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Non-Technical Abstract

The main objective of this paper is to provide a comprehensive description of the economic outcomes and performance of Britain's immigrant communities today and over the last two decades. We distinguish between males and females and, where possible and meaningful, between immigrants of different origin. Our comparison group are white British born individuals. Our data source is the British Labour Force Survey (LFS). We first provide descriptive information on the composition of immigrants in Britain, and how this has changed over time, their socio-economic characteristics, their industry allocation, and their labour market outcomes. We then investigate various labour market performance indicators (labour force participation, employment, wages, and self-employment) for immigrants of different origin, and compare them to British-born whites of same age, origin, and other background characteristics. We find that over the last 20 years, Britain's immigrant population has changed in origin composition, and has dramatically improved in skill composition - not dissimilar from the trend in the British born population. We find substantial differences in economic outcomes between white and ethnic minority immigrants. Within these groups, immigrants of different origin differ considerably with respect to their education and age structure, their regional distribution, and sector choice. In general, white immigrants are more successful in Britain, although there are differences between groups of different origin. The investigation shows that immigrants from some ethnic minority groups, and in particular females, are particularly disadvantaged, with Pakistanis and Bangladeshis at the lower end of this scale.

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Immigrants in the British Labour Market[1]

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Abstract

The main objective of this paper is to provide a comprehensive description of the economic outcomes and performance of Britain's immigrant communities today and over the last two decades. We distinguish between males and females and, where possible and meaningful, between immigrants of different origin. Our comparison group are white British born individuals. Our data source is the British Labour Force Survey (LFS). We first provide descriptive information on the composition of immigrants in Britain, and how this has changed over time, their socio-economic characteristics, their industry allocation, and their labour market outcomes. We then investigate various labour market performance indicators (labour force participation, employment, wages, and self-employment) for immigrants of different origin, and compare them to British-born whites of same age, origin, and other background characteristics. We find that over the last 20 years, Britain's immigrant population has changed in origin composition, and has dramatically improved in skill composition - not dissimilar from the trend in the British born population. We find substantial differences in economic outcomes between white and ethnic minority immigrants. Within these groups, immigrants of different origin differ considerably with respect to their education and age structure, their regional distribution, and sector choice. In general, white immigrants are more successful in Britain, although there are differences between groups of different origin. The investigation shows that immigrants from some ethnic minority groups, and in particular females, are particularly disadvantaged, with Pakistanis and Bangladeshis at the lower end of this scale.

JEL: J15

Keywords: International Migration, Economic Performance

1 Introduction

According to the 2004 Labour Force Survey, 10 per cent of the British working age population is born in another country. Foreign-born individuals (to whom we will refer as "immigrants" or "migrants" below) differ from British-born individuals as well as among each other in education, demographic structure, culture, and skills. These differences may partly determine economic success as well as social adaptation and integration. One important prerequisite for migration policy is to understand how immigrants perform in the labour market, and how this relates to origin, as well as their individual and family characteristics.

The main objective of this paper is to inform about the economic performance of Britain's immigrant communities. We use the British Labour Force Survey (LFS) for the years 1979-2004. Our analysis adds to the literature and the debate on migration by providing a comprehensive picture of many different aspects of labour market performance and behaviour of immigrants in Britain today and over the last 25 years. We break the immigrant population down by (groups of) origin countries to illustrate the heterogeneity in economic outcomes. Our analysis is not restricted to ethnic minority immigrants, but considers also white immigrants of different origin. Also, we do not restrict our investigation to male immigrants, but consider both females and males.

We define an immigrant as an individual who is born outside Britain. We investigate four different performance indicators: (i) Labour force participation, (ii) employment, (iii) wages, and (iv) self-employment. Our comparison group are white British born individuals. Where possible and meaningful, we distinguish between immigrants of different origin. In particular, we distinguish between ethnic minority and white immigrants. Within the first group we further distinguish between black Caribbeans, black Africans, Indians, Pakistanis, Bangladeshis, African Asians, Chinese and other ethnic minorities. The second group consists of white individuals and we distinguish between individuals born in the Old Commonwealth (including South Africa), the New Commonwealth (including Pakistan), China, Ireland, the European Union (as of before the 2004 enlargement), other European countries (i.e. Eastern

Europe, Turkey, Switzerland, and Norway) and other countries. [1]

Our analysis distinguishes between males and females. To investigate the relationship between economic outcomes and individual characteristics, like education, age, and time of residence, we use regression analysis. Our analysis is purely descriptive, in the sense that we do not attempt to address issues like selective labour force participation. When we compare wages of female immigrants with those of British-born individuals, for example, we do not account for the possibility that females who work are selected from the overall population of females on characteristics other than education, age, years of residence, and other observable demographic indicators. Thus, our analysis answers questions about differences in wages between British-born white females, and female immigrants *who are working*, but not between British-born white females, and female immigrants, who are randomly drawn from the respective populations. To answer the latter question requires an analysis which is beyond the scope of this paper.

When immigrants arrive in the destination country, their labour market productivity is likely to be different from that of British-born individuals. This may be due to differences in the level of education, socio-economic characteristics, and demographic composition, or fluency in the host country language. But even when comparing immigrants with British-born individuals who are identical in observed characteristics, there may still be differences in labour market outcomes. One reason is that the skills immigrants have acquired in their home country are usually not directly transferable to the host economy. Over time, immigrants may adjust their skills to requirements of the host country labour market and, in addition, acquire new skills. This may eventually lead to immigrants' economic performance becoming more similar to that of their British-born peers.

Differences in demographics, education, or skills may not be the only reason why immigrants differ in their labour market outcomes from British-born individuals. Upon arrival, and when given the choice, they may settle in areas that are economically strong. Consequently, when comparing immigrants with British-born individuals, selective settlement may lead to more favourable labour market outcomes of immigrants than of British-born individ-

[1] See Appendix for details on geographical distribution and list of variables used in the analysis.

uals. We present results on economic outcomes of the different immigrant groups relative to native born individuals conditional and unconditional on observable characteristics and regional information.

We commence with a brief review of the previous literature for Britain, and a description of our main data source. We then provide descriptive information on the composition of immigrants in Britain, and how this has changed over time, their socio-economic characteristics, and their labour market outcomes. Next we investigate the various labour market performance indicators for immigrants of different origin, and compare them to British-born whites (section 4) of same age, origin, and other background characteristics. Finally, in section 5 we conclude.

2 Previous literature and data

Previous literature

There is an extensive literature on immigrants' labour market performance. Chiswick's (1978) paper, which investigates the earnings assimilation of immigrants to earnings of natives over the migration cycle, was seminal to this literature. Many subsequent papers have been published in this area, and in particular the work by Borjas has added some very important methodological and conceptual advances (see Borjas (1985), Borjas (1987), Borjas (1994), and Borjas (1999)). The earnings assimilation of immigrants has not only been investigated for the US, but also for many other countries like Canada, Australia, Germany, and Israel. [2] Not only earnings or wages of immigrants have been investigated in the literature, but also employment, labour force participation, and self employment. More recently, researchers have investigated the assimilation patterns of family of immigrants for Canada (Baker and Benjamin (1997)), the US (Blau et al. (2003)), Australia (Meng and Gregory (2005)), and Britain (Dustmann and Fabbri (2005)).

[2] See, among others, Antecol et al. (2003), Green and Green (1995), Dustmann (1993), Eckstein and Weiss (2004), and Zimmermann and Bauer (2002).

Below we briefly survey the recent literature on British data.

Employment and Participation: The early literature in Britain on employment and participation differentials compares outcomes of whites with those of ethnic minorities. Distinctions between immigrant and British-born minorities have rarely been drawn, but more recent work shows that this distinction is crucial.

