

# Spatial Concentrations of Immigrants and their Impact on Employment opportunities in the UK labour Market

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# Introduction

- n The UK has experienced increasing levels of international migration in recent years.
- n Over the past 15 years migration into the country increased considerably, with most of the increase occurring after 1997. EU enlargement in 2004 led to the further increase: Citizens of the ten EU accession countries made up four fifths of the increase between 2003 and 2004.
- n Fears that an influx of cheap workers from Eastern and Central Europe would reduce the wages of native workers or push them out of jobs were expressed long before 2004. A study for the Department for Education and Employment on the possible labour market impact of Eastern European immigrants suggested overall losses to the native population from immigration by unskilled workers and overall gains if immigrants were skilled.
- n This paper presents up-to-date findings from the ESRC funded ongoing project "Understanding the Labour Market Impact of Immigration in the UK".

# Aims of this research

- n **The aim of this research** is to find out if variations across local labour markets in employment opportunities of individuals could be systematically related to the variations in the spatial concentration of immigrants, after accounting for variations in other characteristics of local labour markets. **A particular attention is paid to**
- n possible relationship between spatial concentration of immigrants and British born ethnic minorities and to the consideration if immigrant labour market impact is mediated by the ethnic composition of the local labour markets.
- n differences in the labour market impact between two different groups of immigrants – those who arrived in the UK before 2004 and those who came in 2004 and thereafter.
- n differences in immigration impact on various subpopulations in Britain – white British majority/ethnic or religious minorities; immigrants/British born; people with different level of educational qualification.

# Research Questions

- n Is there a relationship between the spatial concentration of immigrants and labour market outcomes of population?
- n To what extent can spatial variations in the outcomes of native workers be attributed to the differences between local labour markets in characteristics that describe the opportunity structure of local labour markets?
- n Whether the relationship between the spatial concentration of immigrants and labour market outcomes of population still exist if spatial differences in the local labour market opportunity structure are accounted for?
- n How does the immigration effect vary according the period of the immigrants' arrival in the UK?
- n How does the immigration effect vary for different sub-populations in the UK labour market?

- n Existing research evidence in Britain is insufficient in relation to the growing significance of this issue.
- n Since 1999 there has been only one academic paper of empirical research on impact of immigration (arrived before 2000) on employment and wages of native workers in the UK.
- n The skill level of recent Eastern and Central European immigration is very much different from the educational profile of previous immigration waves to the UK, therefore the labour market impact of the recent immigration can also be different and therefore deserves separate investigation.

# *Immigration labour market impact:*

## Theoretical approaches

- n Econometric approach: suggests that influx of the immigrant labour force in the labour market leads, therefore, to the violation of equilibrium in the labour market, which results in the wage fall of non-immigrant workers with comparable skills; immigrants also may displace native-born workers in whole occupations and industries forcing the latter outside the labour force (Friedberg, 2001; Borjas, 2003).
- n However, the size of the immigration effect reported in the most of the empirical studies is albeit negative but substantially smaller than it might be expected (cf. LaLonde and Topel, 1992; Altonji and Card, 1991; Borjas et al, 1992; Friedberg and Hunt, 1995; Cohen and Hsien, 2000; Dustmann, et.al, 2005; Friedberg, 2001; Cohen-Goldner and Paserman, 2005).
- n Sociological approach: based on the ethnic pluralism perspective and suggests that immigration impact is not one-directional but it is different for different ethnic groups of the veteran population. Therefore, for assessing the impact of immigration on the labour market it is important to recognize the multiethnic context of labour markets and to take into account of the number and size of ethnic groups among the non-immigrant population.

# Labour Market Opportunity Structure

- n Spatial differences in labour market opportunities is an important factor that may affects the labour market outcomes of workers across different labour markets.
- n Immigrants are not randomly distributed across the local labour markets in the host county, they are attracted to the labour markets of particular characteristics and those characteristics have impact both on the labour market outcomes of immigrant and non-immigrant population.
- n Control for differences in labour market conditions across local labour markets is particularly important when the immigrant spatial concentration and impact of those concentrations on the labour market outcomes of non-immigrant workers is considered.

# Sources of inequality in spatial distribution of labour market opportunities

Three factors that contributed to the development of spatial dimension of the labour market opportunities during the 1970s, 80s and 90s in the UK are

deindustrialization

technological development

labour market segmentation

The main reason for that is these three factors have a clear spatial character.

Local labour market conditions are usually described by: rates of employment; the degree of socio-economic inequality; job opportunities in low-skilled vs. high-skilled services and industries.

Therefore, in this study we account the spatial differences in the labour market conditions when consider the immigration labour market effect.

# Data Sources

- n The 2006 Annual Population Survey (APS) data set is used.
- n The size of the Annual Population Survey for 2006 is and 375,865 individuals. The 2006 APS provides enhanced annual data for the UK and covers the sample of at least 601 individuals for 201 Unitary Authority (UA)/Local Authority Districts (LAD) among which 180 are included in the present analyses.
- n The aggregate level characteristics at the level of unitary authorities /local areas are estimated from the 2006 weighed APS.

# Population and sample

- n The individual level units of analysis are individuals aged 16-65 (without self employed).
- n The units of analysis at the level of local labour markets are Unitary Authorities across Britain.
- n 21 localities were excluded from the final sample due to the very small numbers of ethnic minorities and the analyses was conducted on 180 (UA/LAD) .



# Independent variables

n Level of individuals:

1. **Comparison groups** -the UK born who describe themselves as White British; immigrants (those who were not born in the UK and did not describe themselves as White British); British born ethnic minorities (those who were born in the UK and did not describe themselves as White British).

2. **Religion** – Christians (reference group); Muslims; other religions.

n **Age**

n **Tenure in the UK for immigrants**

n **Gender** ( men the reference group);

## Independent variables: Level of individuals (continued):

- n Level of educational qualification (National Vocational Qualifications):
  - n no qualification (or unknown);
  - n below NVQ level2; N
  - n VQ Level2;
  - n NVQ Level3;
  - n NVQ level4 and level5.
- n Marital status: the reference group are single people;
  - n married (cohabitated)
  - n widowed, divorced; separated.
- n Control variables – (dummy variables), student status, disability status, pensioner, single parent family, number of children

# The Local labour markets level independent variables:

- n The size of immigrant population
- n The relative size of new immigrant population (the proportion of new immigrants among all immigrants the in locality).
- n The size of ethnic minority population
- n The size of employment
- n The size of the manufacturing sector
- n The size of the construction sectors
- n The size of banking and finance sector
- n The size of the personal and other services sector
- n Size of the unskilled jobs pool
- n The degree of the overall socio-economic well being of the locality

