equally younger workers may be more flexible – ultimately this is an empirical matter)

# Numbers of immigrants in the UK by age group, 2009 (men and women), thousands



Source: Labour Force Survey

What explains the convergence in employment (unemployment rates) over time?

Age

Region

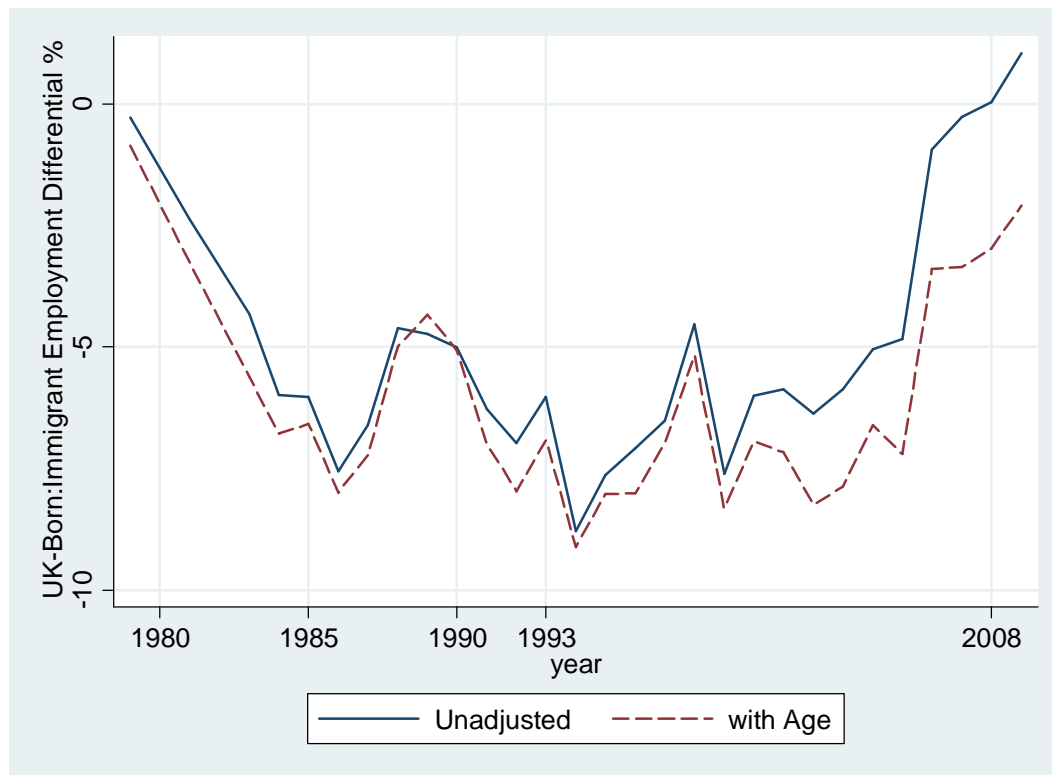
Education

$$E_{it} = \beta_0 + \beta_1 \text{Immig} + \sum \beta_i X_{it} + \varepsilon_{it}$$