Based on the 1991 UK Census of population, Blackaby et al. (1997) investigate the incidence of unemployment. They find that the foreign-born ethnic minorities have a higher unemployment rate than British-born minorities. They find no evidence that the latter perform worse than white British-born individuals. Blackaby et al. (1997) also find substantial differences between different ethnic groups. Their results suggest that Pakistanis and Bangladeshis have particularly low employment probabilities. Wheatley Price (2001) uses Quarterly LFS data for the years 1993 and 1994. He finds that white and non-white immigrants have initially a lower probability of being employed, compared to white British-born individuals. While this disadvantage decreases over time for white immigrants, it does not disappear for non-white immigrants. In an analysis of ethnic minority immigrants and ethnic minority British-born individuals, and based on data from the Fourth National Survey on Ethnic Minorities (FNSEM) and the Family and Working Life Survey (FWLS), Dustmann and Fabbri (2003) find that minority immigrants have lower employment probabilities compared to white British-born individuals and minority British-born individuals. This disadvantage falls slightly over time. They also find differences between ethnic groups. They confirm the findings by Blackaby et al. for Pakistani and Bangladeshi immigrants.[3]

Wages: The first study on the earnings adaptation of immigrants in Britain is by Chiswick (1980), who analyses the 1972 GHS. He finds that there is no significant earnings gap between white immigrants and white British-born individuals, but a 25 percent gap between white British-born individuals and non-white immigrants. Chiswick finds no evidence for adaptation of non-white immigrants. He also finds no wage gap between white and non-white British-born individuals.

[3]See also Leslie and Lindley (2001) and Clark and Drinkwater (2005).

More recently, Bell (1997) has performed a more exhaustive analysis, pooling 20 consecutive cross-sections of the GHS (1973 to 1992). He distinguishes between West Indian, Indian and white and Old Commonwealth immigrants. He finds different adaptation rates and entry wage differentials across these groups. While ethnic minority immigrants have an initial wage disadvantage that slowly decreases, white immigrants have initially higher wages, but adapt downwards. Bell attributes this negative adaptation to the possibility that white migrants who remain in Britain are negatively selected. Denny et al. (1997), using also GHS data (from 1974 to 1993), find similar results. In particular, they find a large wage differential between non-white immigrants and white British-born individuals, but no wage gap between white British-born individuals and white immigrants. Dustmann and Fabbri (2003) analyse minority immigrants, based on data from the FNSEM and the FWLS. Their findings confirm results of earlier studies, indicating that minority immigrants earn substantially lower wages at entry than white British-born individuals. This initial gap decreases slightly, but does not close.

Finally, in a very recent report, Kyambi (2005) provides a thorough descriptive analysis on the changes in the economic performance of "new" immigrants (i.e., those arrived in Britain after 1990) between 1994 and 2004. Kyambi (2005) finds that "new" immigrants are less likely to be employed than older immigrants. Furthermore, her findings provide further evidence that earnings vary widely depending on the country of origin.

Self-Employment: Work on self-employment of immigrants is scarce. For the US, Borjas (1986) analyses self-employment probabilities for immigrants and British-born individuals. Borjas and Bronars (1989) extend this analysis, looking at self-employment probability differentials among different ethnic groups. For the UK, there are only two papers which study self-employment probabilities, and only for ethnic minorities. Clark and Drinkwater (1998) use the General Household Survey (GHS) and the FNSEM (Clark and Drinkwater (2000)). They find that ethnic minority immigrants are more likely to be self-employed than ethnic minority British-born individuals. They also find that ethnic concentration affects self-employment rates negatively - which contrasts with findings by Borjas (1986).

The data

Our data base is the British Labour Force Survey (LFS) for the years 1979-2004. The LFS is a continuous household survey, which provides a wide range of data on labour market statistics and related topics such as training, qualifications, income and disability. The LFS has been running since Spring 1992 in its present form although a LFS has been carried out in Britain since 1973. Between 1973 and 1983 a biennial survey was carried out during the Spring. In 1984 the survey became annual. In Spring 1992, for the first time, the data were made available quarterly, with a quarterly sample size approximately equivalent to that of the previous annual data, thus becoming the Quarterly Labour Force Survey. Each quarter interviews are achieved at about 59,000 addresses with about 138,000 respondents.

A core of questions covering household, family structure, basic housing information and demographic details of individuals in the households is included in every survey, together with non-core questions which vary from quarter to quarter.

3 Immigrants in Britain

Composition and arrival

Figure 3.1 outlines historical pattern of immigration into Britain for the population of foreign born in 2004, using data taken from the 2004 Labour Force Survey. We focus on the population of working age (men aged 16-64 and women aged 16-59). The figure shows that a large fraction of working age immigrants in 2004 are recent arrivals. Around 8 per cent of all immigrants arrived within the last year, and around 40 per cent arrived within the last ten years.

Figure 3.2 charts the year of arrival of immigrant groups in 2004 from different origin countries. Notice that these figures illustrate the historical immigration pattern of immigrants who are resident in Britain in 2004, not the pattern of inflows, due to mortality and return migration. Figures are however likely to be shaped by historical immigration events (see Hatton and Wheatley Price (2002) for background information)