# Method:

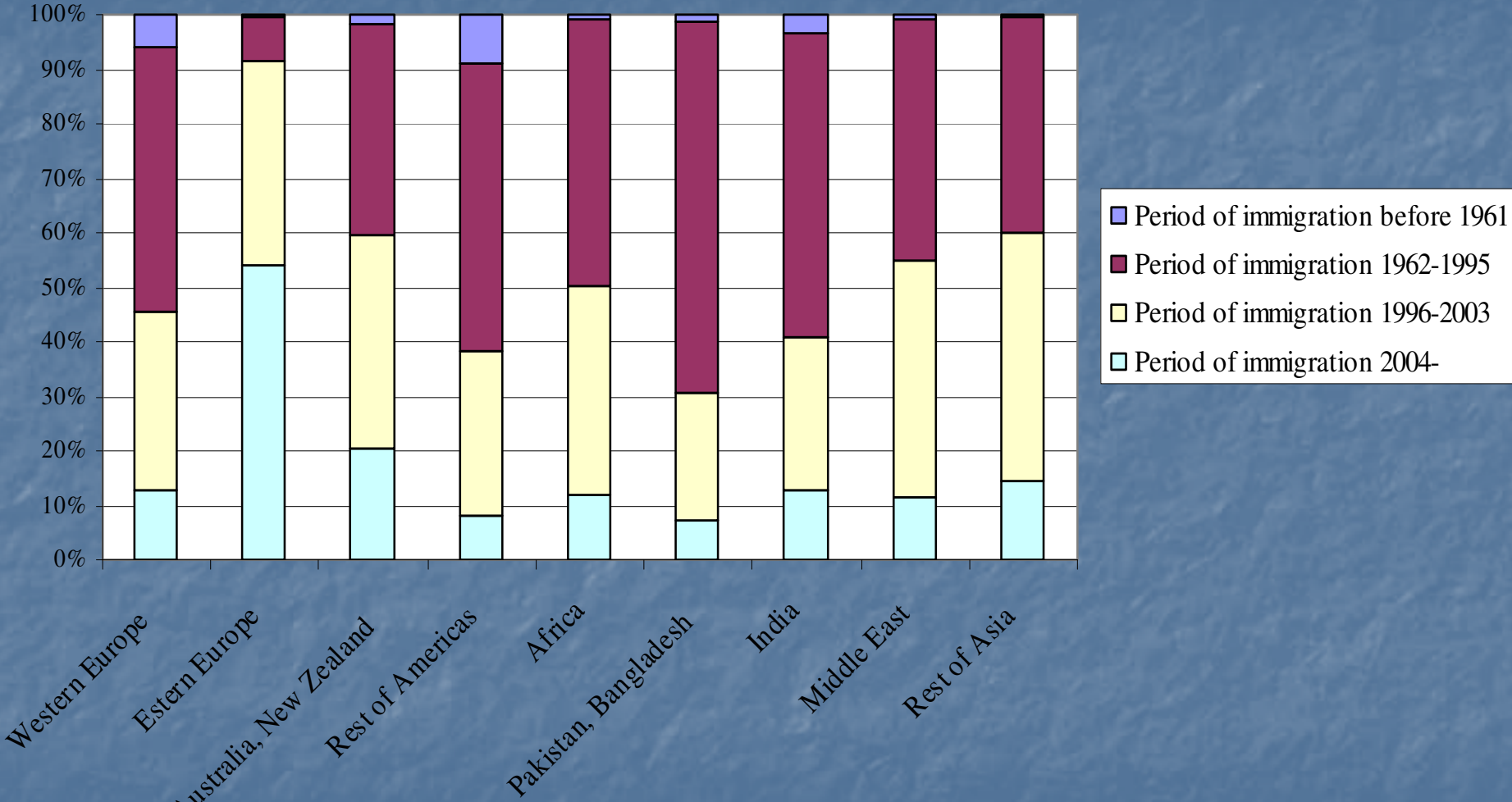
- n The research is completed through the multilevel analysis using the Hierarchical Linear Modelling (HLM) statistical package; at the level of individuals population aged 16-65 in Britain in 2006 is considered; at the level of local labour markets 180 unitary authorities in Britain are considered

n **Method (continued):**

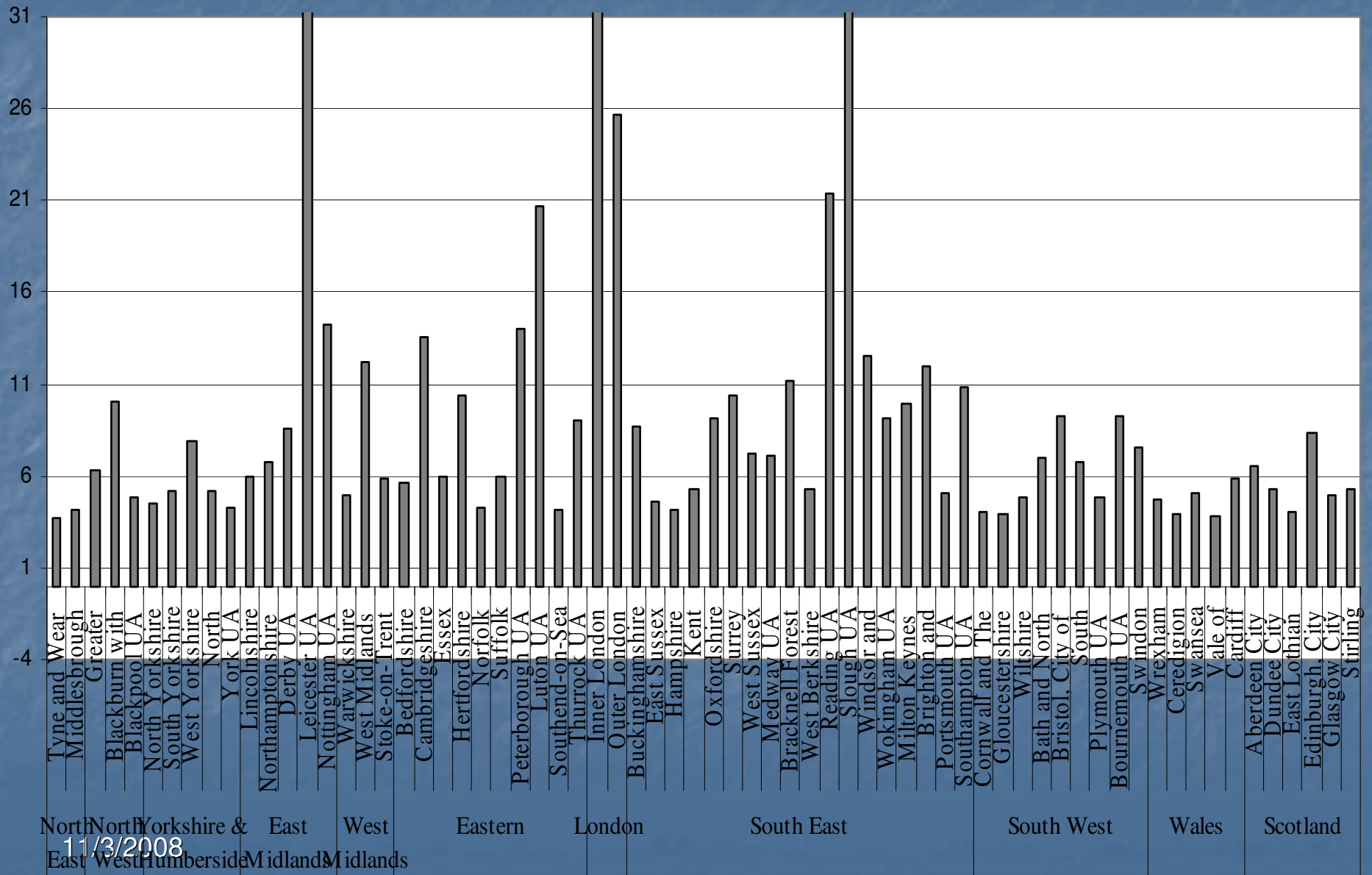
n We allow the effects of the following independent variables to vary across localities: level of educational qualifications, ethnic minority, Muslims, and immigrants. The aim is to test if the impact of the size of immigrant population in the locality on wages of workers vary by their level of education, minority status, religion, or immigrant status.