i = 1... N  
t = 1979..2009

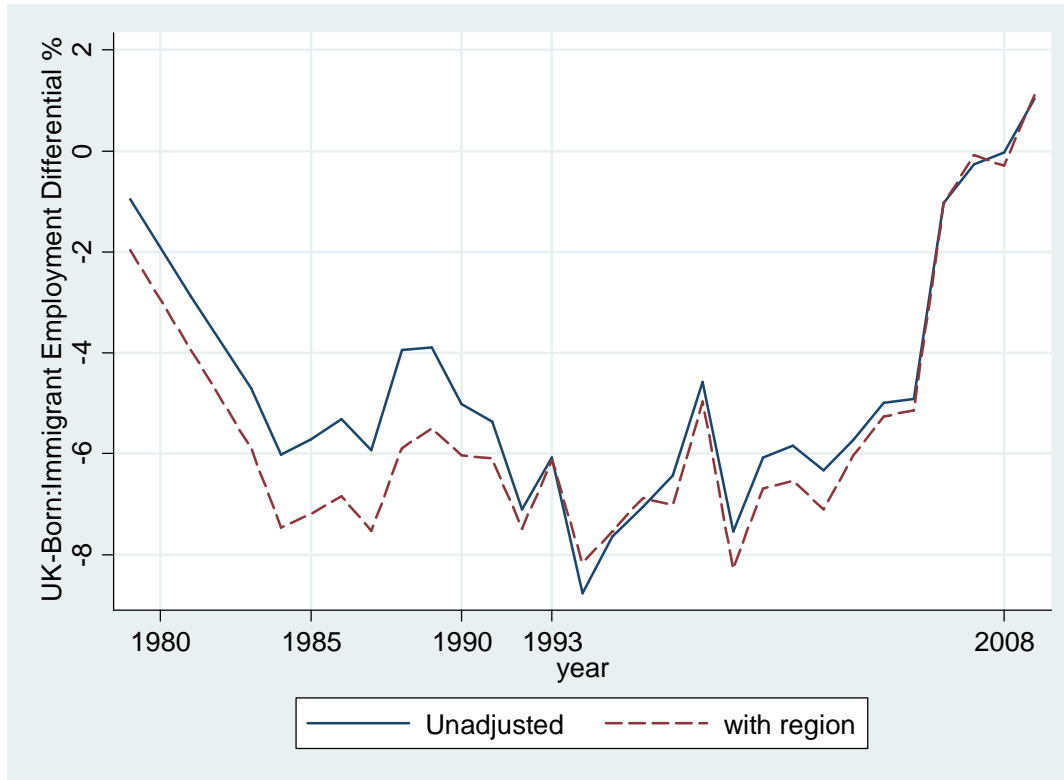
## Adjusting for differences in Age distribution between immigrants and UK-Born

### Employment Rate: Men



Accounting for age differences, **INCREASES** the gap (Immigrants are, on average, in mid to late twenties so less prone to non-employment. Once net out differences in age, the employment gap rises)