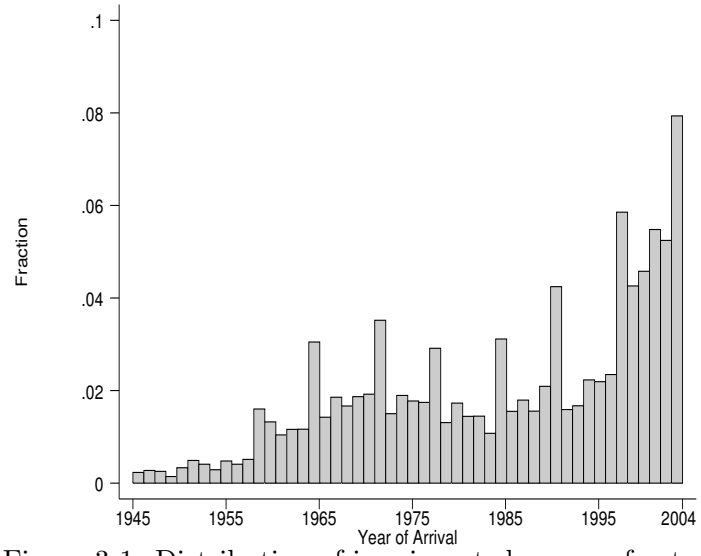

Figure 3.1: Distribution of immigrants by year of entry

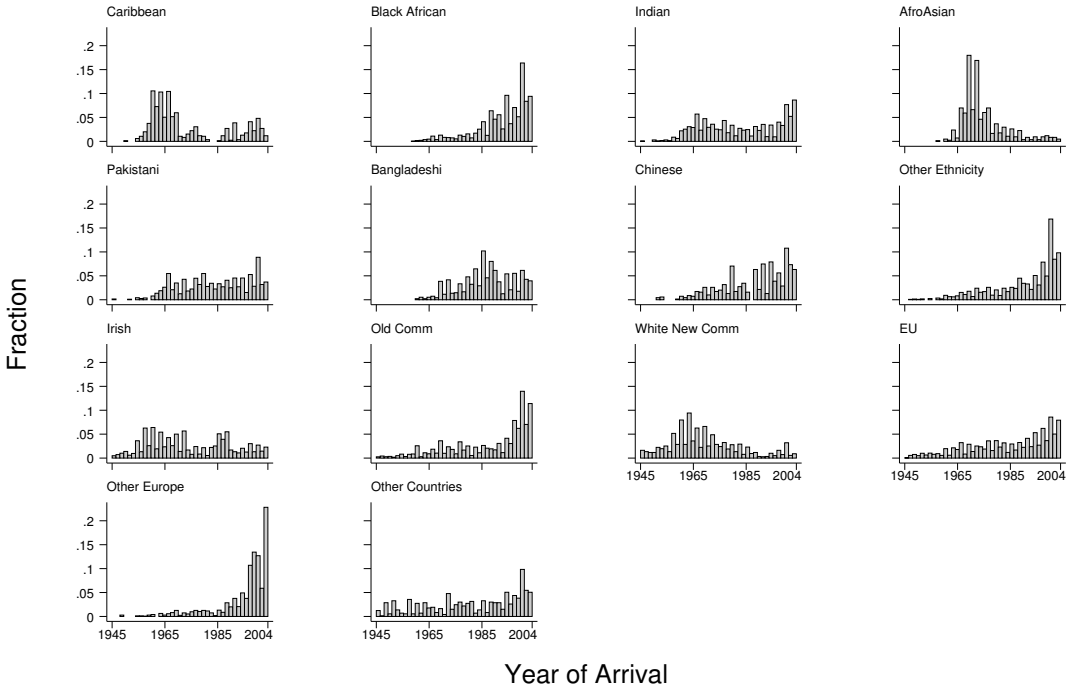

Figure 3.2: Year of arrival by origin status

Of those immigrants resident in 2004, individuals from the Caribbean, Ireland and white individuals born in New Commonwealth (NC) countries started to arrive immediately after the war. Those who came in the 1960s and 1970s were mainly arrivals of Asian origin born in Africa (African-Asians) [4]. Most of the resident Bangladeshi immigrant community arrived in the 1980s. Many immigrants from the European Union (before enlargement) and the Old Commonwealth (OC) countries (including the USA) arrived in the 1980's.

One immigrant group of interest are immigrants coming from non-EU (before the 2004 enlargement) Europe. This group includes immigrants from Israel, Albania, Bulgaria, former Czechoslovakia, Hungary, Poland, Romania, Switzerland, Norway, former Yugoslavia, Turkey, former USSR, and other European countries (not specified in the LFS).[5] This aggregation is somehow arbitrary, but it is necessary due to the small number of respondents coming from the listed countries. However, when possible and meaningful, we will distinguish between individuals coming from "new accession" countries and Romania and Bulgaria (which are candidate countries for EU accession) and individuals coming from other non-EU countries.

The most recent arrivals are black Africans, individuals of other ethnicities (which are not specified in the LFS) and individuals from non-EU (before enlargement) Europe. Polish immigrants (who represent 25 per cent of this sub-sample) make up for most arrivals in 2003 and 2004.

Characteristics of immigrants and British-born individuals

In Table 3.1, we highlight some simple stylised facts about the various minority groups in Britain. The numbers are taken from the 1983 and 2004 Labour Force Surveys (LFS), and refer to the population of working age (year of arrival and education data are only available, in full, from 1983 onward).

[4]This large number of African-Asians was due to the expulsion of British passport holders from East and Central Africa in the early 1970's.

[5]The LFS identifies countries which belonged to the former USSR and former Yugoslavia individually only after 1998.

Table 3.1: Immigrants and British-born whites in Britain (population of working age)

	Year	British-born white	Immigrants	West Indian	African	Indian	Afroasian	Pakistani	Bangladeshi	Chinese	Other non-white	Irish	Old Comm.	New Comm.	EU	Non-EU	Other white
% of pop.	1983	92	7.6	0.7	0.1	0.4	1	0.5	0.1	0.2	0.02	1.4	0.3	1.1	0.9	0.4	0.8
	2004	87	10.5	0.3	0.8	0.9	0.3	0.7	0.4	0.3	1.2	0.6	1.1	0.7	1.4	0.7	0.3
Med. Age	1983	37	38	42	35	35	30	34	33	33	25	44	35	35	41	54	36
	2004	40	38	47	36	42	45	38	34	39	35	48	35	43	35	31	40
Med. ysm	1983	–	19	22	15	15	11	10	14	10	4	26	18	24	22	35	13
	2004	–	15	37	9	20	32	19	17	12	8	31	8	37	14	5	18
Med. entry age	2004	–	22	15	27	27	16	21	20	21	25	19	25	6	22	25	23
% < age16	2004	–	27	50	9	21	48	29	33	15	15	31	26	75	33	6	35
% grad.(men)	1983	10	14	4	18	16	7	16	11	19	25	4	38	21	15	12	25
	2004	18	23	15	26	24	28	15	7	40	21	19	29	32	24	12	38
% No quals.	1983	45	49	65	13	46	68	32	81	56	31	71	21	30	42	57	29
	2004	13	17	20	10	22	15	34	41	15	17	26	4	9	10	23	7
% grad.(fem)	1983	4	8	1	6	10	4	8	2	9	14	3	15	12	10	15	20
	2004	16	18	14	15	16	16	6	3	25	18	18	25	28	23	14	26
% No quals.	1983	51	50	51	57	42	42	65	75	90	54	48	60	18	32	44	44
	2004	15	20	14	18	31	17	48	60	18	19	23	5	11	12	17	12
% in London	1983	10	36	59	66	43	17	53	52	34	22	34	29	34	28	28	23
	2004	8	45	64	64	42	57	26	63	44	53	33	38	28	36	57	43
% marry same	1983	99.7	96	86	70	94	96	95	99	88	100	99	99	99	99	99	99
	2004	99	86	66	81	90	84	92	91	67	53	95	98	97	94	96	96

Notes: All figures population weighted. Married includes cohabitees and is conditional on being married

In the first two columns of the table, we report figures for British-born whites and individuals who are foreign-born. The next columns split the foreign-born into groups of various origins.

In 1983, around 8 per cent of the working-age population were born outside Britain. The largest immigrant community at that time were those of Irish origin, some 1.4 per cent of the working-age population, or around 0.6 million individuals. Next came members of the Afro-Asian community (1 per cent) and white individuals born in New Commonwealth countries (1.1) [6].

By 2004, the total immigrant stock rose to around 10.5 per cent of the working age population. The largest immigrant group are now individuals born in the European Union (excluding Ireland), at around 1.4 per cent of the population. The shares of immigrants from sub-Saharan Africa, India, Pakistan, Bangladesh, non-EU European countries[7], and Old Commonwealth countries all grew over this period, whilst the shares of Caribbean, Irish, African-Asian, and whites from New Commonwealth countries fell. Notice that the change in the composition of the immigrant population of working age may not only be due to immigration and demographic developments, but also to (differential) return migration.

Between 1983 and 2004 the median age of the immigrant population has remained constant at 38, whereas that of British -born whites has increased from 37 to 40.

We report in the table the median years since migration for the total immigrant population, and distinguish between different origin groups, for the years 1983 and 2004. The average immigrant had already spent around 19 years in Britain in 1983 and around 15 years by 2004. This average conceals some large differences across the various groups, reflecting the history and geographic pattern of immigration into Britain over the past 50 years. Members of the West Indian community and whites from New Commonwealth countries have been in

[6] New Commonwealth countries include India, Africa, West Indies, Pakistan, and Bangladesh, and we distinguish between white and non-white immigrants from these countries.

[7] Inside this group, Polish immigrants represent the largest portion (25 per cent), followed by immigrants from former USSR countries (18 per cent), immigrants from former Yugoslavia (16 per cent), and Turkey (11 per cent).

Britain the longest, around 37 years on average in 2004. They are followed by the African-Asian and Irish communities, with 32 and 31 years of residence in 2004 respectively. The most recent immigrants, on average, come from Poland.

We report in the next panel the age at which immigrants enter Britain. The numbers show that the median age of arrival of the working-age population residing in Britain in 2004 is 22. Again, there is large variation across the various immigrant groups that we identify. Looking at the distribution of age at entry, we find that 80 per cent of immigrants resident in the year 2004 came to Britain before the age of 30. Furthermore, around one third of all immigrants arrive as children (LFS 2004), defined as individuals who arrived before the age of 16. Again there is considerable heterogeneity across the different groups. Nearly half of all Caribbeans and three quarters of whites from New Commonwealth countries arrived as children, compared with 9 and 6 per cent of immigrants from black Africa and non-EU Europe. With the exception of the group of whites born elsewhere, the fraction of child immigrants has risen over time, presumably, in part, because the families of original immigrants become eligible for settlement.