$$\text{Logit}(E_k)_{ij} = \left( \gamma_{00} + \sum_{j=1}^J \mu_{oj} + \sum_{j=1}^J \sum_{s=1}^{S_j} \gamma_{qkZ_{sj}} \right) + \sum_{j=1}^J \sum_{q=1}^Q \gamma_{q0} X_{qij} + \sum_{j=1}^J \sum_{q=1}^Q \mu_{qj} X_{qij} + \sum_{j=1}^J \sum_{q=1}^Q \sum_{s=1}^{S_j} \gamma_{qs} Z_{sj} X_{qij}$$

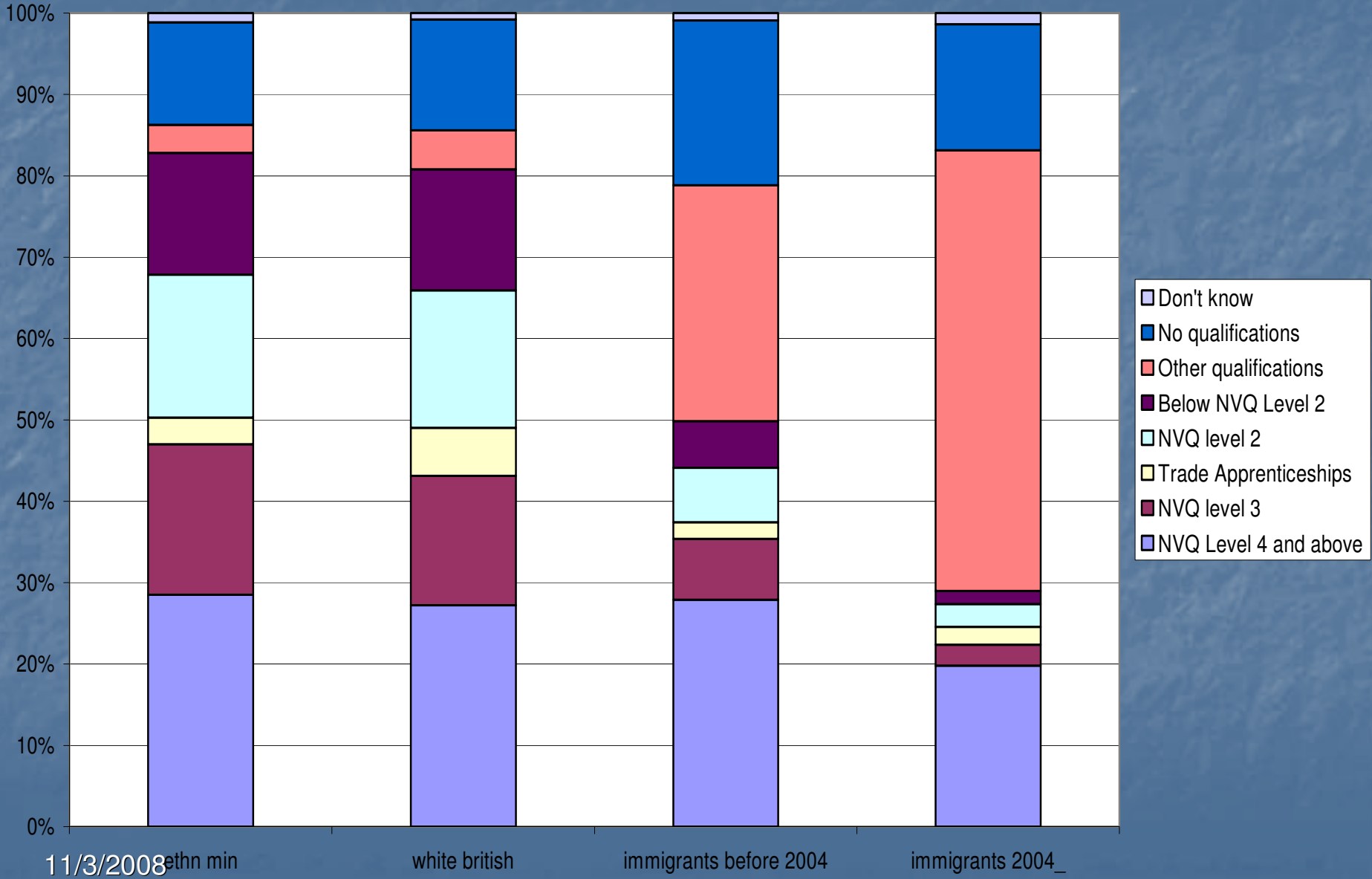
**Chart 1. Immigrants composition in Britain, by national/ethnic origin and period of immigration**



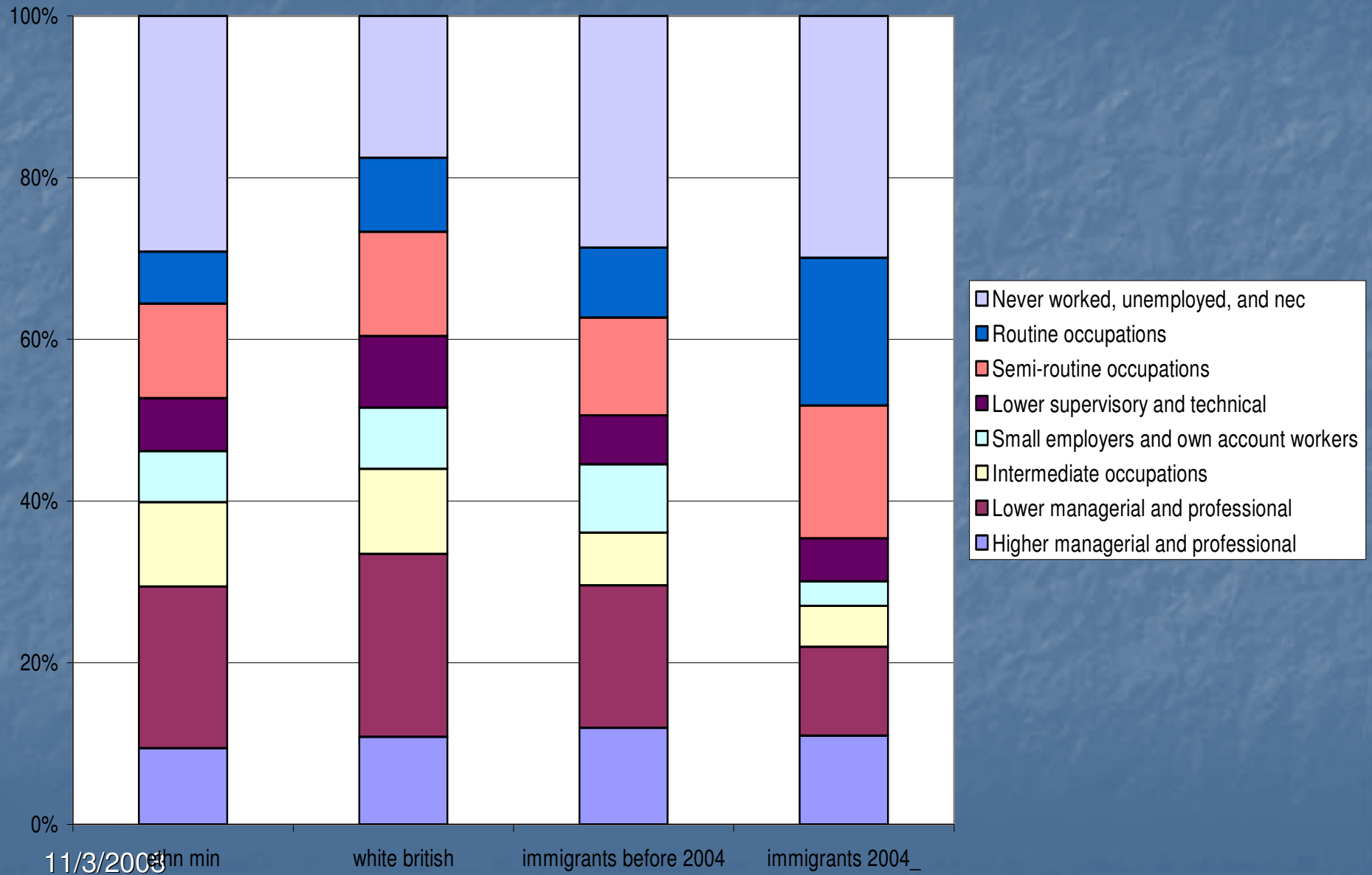
**Chart 2. Percentage of immigrants in localities by government office region - localities with a percentage of immigrants higher than median value**