## Differences in regional concentration?

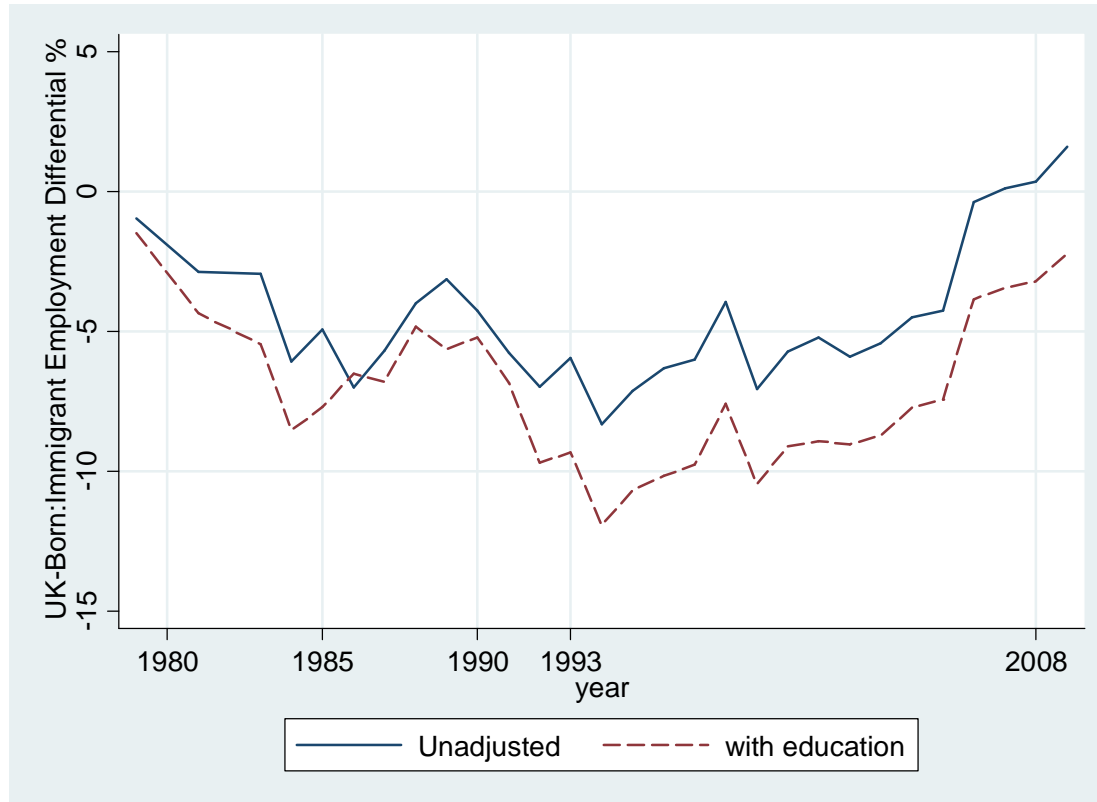


Immigrants were concentrated in high employment regions - tending to reduce the immigrant-UK-born employment gap

So when net this out, the gap widens

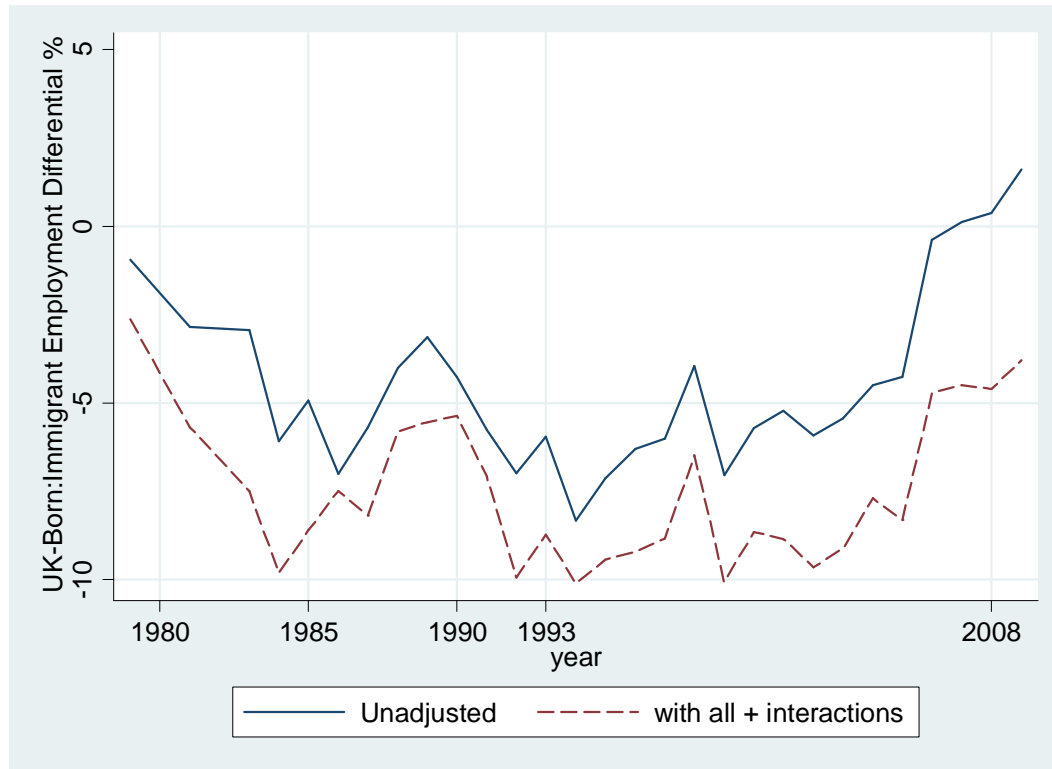
However now less important (suggests spatial distribution evening out or geographic differences in employment narrowing over time)