The historical pattern of immigration shapes the relative numbers of British-born across the various ethnic minorities. Figure 3.3 graphs the distribution of the various immigrant communities by age for the year 2004. Since the West Indian community and whites from New Commonealth countries have been in Britain the longest, their age distribution is skewed to the right, with correspondingly fewer arrivals now in their teens or twenties. In contrast, the age profiles of African, Bangladeshi and non-EU European immigrants are skewed to the left, with much higher concentrations of individuals in the younger age range, reflecting their more recent entry into Britain.

Table 3.1 also outlines the different levels of educational attainment between immigrants and white British-born individuals, and across immigrant groups. It is apparent that the immigrant community as a whole is generally more educated than British-born whites. Among males, in 1983, only 10 percent of British-born whites had graduated, while this is the case for 14 percent of the immigrant population. By 2004, the percentage of graduates in the British-born white population had increased to 18 percent, and to 23 percent in the immigrant

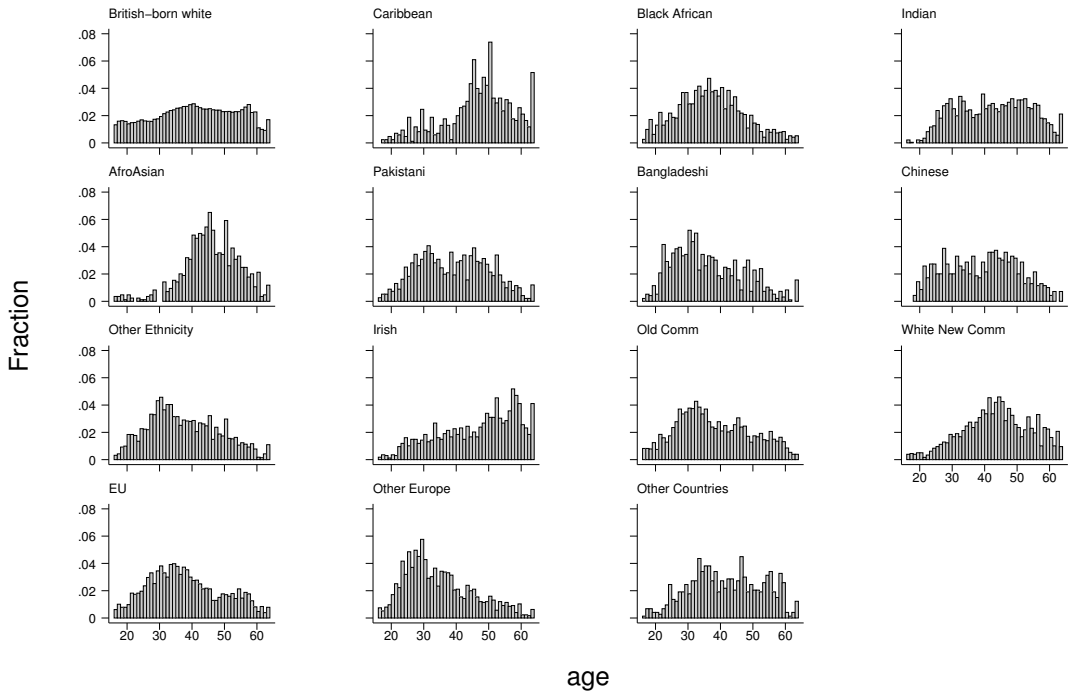

Figure 3.3: Distribution of immigrants by age

population. At the lower end of the education distribution, the relative numbers are quite similar: 45 percent of the British-born white, and 49 per cent of the foreign-born population had no educational qualification in 1983; these numbers have dramatically decreased for both populations, to 13 and 17 percent respectively. This indicates a significant improvement in the lower end of the skill distribution of immigrants to Britain.

When we break down numbers on educational attainment for male immigrants according to the various origin groups, we see that there have been significant improvements for nearly all groups at the lower end of the skill distribution. On the other hand, there are large differences in the percentages of graduates, according to country of birth. For instance, only 4 (15) percent of individuals from the West Indies had graduated in 1983 (2004), whereas 16 (24) percent of immigrants from India had a degree.

Several immigrant groups have many more graduates than British-born whites and a correspondingly lower share of those with no qualifications. In 2004, 32 percent of whites from New Commonwealth countries living in Britain had a degree, compared to 18 per cent of

British-born whites. In contrast, the West Indian, Pakistani, non-EU Europeans and particularly, the Bangladeshi communities contained fewer graduates than the national average and many more individuals with no formal qualifications. Among non-EU Europeans, low levels of education can be found mostly among immigrants from Eastern European countries and Turkey. In 2004, 41 per cent of all Bangladeshis had no formal qualifications, compared to 13 per cent of British-born whites and 10 per cent of those in the black African group. The share of women in the Bangladeshi and Pakistani communities with no qualifications is more than twice the national average. For females, the differences across years and origin groups are similar, but the levels are generally lower.

Another interesting feature revealed by Table 3.1 is the stark concentration of immigrants in the capital. In 2004, London contained around 13 per cent of the total population, but more than 40% of all immigrants. Comparing 2004 to 1983, the concentration of immigrants in the capital appears to have increased.

As employment prospects and particularly wage levels vary between London and elsewhere, this regional concentration of immigrants has to be taken into account in the analysis of wage and employment differentials. We address this issue in later sections.

The bottom two rows of Table 3.1 highlight the proportion of each group who have married within the same ethnic group. Around 14 per cent of immigrants have married outside their ethnic group. Amongst immigrants, marriage or cohabitation with someone from outside the ethnic group is quite common amongst members of the West Indian and Chinese communities and less so in the Pakistani and Bangladeshi communities.

Participation and employment

We next examine differences in labour force participation and employment between British-born whites and the foreign-born. We distinguish between foreign-born whites and foreign-born non-whites. We exclude students to remove any effects of increased participation in tertiary education. We define the participation rate as the ratio of economically active individuals over the total population. Economically active individuals include individuals

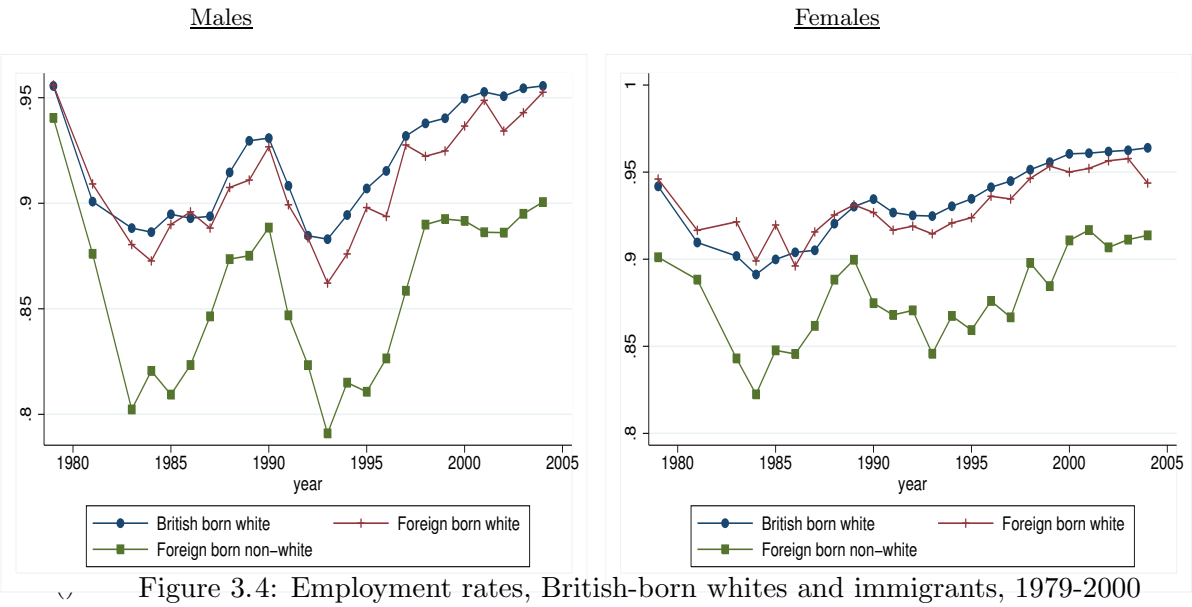

Figure 3.4: Employment rates, British-born whites and immigrants, 1979-2000

currently unemployed, but seeking for a job. We define the employment rate as the ratio of individuals working over individuals participating. Accordingly, the unemployment rate equals one minus the employment rate. The inactivity rate is one minus the participation rate. Our results are reported in Figures 3.4 (employment rates) and 3.5 (participation rates).