**Chart 3. Level of highest educational qualification, by immigration and ethnicity status, UK population aged 16-64 in 2006**



**Chart 4. Socio-economic class by immigration and ethnicity status, UK population aged 16-64 in 2006**



11/3/2006

Chart 5. Destinations in the labour market of the UK population aged 16-64 in 2006

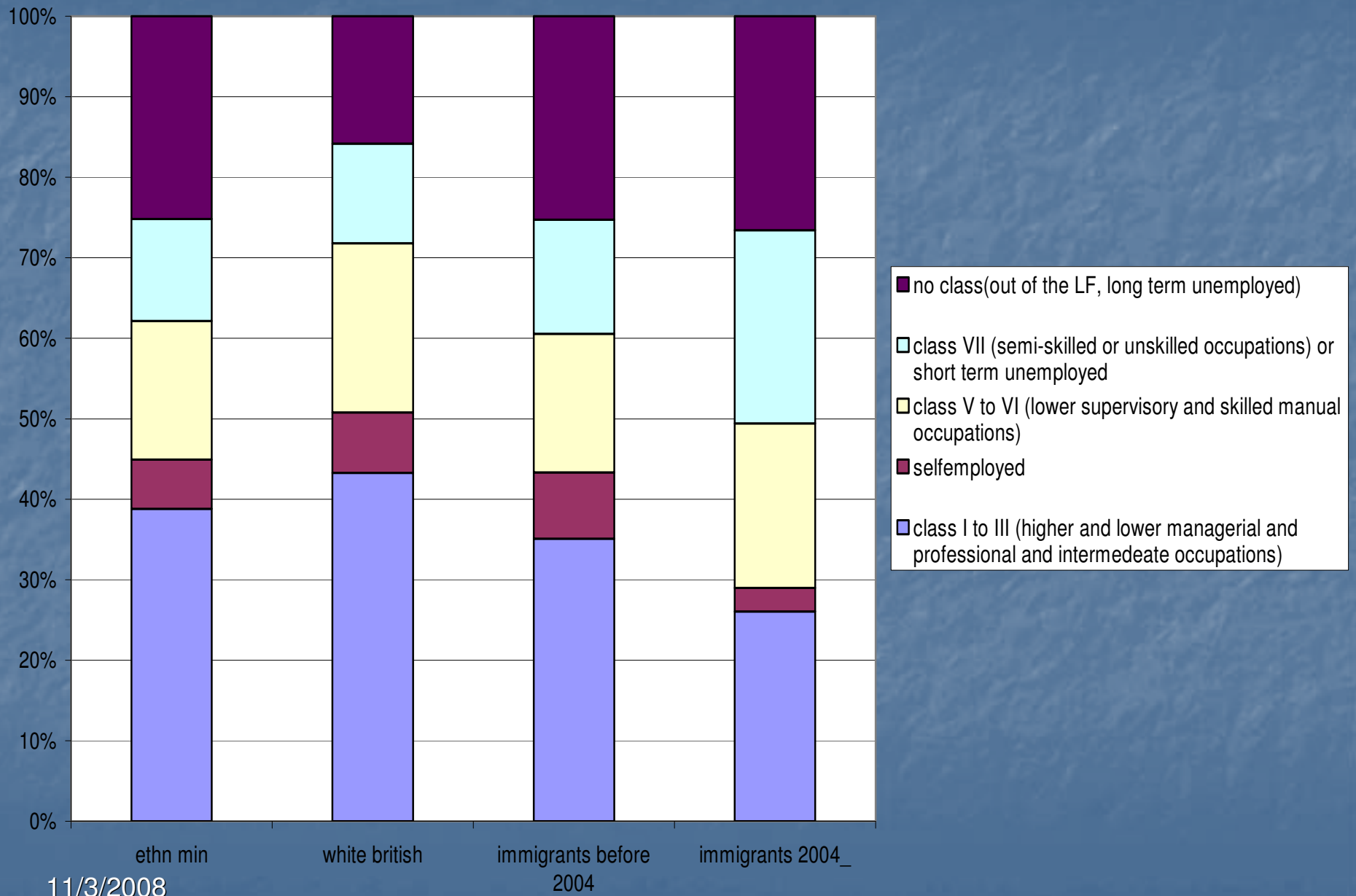
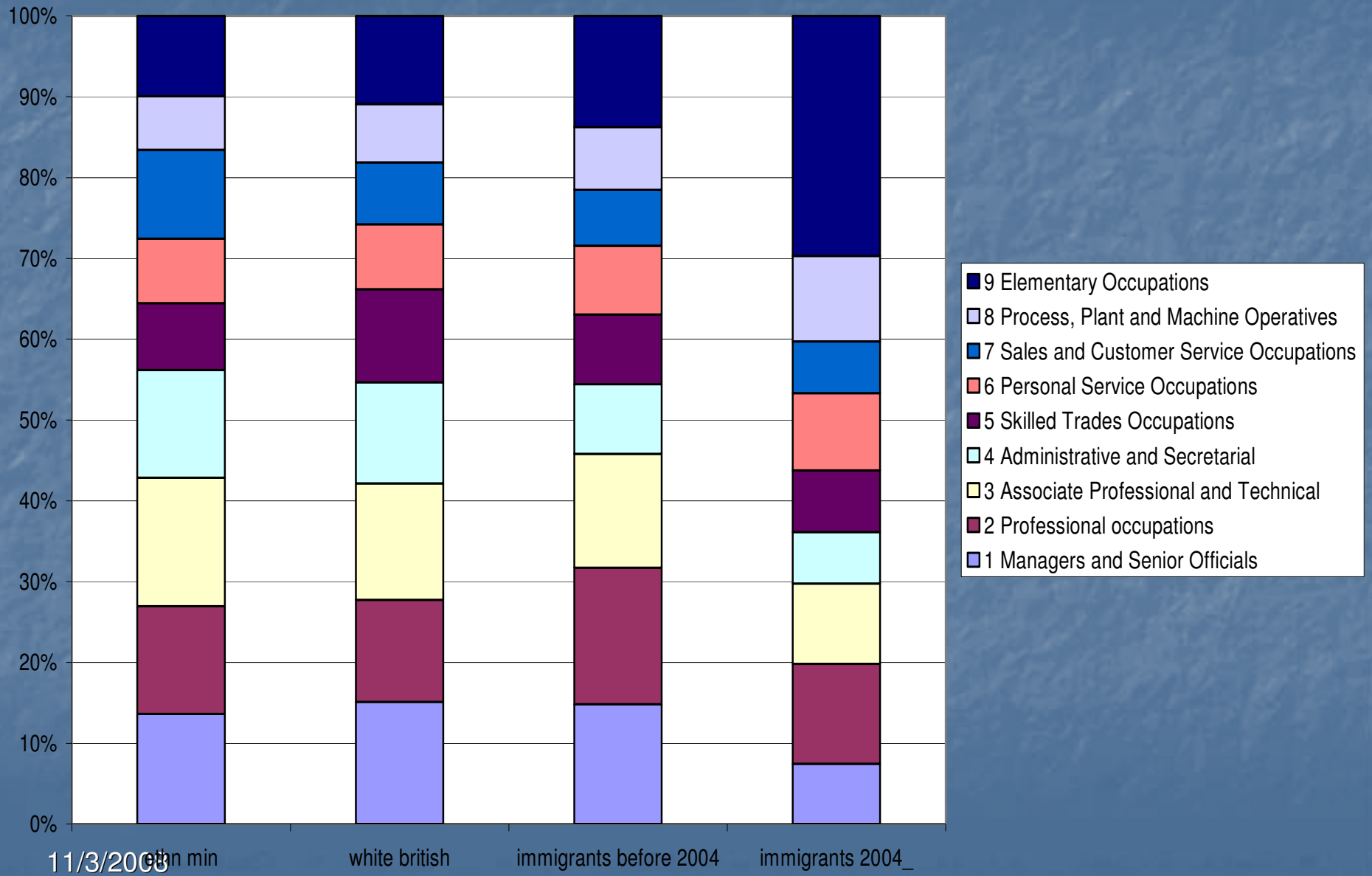
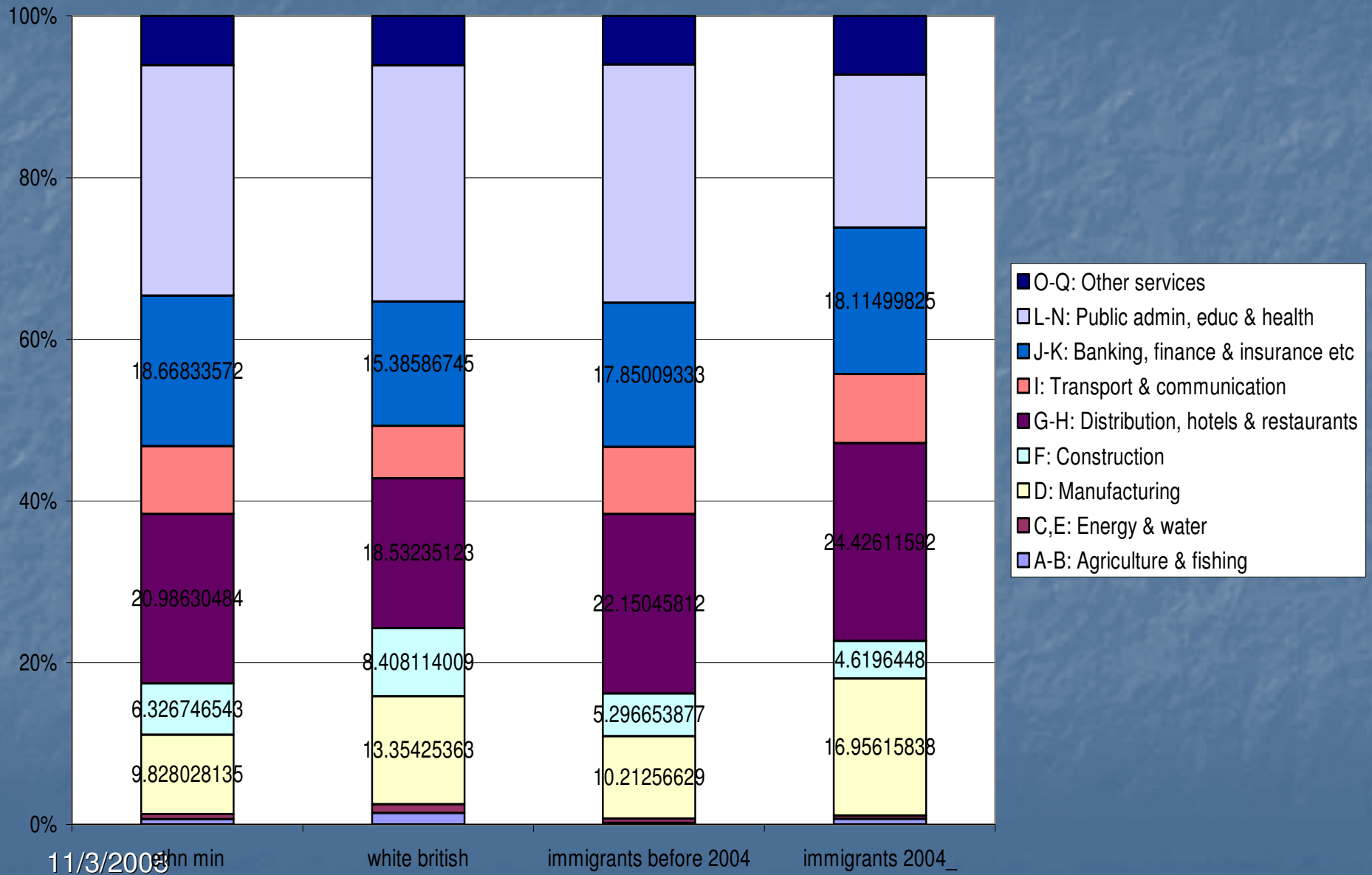


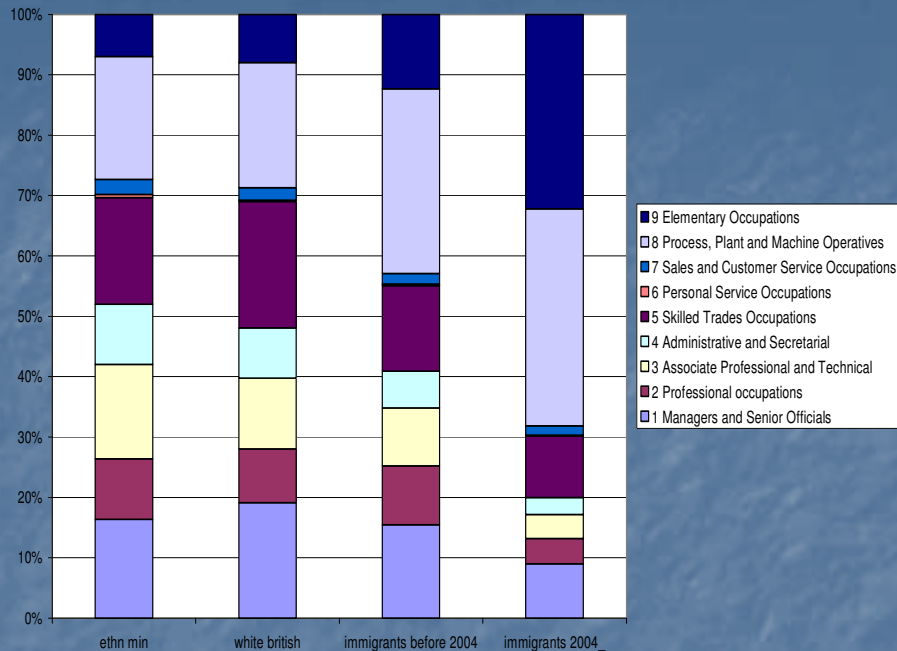
Chart 6. Occupational distribution by immigration and ethnicity status, UK population aged 16-64 in 2006