## Adjusting for differences in Educational Attainment



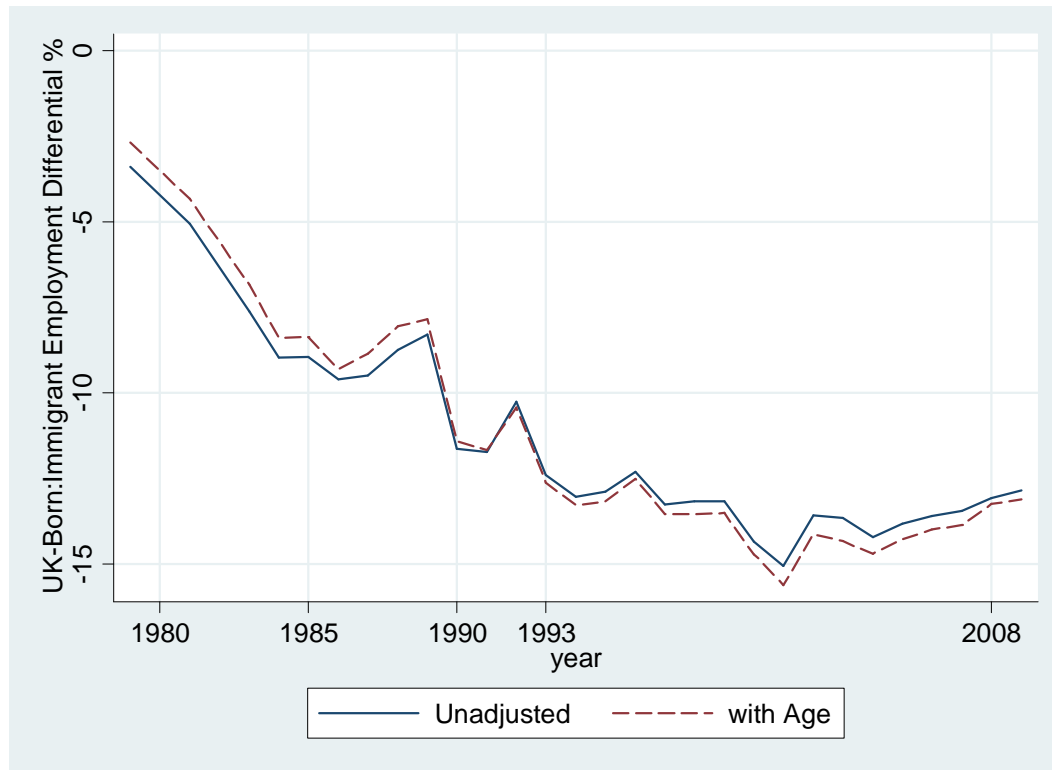
Immigrants more educated on average. This protects against unemployment reducing the differential. When control for this the employment gap widens. Gap has got wider over time confirming increased role for education