As Figure 3.4 shows, non-white immigrants have, on average, a dramatically lower employment rate than British-born white individuals. Foreign-born whites are very similar to the British-born whites. Differences are more accentuated for males than for females. For males, the employment gap does not appear to be present in the late 1970s, when information on immigrants in the LFS was first collected.

Over time, through two major economic recessions and subsequent recoveries, employment rates for non-white immigrants have displayed more volatility than those of British-born whites or white immigrants. In bad times employment rates of non-white male immigrants fall further, but recovery is also faster. This is true for both males and females. This pattern is quite remarkable, and suggests that ethnic minority immigrants loose employment faster than British-born whites, but do also re-enter employment faster in an upward trend.

In Figure 3.5, we show participation rates for males and females, using the same grouping as for employment rates. Male participation rates are falling over the entire period considered,

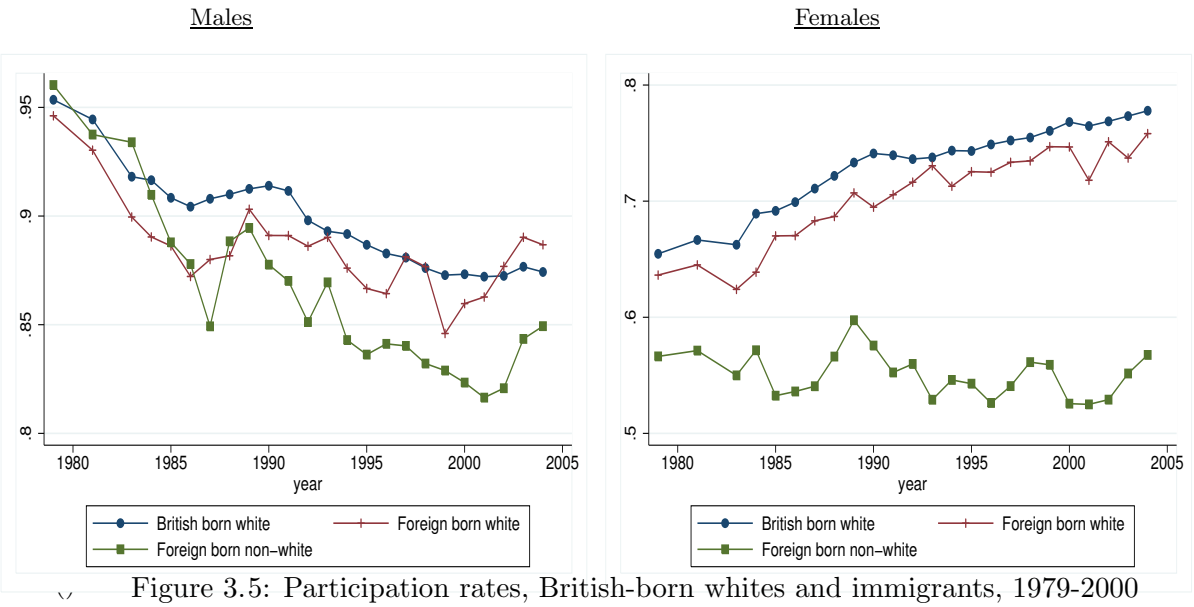

Figure 3.5: Participation rates, British-born whites and immigrants, 1979-2000

but have fallen most amongst non-white immigrants. Especially in the 1990's participation rates of non-white immigrants fell more sharply than those of white immigrants, and of British-born whites. Notice, however, that participation of white and non-white immigrants has recovered in the past five years. Amongst women, non-white immigrants have much lower participation rates than whites. Moreover, non-white immigrants do not, on average, appear to have contributed to the large rise in female participation over the last 25 years. These averages may be shaped by the changing composition of the immigrant population over time. As we show in the next table, these averages also conceal large differences across different groups.

In Table 3.2, we report employment and participation figures for different ethnic groups which constitute the non-white population. Employment and participation rates among some communities, particularly Africans, Bangladeshis and Pakistanis, are lower than among others.

This difference between the Pakistani and Bangladeshi communities on the one side, and white British-born individuals and other communities, on the other, is most dramatic for females. Less than one in four females participate in the labour market in most years. Furthermore, of those who do participate, Pakistanis and Bangladeshis have the lowest employment

Table 3.2: Employment and participation rates of British-born whites and immigrants 1979-2004

	British-born white	West Indian	African	Indian	African-Asian	Pakistani	Bangladeshi	Chinese	Other
Men									
	Employment								
1979	96	95	90	96	92	91	100	100	94
1992	89	77	69	86	92	75	64	94	82
2004	95	90	86	96	94	90	86	94	89
	Participation								
1979	95	96	98	96	97	98	93	100	95
1992	90	81	88	84	95	77	83	91	88
2004	87	81	90	86	90	80	85	92	82
Women									
	Employment								
1979	94	91	88	91	90	68	67	98	91
1992	92	89	73	88	88	75	49	90	86
2004	96	89	88	93	96	79	88	93	89
	Participation								
1979	65	78	74	54	66	15	24	53	50
1992	74	72	70	64	71	17	15	60	65
2004	78	83	64	62	69	23	18	72	58

Source: LFS. Excludes those in full-time education. All figures use population weights.

rates.

Sector allocation and origin

What can explain the large variation in participation and employment rates, as well as the greater susceptibility to the economic cycle, amongst the non-white immigrant community? If certain groups were younger, had fewer qualifications, or were resident in areas where labour demand was weak, then this could help explain these differences. For example, since minority groups tend to be younger this means that a higher share of these groups will be in the age range 16-24, an age group that is historically vulnerable to unemployment. Differential levels of educational attainment will also affect the chances of being in work. We investigate these issues in more detail in the next section, where we condition on individual characteristics, thereby adjusting for differences in socio-economic characteristics between the various immigrant groups and white individuals.

We first provide some descriptive information on immigrants' economic activity in Britain. We consider occupational status of immigrants, and compare it to that of British-born whites. Again, we look at these features at two points in time: 1979 and 2004. We report some summary statistics for males and females in Tables 3.3 and 3.4. We first discuss results for males.

The first two rows of Table 3.3 outline the share of employed individuals in each group who are classified as self-employed. There are, on average, more immigrant males working in self-employment relative to British-born whites. Again, splitting up these averages across ethnic groups shows considerable variation in self-employment rates, with larger concentrations of self-employed among the Indian, African-Asian, Pakistani, Chinese, Irish and other European communities.

Part-time work seems to be more widespread in the immigrant community, but again the patterns differ widely according to origin. A very high proportion of male immigrant employees from the African, Pakistani, Chinese, and especially Bangladeshi communities work part-time.