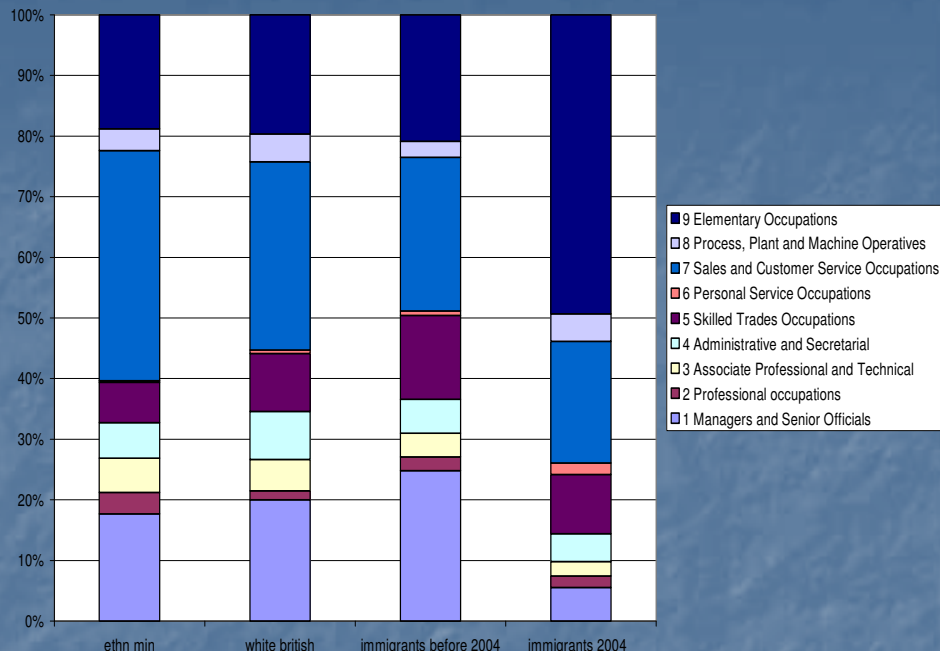
**Chart 7. Distribution of the UK population aged 16-64 by the main brunches of industry, immigrant and ethnicity status, in 2006**



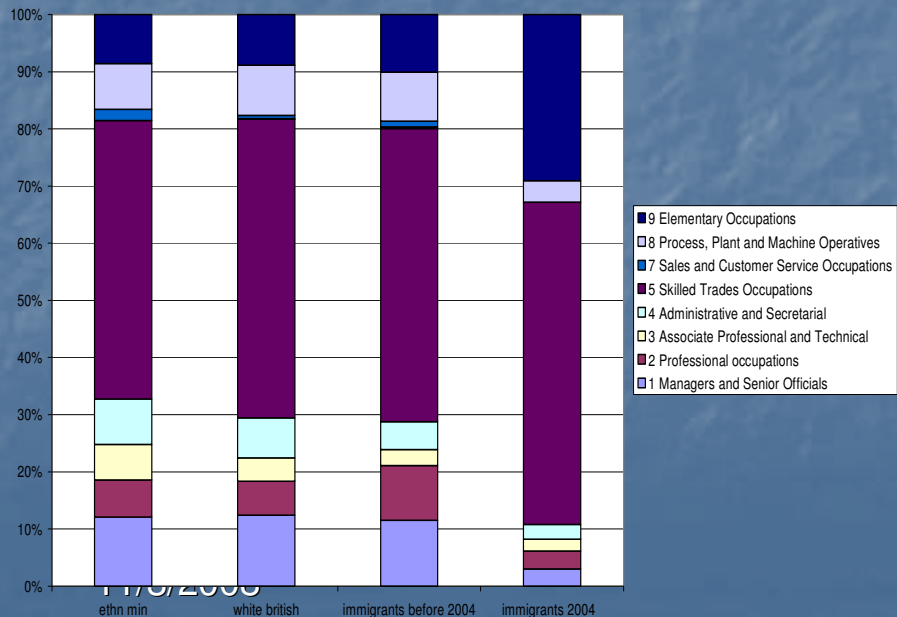
Occupational distribution of workers in industry sector: manufacturing



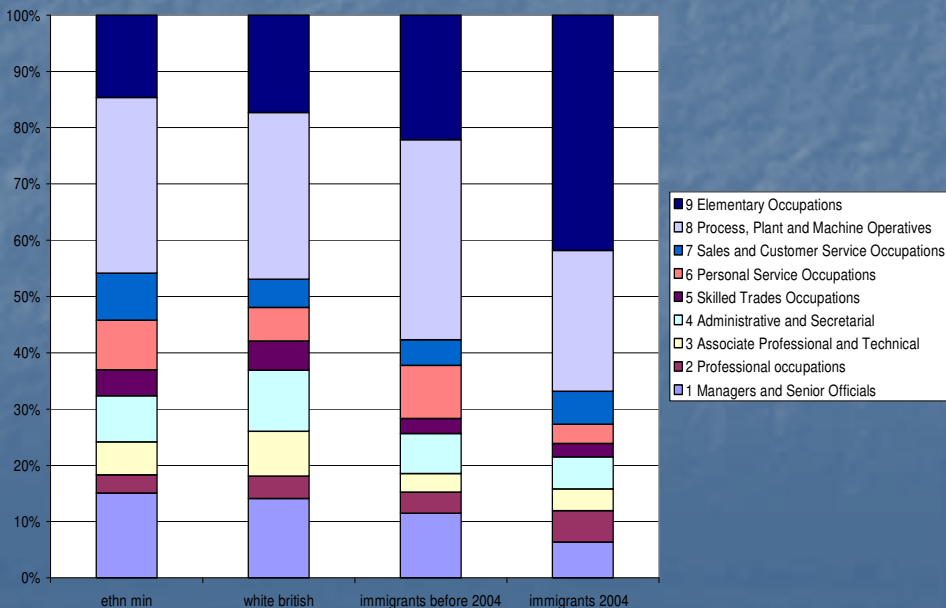
Occupational distribution of workers in industry sector : distribution, hotels and restaurants



Occupational distribution of workers in industry sector: construction



Occupational distribution of workers in industry sector: Transport and communication



## Estimated level 2 effects for random slopes and random intercept model :

probability of being economically inactive vs. probability of working in unskilled jobs

Level 2 variables.	Intercept	Immigrants	British Minorities	Below level 2	Muslims
Intercept	<b>.80(.02)**</b>	<b>.20(.10)*</b>	<b>.07(.07)</b>	<b>-.83(.04)**</b>	<b>1.26(.10)**</b>
Percentage of immigrants	<b>.01(.00)**</b>	<b>-.02(.00)**</b>			
Relative size of the new immigrant population					
Percentage of British minorities 11/3/2008			<b>-.03(.01)**</b>		