## Combining Age, Education & Region



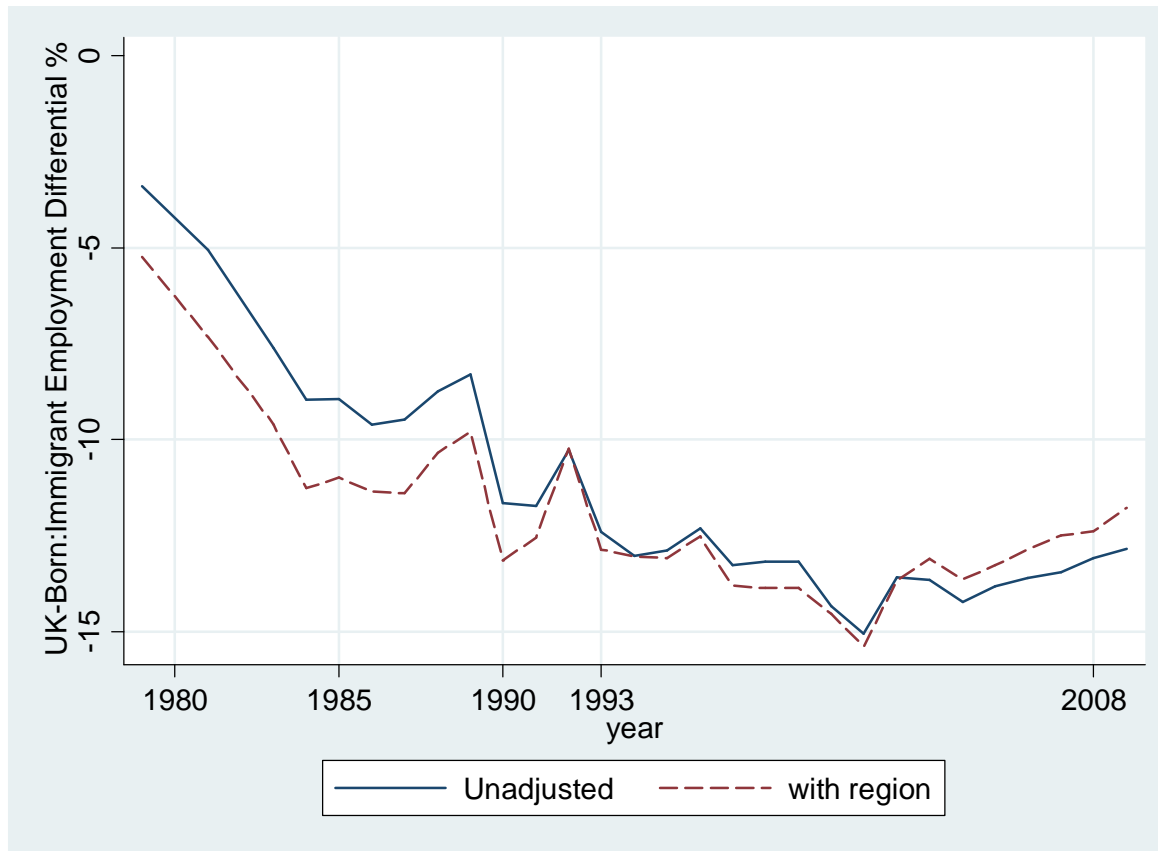
(Male) Immigrants have (always) had a combination of characteristics that reduce chances of becoming unemployed