Table 3.3: Employment patterns of immigrants and British-born whites in Britain - men (population of working age)

	Year	British-born white	Immigrants	West Indian	African	Indian	African-Asian	Pakistani	Bangladeshi	Chinese	Other Non-White	Irish	Old Comm.	W New Comm.	EU	Other Eur	Other white
self-emp	1979	9	10	3	2	11	9	10	12	27	10	9	9	15	16	9	11
	2004	16	17	16	6	18	22	28	11	21	13	25	16	17	14	29	16
part-time	1979	.5	1	.5	1	.2	.4	1	2	2	2	1	1	1	2	1	N/a
	2004	8	11	9	16	11	4	14	29	17	14	5	9	8	8	9	11
temp.	2004	5	9	9	13	13	2	5	15	6	12	4	11	3	7	15	5
	1979																
manufact.		40	44	52	41	55	71	44	65	13	30	36	29	32	47	60	30
constructn.		9	8	8	3	4	1	1	N/a	1	3	23	5	6	4	7	4
transport		9	0	15	15	13	11	10	6	3	7	10	12	9	6	7	4
retail		8	4	4	9	8	4	19	9	6	6	5	9	10	7	3	7
hotel/rest.		.5	4	1	5	2	1	1	12	50	6	1	2	5	14	2	3
finance		4	3	1	3	1	3	6	N/a	N/a	6	2	4	5	2	1	4
education		4	3	1	3	1	2	1	N/a	3	5	2	12	5	3	5	6
health		2	4	2	5	5	2	4	6	5	12	2	5	4	3	2	1
	2004																
manufact.		22	16	22	7	21	15	27	9	8	16	14	11	18	18	16	15
constructn.		10	5	7	2	4	7	1	1	1	1	19	6	4	4	14	5
transport		10	10	18	14	10	16	13	5	10	8	14	7	10	9	10	8
retail		15	13	13	16	10	24	17	15	7	13	9	11	10	12	15	6
hotel/rest.		3	10	4	5	9	N/a	9	57	25	10	5	4	4	11	13	12
finance		15	20	12	21	20	19	16	6	19	23	13	29	22	23	15	29
education		5	6	7	7	3	4	3	1	8	5	6	8	6	7	6	10
health		4	9	9	18	15	5	5	1	11	12	7	6	7	6	3	7
public		12	9	6	9	6	6	7	5	9	9	10	14	17	9	5	7

Notes: All figures population weighted. Excludes those in full-time education. Figures on industry sector are percentage of all employees in each origin category. Part-time workers are all employees

Table 3.4: Employment patterns of immigrants and UK-born whites in Britain - women (population of working age)

	Year	UK-born white	UK-born non-white	Immigrants	West Indian	African	Indian	African-Asian	Pakistani	Bangladeshi	Chinese	Other Non-White	Irish	Old Comm.	W New Comm.	EU	Other Eur	Other white
self-emp	1979	2	1	2	1	N/a	3	2	N/a	N/a	6	2	1	2	3	3	2	2
	2004	6	3	9	3	2	7	17	5	11	11	7	5	11	9	10	18	15
part-time	1979	39	15	33	27	28	16	20	22	N/a	23	31	51	28	30	36	38	27
	2004	40	32	26	21	22	22	32	16	10	30	22	33	26	34	34	29	34
temp.	2004	6	10	11	6	16	9	5	9	11	15	11	3	14	10	12	16	8
	1979																	
manufact.		25	28	30	33	26	58	45	54	50	10	22	24	10	24	27	11	16
retail		17	19	10	7	5	5	N/a	18	25	7	12	10	8	9	13	12	12
hotel/rest.		5	4	6	2	4	1	N/a	N/a	25	42	4	4	3	7	7	3	3
finance		6	3	4	3	1	2	N/a	6	N/a	7	8	3	9	6	5	3	10
education		14	6	10	5	6	2	4	N/a	N/a	2	7	14	18	9	15	10	14
health		9	5	18	32	40	12	4	9	N/a	15	22	19	22	13	13	6	7
	2004																	
manufact.		8	4	7	2	3	16	10	8	10	2	7	7	6	5	9	7	7
retail		17	20	13	6	13	16	21	17	17	9	12	9	11	8	5	5	7
hotel/rest.		5	4	6	3	8	4	1	4	10	28	6	5	3	2	7	12	6
finance		14	19	17	13	10	14	17	9	19	20	14	15	24	17	20	20	18
education		15	11	14	15	4	13	9	23	23	9	11	19	17	19	16	10	17
health		20	19	24	41	47	20	18	21	12	17	34	29	16	25	12	14	15
public		13	15	11	18	7	11	19	15	8	11	8	11	13	15	9	9	7

Notes: All figures population weighted. Excludes those in full-time education. Figures on industry sector are percentage of all employees in each origin category. Part-time workers are all employees

Temporary working amongst employees appears highest among workers from Bangladesh and Europe outside the European Union. This in part, may be explained by working visa restrictions for citizens of the countries from the latter group.

The next two panels investigate sector allocation of foreign-born and British-born employees (i.e., conditional on being employed) [8]. Between 1979 and 2004 there is a remarkable increase of foreign-born individuals in the finance sector, in the health sector and in the retail and hotel/restaurant sectors.

The allocation to sectors differs quite substantially across origin groups. In 2004, more than half of all Bangladeshi men in employment work in the hotel and restaurant sector, compared with just 3 per cent of British-born whites. A large percentage of individuals from the Old Commonwealth work in the finance sector. Fifteen per cent of the Indian population, and 18 per cent of male immigrants from Africa work in the health sector, compared to only 4 per cent of the British-born white population. As Table 3.4 illustrates, the percentage differences are even larger for females. For 2004, we also report the fraction of individuals working in the public sector. This is fairly equal between the three groups we consider here.

In Table 3.4 we report results for females. Interesting is the large concentration of some groups in the health and education sectors. Again, and as for males, there is quite a lot of variation across origin groups. Remarkable is the strong concentration of females from some origin groups in the health sector. Nearly one in two women of African origin works in this sector, compared to one in five of British born white women. There is a similarly high concentration for females from the West Indies.

Like for males, female immigrants from India, Pakistan, Bangladesh, or of African-Asian descent were heavily concentrated in the manufacturing sector in 1979, but their concentrations have dropped considerably more in these sectors in 2004 than those of British born whites. Instead, there is a relative increase in sectors like health and finance.

Overall, the sectoral allocation of Britain's immigrants differs considerably by origin, with particular groups being very concentrated in some sectors. Furthermore, over the last

[8] Sector allocation of the self-employed is investigated below in table 4.1

two decades the sector allocation has changed substantially, with a movement away from manufacturing, and into finance and health, in particular for females.

4 Economic performance of British-born and foreign-born individuals

We have illustrated in the previous section that rates of employment, unemployment and economic activity differ substantially between foreign-born and British-born individuals. We have also demonstrated large differences with respect to some key characteristics, and even larger differences in individual characteristics, as well as economic outcomes, across groups of different origin. Some of the difference in economic performance between British-born whites and the different groups of foreign-born may be explained by differences in individual characteristics. In this chapter, we address this issue.

We analyse how different immigrant groups differ from British-born whites, and how these differences change when we compare individuals with the same set of observable characteristics. We use regression analysis to control for differences in observable variables, like age, education, or region of settlement.

The first two performance indicators we analyse are employment and labour force participation. We then investigate the differences in self-employment probabilities between the different immigrant groups, and British-born individuals. Finally, we look at wages. In our analysis, we shall distinguish between males and females. Furthermore, as mentioned above, we will focus the discussion on differentials between the various immigrant groups, all relative to white British-born individuals, conditional and unconditional on regional and individual characteristics. We use graphical representations to display our results.

The period we consider in our analysis are the last twelve years of the LFS: 1992 to 2004. There are two reasons for this. First, more recent data may give us more appropriate answers to current day questions related to immigration. Second, in 1992 the Labour Force Survey was converted from a yearly cross sectional survey data set into a quarterly rotating panel, where each individual participates for five consecutive quarters. Furthermore, information on wages - which form the most important indicator for economic success - is only available for this period. Individuals are asked about their earnings in the last quarterly wave from 1992 to 1996, and in the first and the last wave of the survey from 1997 onwards.

The figures we present report regression-based estimates of the differential effects of the respective outcome between an immigrant of a respective group (as indicated in the graph), relative to a white British-born individual. White British-born individuals are represented by the horizontal line through zero. The entries in the figures represent the point estimate in the difference between the respective immigrant group and British-born whites, and the 95 percent statistical confidence interval, represented by a vertical line.