**Estimated effects level 2(continued):** probability of being economically inactive vs. probability of working in unskilled jobs

	Intercept	Immigrants	British Minorities	Below level 2	Muslims
Intercept	0.79 (.02)**	1.16 (.02)**		-.09 (.04)*	1.29 (.11)**
Percentage of immigrants	0.01 (.00)**				
Percentage of British minorities			-.026 (.00)**	-.011 (.05)*	
Percentage of employed				.06 (.01)**	
Percentage in manufacturing	-.013 (.00)**				
Percentage in construction	-.012 (.01)**				
Percentage with permanent jobs	-.02 (.01)**				
Unskilled jobs	-.04 (.01)**	-.05 (.02)**		-.03 (.01)**	.09 (.04)*
Percentage in class 1 11/3/2008				-.02 (.01)*	

**Probability of being in classes V and VI (skilled manual and lower supervisory occ.) vs probability of being in class VII (routine manual occ.)**

**Level 2 variables. contextual effects of immigration**

	Intercept	Immigrants	British Minorities	Below level 2	Muslims
Intercept	.71(.10)*			-.68(.03)**	
Percentage of immigrants		-.01(.00)*			
Relative size of the new immigrant population					
Percentage of British minorities					
11/3/2008					

## Estimated level 2 effects for random slopes and random intercept model : Probability of being in classes V and VI (skilled manual and lower supervisory occ.) vs probability of being in class VII (routine manual occ.)

### Level 2 variables. contextual effects of immigration and industries

	Intercept	Immigrants	British Minorities	Below level 2	Muslims
Intercept	.72(.01)**			-.65(.03)**	
Percentage of British minorities		.02(.01)*			
Percentage of employed	.04(.00)**				
Percentage in manufacturing		-.02(.01)*			
Percentage in construction		.04(.02)*			
Percentage in other services				.02(.01)*	
Unskilled jobs	-.02(.00)**	-.05(.02)*		-.02(.00)**	.08(.03)*
Percentage in class 1	-.01(.00)*				

**Estimated level 2 effects for random slopes and random intercept model :  
Probability of being in classes I to III (white collar occupations) vs  
probability of being in class VII (routine manual occ.)**

<b>Level 2 variables: Contextual effects of immigration</b>				
	Intercept	Immigrants	British Minorities	Below level 2
Intercept	1.97(.002)**	-.20(.09)*		-.52(.03)**
Percentage of immigrants	.014(.00)**	-.02(.00)**		-.005(.05)*
Relative size of the new immigrant population	-.01(.00)**	-.01(.00)**		-.002(.001)*
Percentage of British minorities			-.024(.08)**	-.010(.00)**

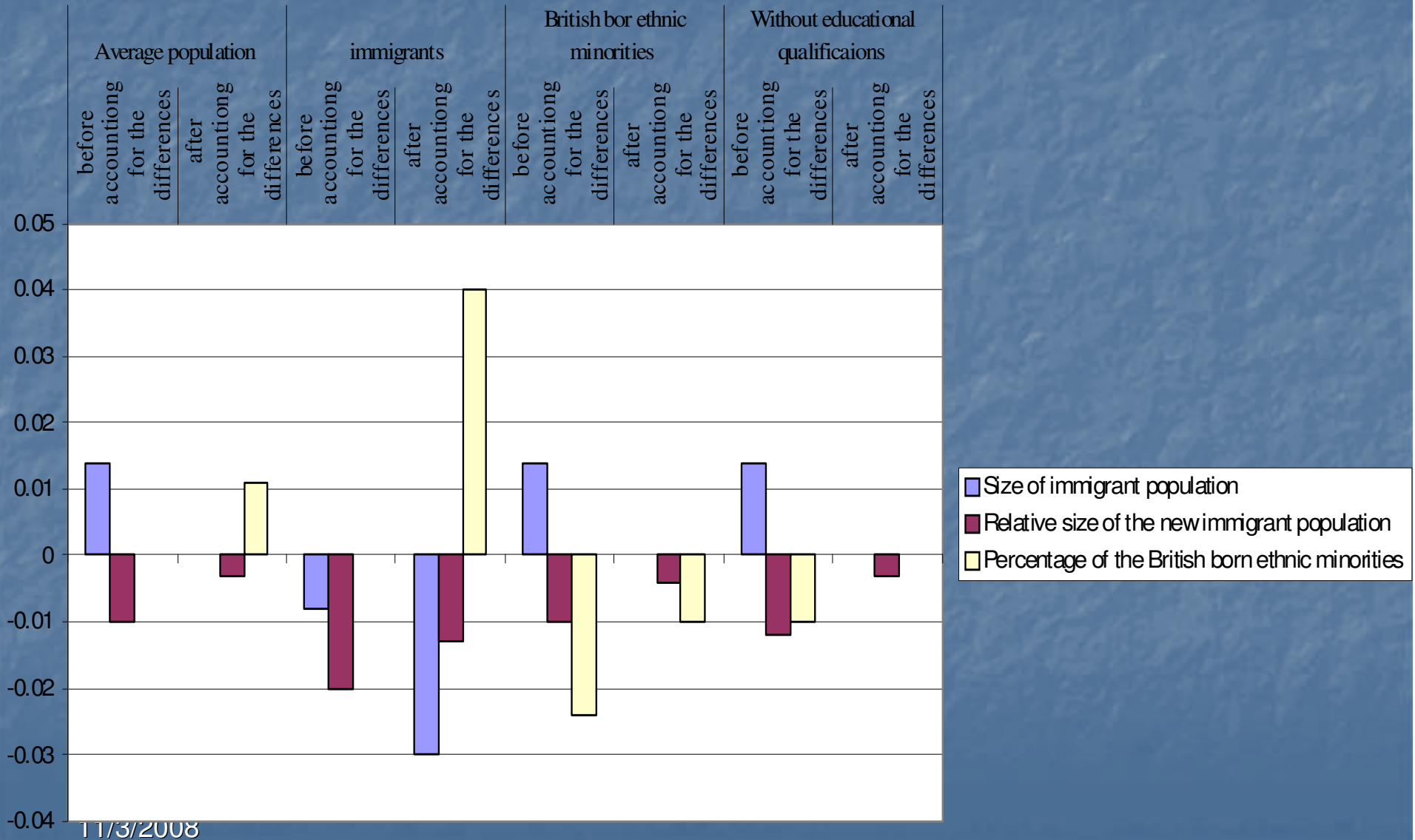
**Estimated level 2 effects for random slopes and random intercept model :  
Probability of being in classes I to III (lower and higher managerial and  
routine white collar occ.) vs probability of being in class VII (routine manual  
occ.)(continued)**

<b>Level 2 variables: Contextual effects of immigrants and industries</b>				
	Intercept	Immigrants	British Minorities	Below level 2
Intercept	1.99(.02)**	-.21(.08)*		-1.50(.03)
Percentage of immigrants		-.03(.01)**		
Relative size of the new immigrant population	-.003(.00)*	-.01(.00)**		
Percentage of British minorities	.011(.003)**	.03(.01)*	-.02(01)*	-.011(.00)**
Percentage of employed	.07(.01)**		.01(.00)*	.03(.01)**
Percentage in manufacturing			.03(.01)**	-.012(.00)**