For women effect of controls is different



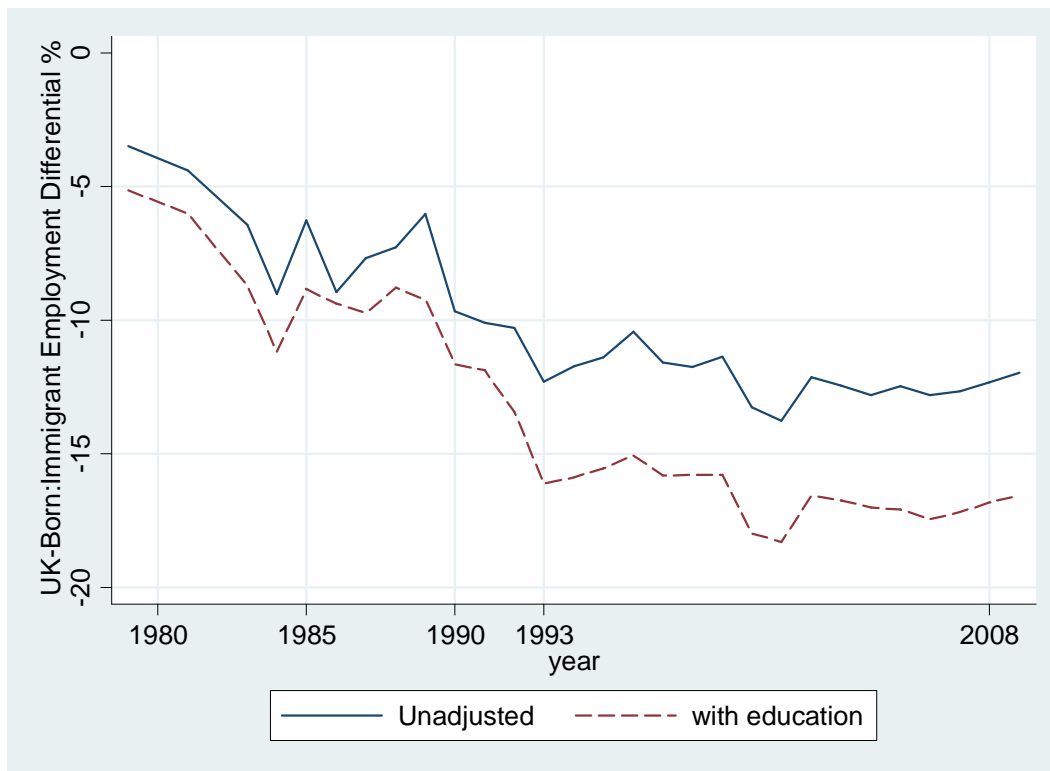
Age pattern reversed over time

Female immigrants increasingly younger



Regional pattern reversed over time

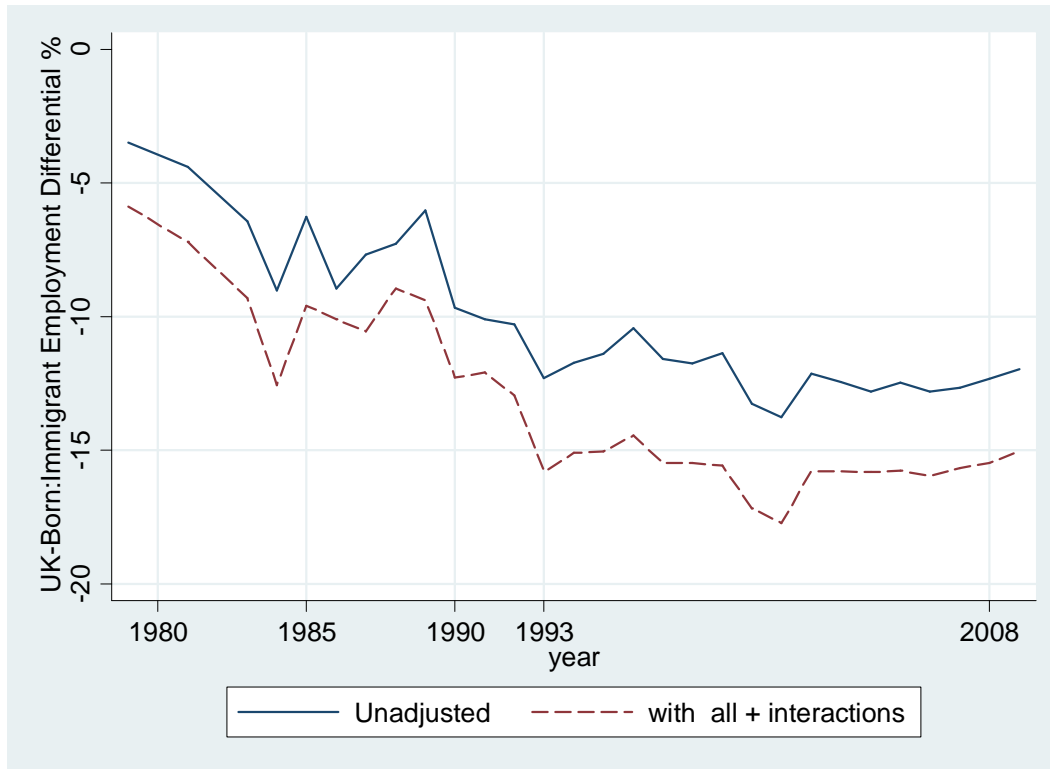
Female immigrants increasingly in areas with lower employment rates.