Immigrants from Eastern European "new accession" (as of 2004) countries and candidate countries for future accession (Bulgaria and Romania) are not all identifiable in the LFS previous 1998[9]. In most of our analysis, we aggregate these countries together with other non-EU European countries (Israel, Albania, Switzerland, Norway, other former Yugoslavia, other former USSR and other Europe) into the category "Other Europe". In addition, we estimate outcome differentials from 1998 to 2004, where we compare immigrants only from accession countries with British-born whites. We discuss results from these estimates in the text. Note however that this period includes mainly years pre-accession; results can therefore not interpreted as outcome differentials between British born whites and individuals the new immigrants from the accession countries post-accession. The data available to perform robust analysis on the latter group is still not sufficient, as we only have less than one year of LFS data available to date. Regression specifications are otherwise the same as for the full sample.

All upper panels of the figures report results for males, and the lower panels report results for females. The left panels report unconditional differences which only correct for changes over time (the numbers refer to a base year, which we choose to be 1992). Part of these differences could still be due to differences in the age composition, education, or regional distribution of immigrants versus British-born individuals. We therefore also report differences which compare an immigrant from a respective ethnic group with a white British-born individual of the same age, education and regional distribution. These differences are reported in the right hand panels of the figures. Full specifications of our regressions and results are reported in the Appendix, section 6.

[9]Eastern European "New accession" countries as of 2004 are the Czech Republic, Slovakia, Slovenia, Hungary, Poland, Estonia, Latvia, Lithuania. Candidate countries are Bulgaria and Romania.

Employment

We commence by discussing employment probabilities (defined as the probability of an individual being employed rather than unemployed) for males (upper two panels in Figure 4.1). We have ordered the origin countries such that ethnic minority immigrants are in the left area of the graphs, and white immigrants are in the right area. The upper left graph reports simple average differences, where we only condition on time effects (which include the year of the survey, and the quarter of the interview).

The entries indicate that ethnic minority individuals, and in particular individuals from the Caribbean, Pakistani, black African, and Bangladeshi communities, have significantly lower employment probabilities than most white immigrants, who are similar in this respect to the British-born white population. Exceptions are white individuals from other European countries.

In the upper right graph, we report results where we keep location choice and individual characteristics constant. We compare therefore male immigrants and white British-born individuals with the same age and education, and who are located in the same region (first and second pairs of columns of Table 6.1). Coefficient estimates change slightly, and the differences to the white British-born population narrows for the Bangladeshis.

The figure indicates that some immigrant groups have a substantially lower probability to be employed, compared to white British-born individuals. The five most disadvantaged groups are black Caribbeans, black Africans, Pakistanis, Bangladeshis and non-EU Europeans. Among non-EU Europeans, immigrants from "new accession" and candidate countries have a smaller (but still significant) disadvantage of 2 percentage points with respect to the 6 percentage points disadvantage of the other non-EU European group. On the other hand, most white immigrants, and immigrants from the Indian, Chinese and Afro-Asian communities have virtually identical employment probabilities to the white British-born.

We report in the lower two panels results for females (results are reported in the third and fourth pairs of columns in Table 6.1). The picture which emerges is quite similar to that for males, but the divergence across the different groups is larger. Again, the most disadvantaged

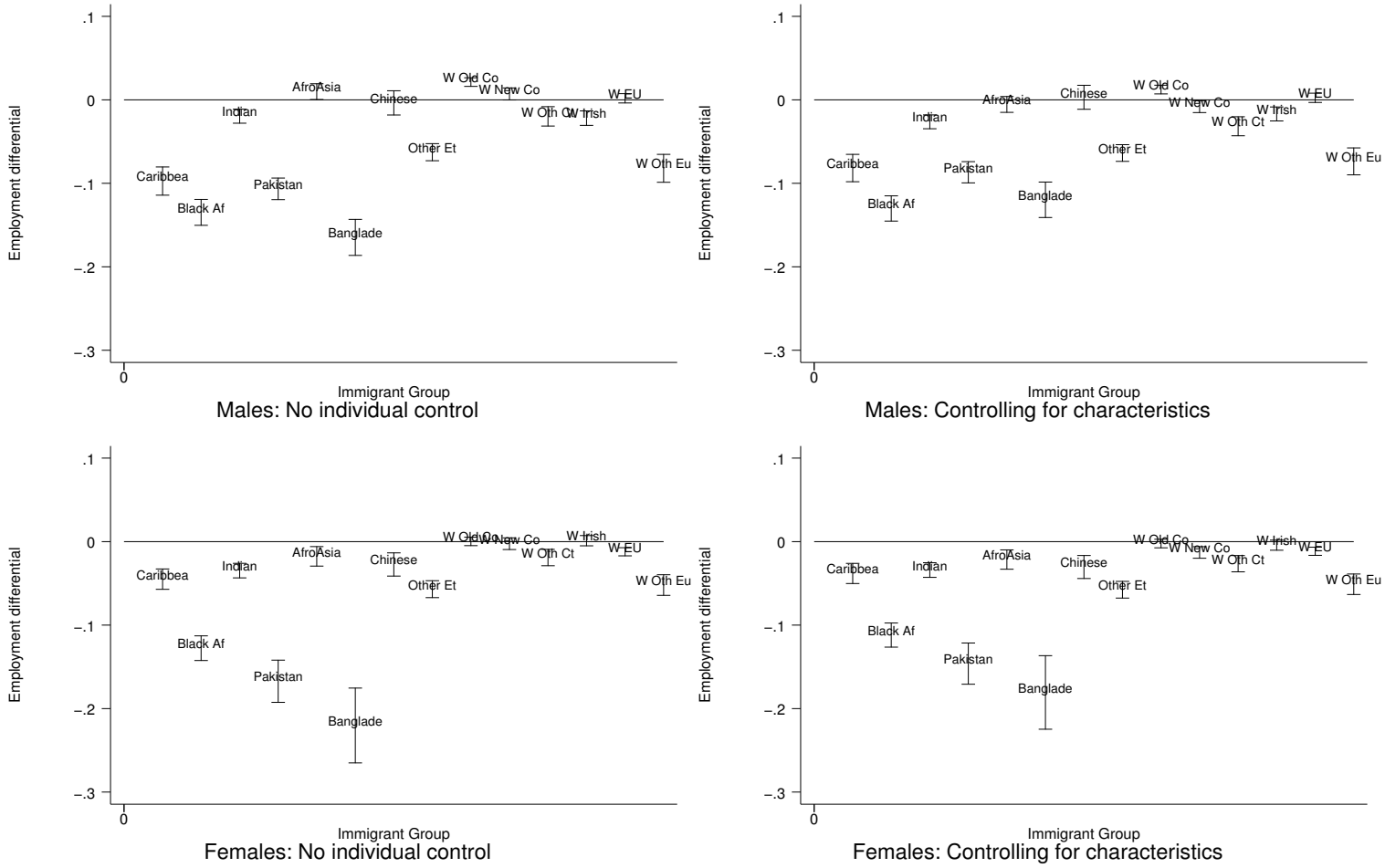

Figure 4.1: Employment differentials, foreign and white British-born individuals

groups are Pakistanis, Bangladeshis, black Africans and, to a minor extent, black Caribbeans. On the other hand, most white immigrant groups are very similar to British-born whites.

Participation

Above, we have investigated the probability of an individual to be in employment, given that he or she is in the labour force. We now look at the decision of the individual whether or not to participate in the labour market. Both employed individuals, and individuals who are unemployed, but who look for a job fall in the category participation; those who are not employed, and who are not looking for a job are economically inactive.

In Figure 4.2 we report participation differentials between British-born whites and the foreign-born. The structure of the figure is the same as the one for employment.

For males, the participation probabilities (upper left panel) are for many immigrant groups significantly lower than for the British-born white population. The differentials are quite substantial, with for instance, Carribeans, Pakistanis and Bangladeshis having about 8-10 percentage points lower participation probabilities than British born whites; white Irish and non-EU Euroepans have similarly low participation probabilities. However, among non-EU Europeans, the differential is smaller for "new accession" and candidate countries (3 percentage points) than for other Europeans (8 percentage points).