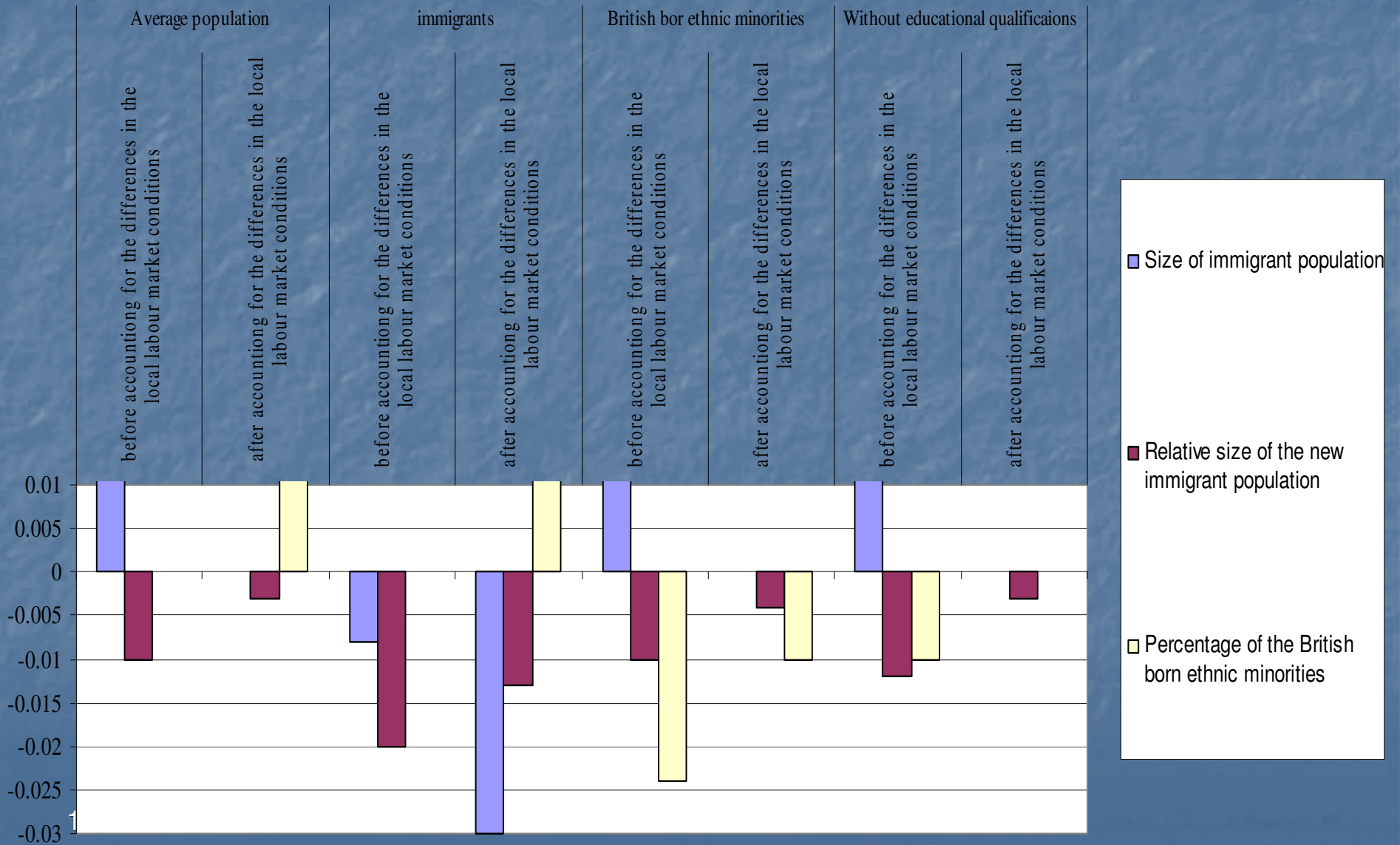
**Estimated level 2 effects for random slopes and random intercept model :  
 Probability of being in classes I to III (lower and higher managerial and  
 routine white collar occ.) vs probability of being in class VII (routine manual  
 occ.)(continued)**

Percentage with permanent jobs				<b>-.03(.01)*</b>
Percentage in banking and finance	<b>.03(.00)**</b>			
Percentage in personal services		<b>.08(.03)**</b>		
Percentage in other services		<b>.05(.02)*</b>		
Unskilled jobs			<b>.05(.02)*</b>	<b>-.06(.01)**</b>
Percentage in class 1 11/3/2008	<b>.03(.00)**</b>	<b>.04(.01)*</b>		<b>-.02(.01)*</b>

## Impact of the 1 % increase in the size of the immigrant population on the odds of working in white collar occupations vs the odds of unskilled jobs or short terms unemployment for different groups of the UK population



## Impact of the 1 % increase in the size of the immigrant population on the odds of economic inactivity vs the odds of unskilled jobs or short terms unemployment for different groups of the UK population



# Summary

- n In localities with larger population of immigrants, British born population has higher chances of being economically inactive rather than working in low skilled occupations or being short-term unemployed.
- n British born workers are less likely to work in white collar occupations in localities immigrants who arrived in the UK in 2004 or thereafter make a larger share of the whole immigrant population.
- n Immigrant spatial concentrations do not affect chances of non-immigrant population to work in higher status blue collar occupations.
- n Immigrant spatial concentrations have different effect on the labour market outcomes of British born and immigrants themselves.
- n Immigrants who live in localities with large immigrant populations (both old and new immigrants) are less likely to work in white collar occupations.
- n In localities with higher concentration of ethnic minorities White British population and immigrants are more likely to work in white collar occupation.
- n Ethnic minorities themselves as well as low skilled workers are less likely to work in white collar occupations in localities with a large presence of British born ethnic minorities.

# Conclusions

- n This study shows that such characteristics of people as their educations, demographic characteristics and ethnicity, together with the job opportunity structure in local labour markets are strongly related to the labour market outcomes of population, in terms of their odds of employment, higher status occupations and wages.
- n However, the findings clearly show that accounting for above characteristics can not fully explain spatial variations in the labour market outcomes of workers.
- n Remaining spatial variations in wages and other labour market outcomes are accounted well by variations in the size of immigrant population localities.

# Conclusions

- n Thus, overall immigration has a positive labour market impact in term of wages for all groups of non-immigrant population. However, there is also evident that immigrants are competing with non-immigrant workers for low skilled occupation, with the latter moving from unskilled jobs out of employment in the localities with large immigrant populations.
- n Overall, spatial concentrations of “new” immigrants are not related (in a statistically significant way) to labour market outcomes of non-immigrants population if the job opportunity structure of the local labour market is accounted for.
- n However, spatial concentrations of new immigrants do have negative labour market impact in the localities where new immigrants make a larger share of the whole population of immigrants, i.e. the localities where the size of immigrant population used to be quite small before 2004.
- n Indeed in such localities arrival of new immigrants since 2004 has negative effect labour market effect in respect of wages and opportunities of working in white-collar occupations for non-immigrant workers.

The latter finding might indicate that in the local labour markets where existed a relatively large immigrants populations before 2004, immigrants and non-immigrant worker established a balance, with each group occupying particular sectoral and occupational niches, therefore arrival of new immigrants since 2004 into such labour markers has not been violating this balance – presumably, the new immigrants entering the existing labour market niches for the immigrant workers.

However, in the local labour market where before 2004 there was no significant immigrant population, new arrivals entered the same labour market as the veteran incumbents and hence the latter are engages into the direct competition with the former and the labour market outcomes of the non-immigrants workers are negatively affected.