But educational gap in favour of immigrants has, as with men, risen over time

But when net this out the employment differential widens

## Combining age, education & region



Controls increase the gap.

## Summarise by Oaxaca Decomposition

$$\begin{aligned}\ln \bar{W}_I - \ln \bar{W}_N &= \bar{X}_I \hat{\beta}_I - \bar{X}_N \hat{\beta}_N \\ &= \bar{X}_I (\hat{\beta}_I - \hat{\beta}_N) + \hat{\beta}_N (\bar{X}_I - \bar{X}_N) & (1) \\ &= \bar{X}_N (\hat{\beta}_I - \hat{\beta}_N) + \hat{\beta}_I (\bar{X}_I - \bar{X}_N) & (2)\end{aligned}$$

The first term in the decompositions represents differences in rewards and the second differences in endowments.

If the first term - the differences in rewards - is negative, then it indicates that employers less willing to use immigrants than UK-born workers with same characteristics (discrimination or unobserved attributes).

Any fall in the contribution of this component could be taken as indicative of greater substitution over time

Standard errors for each of these components can be obtained easily.

## Oaxaca Decomposition of Employment Gaps

	1979	1989	1999	2009
Employment Rate				
<b><i>Immigrant men</i></b>				
% Gap	- 1.0	- 3.1	-7.1	+ 1.6
Explained	+1.9 (0.1)	+ 2.5 (0.2)	+ 3.6 (0.2)	+ 5.8 (0.3)
Unexplained	- 2.9 (0.5)	- 5.6 (0.7)	- 10.7 (0.8)	- 4.2 (0.7)
<b><i>Immigrant women</i></b>				
Gap	-3.1	-6.0	-11.4	- 12.0
Explained	+ 3.1 (0.2)	+ 3.4 (0.3)	+ 4.4 (0.3)	+ 3.6 (0.3)
Unexplained	- 6.2 (0.9)	- 9.4 (0.9)	- 15.7(0.9)	- 15.6 (0.8)

## Conclusion

Convergence in (male) employment rates over time looks to be driven by a combination of

- 1) an increase in characteristics associated with higher chance of being in employment for immigrants relative to UK-born men over time
- 2) fall in immigrant penalty for given characteristics (increased elasticity of substitution)

Little difference in relative performance of immigrant women over time because little change in composition and NO change in returns to given characteristics

*Which countries do immigrants come from?*

Table 1 shows the country of origin of the top five ‘sender’ countries in 2009 for the stock of existing immigrants and the flow of new immigrants. Many new immigrants – those who have been in the country for less than a year – are not primarily from the poorest countries, but from developed countries or wealthier emerging countries like South Africa.

The sender countries are much less concentrated than in the past. Twenty years ago, one third of all immigrants came from just two countries, Ireland and India. Now these two countries account for just 12% of all immigrants. The top three sender countries for the new arrivals to the UK in 2009 were Poland, India and Pakistan.

**Table 1: Country of origin of immigrants to the UK (percentage share in brackets)**

Largest senders	1985	2009
<b>All immigrants</b>		
1	Ireland (16.5%)	India (10.7%)
2	India (13.5%)	Poland (7.9%)
3	Pakistan (6.9%)	Pakistan (7.2%)
4	Jamaica (5.1%)	Germany (5.1%)
5	Germany (4.6%)	South Africa (3.4%)
<b>New immigrants (arrived in last year)</b>		
1	United States (20.6%)	India (11.4%)
2	Ireland (10.6%)	Poland (8.9%)
3	India (5.2%)	United States (5.6%)
4	Pakistan (4.1%)	South Africa (3.9%)
5	Germany (3.9%)	France (3.5%)

Source: Labour Force Survey