There is quite some change in differentials across groups once we condition on region and individual characteristics (upper right panel), suggesting that differences in observables explain some of the differences in the previous panel. However, many immigrant groups have still participation probabilities which are about 9 percentage points lower than those for white British-born individuals. Again, Pakistanis, Bangladeshis and white Europeans from outside the EU have the lowest participation probabilities. However, when we distinguish between "new accession" and candidate countries and other non-EU Europeans, we again find that the differential in participation for the former group is 4 percentage points against 10 percentage points for the latter group. Some other groups, like the Black Africans, whites from Old Commonwealth countries, or Afro-Asians, deteriorate relative to British born whites in their

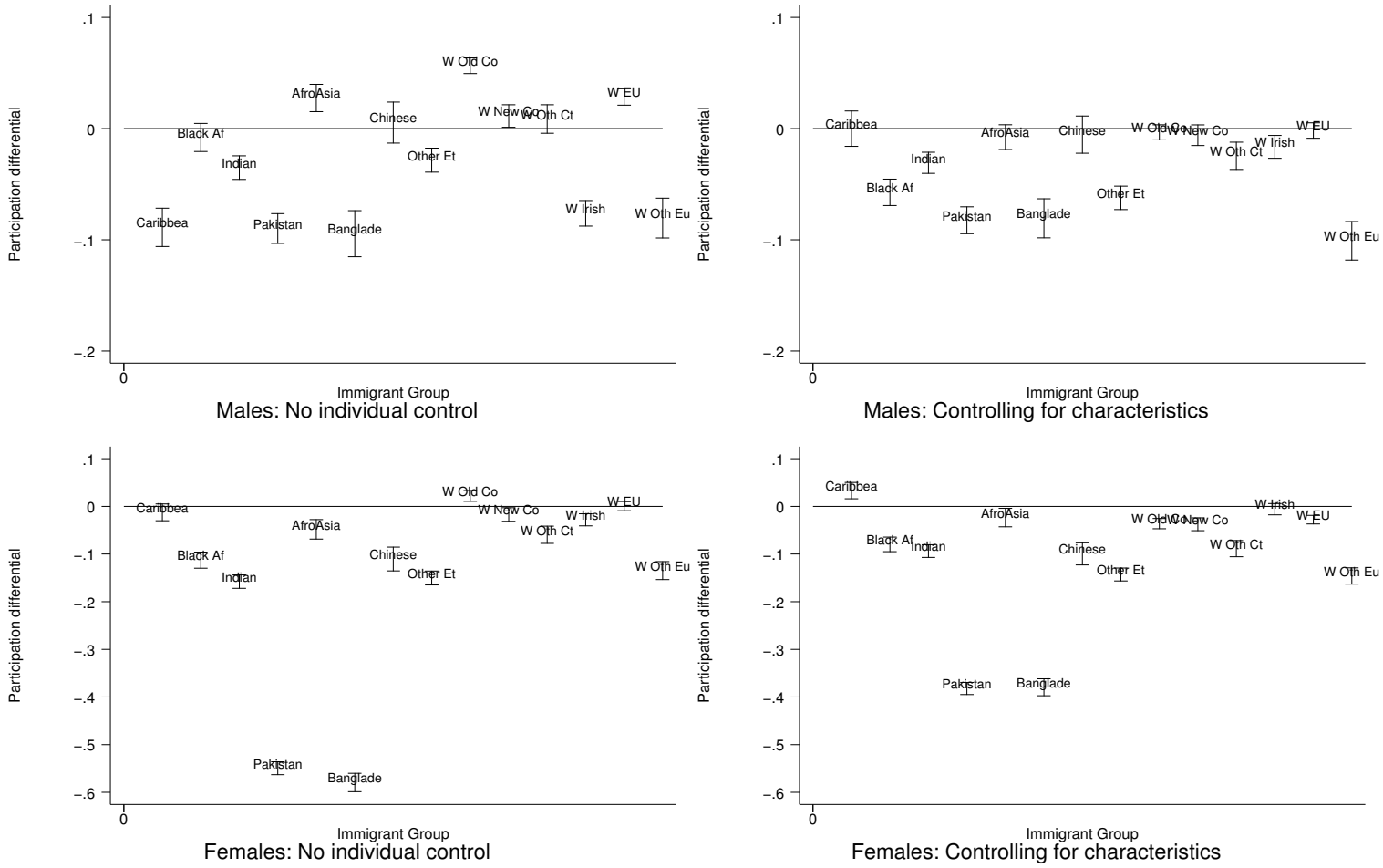

Figure 4.2: Participation differentials, foreign and white British-born individuals

participation probabilities, suggesting that education or age structure as well as regional allocation may boost their relative participation probabilities on average.

Overall, these results suggest that characteristics like education and age, and regional distribution only explain a small part in participation differentials. Differences in observables favour many immigrant groups. For some ethnic communities, a far larger proportion of male immigrants is economically inactive, compared to British-born whites with the same demographic characteristics.

More dramatic is the comparison with females. Here individuals from the Pakistani and Bangladeshi communities clearly stand out, with unconditional participation probabilities that are more than 50 percentage points lower than those of native born whites. But also, other groups, like Black Africans, Indians, and the Chinese, have substantially lower participation probabilities. The conditional estimates in the lower right panel change this picture only slightly. The differential for Pakistani and Bangladeshi women reduces now to 36 percentage points, suggesting that some of the overall disadvantage for these groups is explained by unobservables. However, the remaining differences are still substantial. Among non-EU Europeans, and similarly to males, participation differentials are smaller for immigrants from "new accession" and candidate countries (7 percentage points) than for other non-EU Europeans (15 percentage points).

Similarly, significant and sizeable differences remain for some of the other groups once we condition on observables.

Self-employment

We now turn to self-employment, again using British-born whites as a reference group. We also investigate sectoral allocation of the self employed, to see whether immigrants' activities in self-employment are concentrated in the same sectors as British-born individuals' activities.

It is not unreasonable to hypothesise that some immigrant groups may have a comparative advantage in engaging in certain self-employment activities - it is well known for instance that the arrival of Indian restaurants has changed the standards of English cuisine, with some

dishes of clearly Indian origin considered as national dishes today. Expertise and know-how in this sector is unlikely to be challenged by British-born white individuals. Furthermore, immigrants may also have an advantage when catering for other immigrants - they may be more skilled in understanding their preferences and tastes than individuals from the white British-born community.

This last point has been put forward by Borjas (1986) in an early comparison of self-employment probabilities for individuals from distinguishable groups in the same country. He analyses differences in self-employment propensities between foreign-born and US-born workers, using US census data, finding that immigrants are more likely to be self-employed than US-born individuals with similar levels of skills. Borjas explains this with what he calls *enclave effects*: Immigrants create enclaves by concentrating in geographical areas. Such enclaves then provide self-employment opportunities for other members of the respective ethnic group. In these enclaves US-born individuals lack knowledge of language and preferences of potential customers and have therefore a disadvantage when competing for the same self-employment opportunities.

Borjas and Bronars (1989) extend this analysis. They do not separate according to immigration status, but according to race and ethnic affiliation. Across ethnic/racial groups, they find that minorities have lower rates of self-employment. If self-employed, they have lower incomes than white self-employed workers. They explain these findings by consumer discrimination that reduces gains from self-employment for minorities.

This evidence from the US suggests that individuals from minorities have a general disadvantage when they compete for self-employment opportunities against individuals from majorities with the same characteristics, and in the same sector. This disadvantage is re-enforced if potential customers discriminate against self-employed minority workers. They, however, may have advantages over majorities in self-employment sectors where customers discriminate against majorities. This could, for instance, be the case when potential customers are mainly from minority groups, or where minority individuals have clear technological advantages in production.

We commence our analysis by investigating the choice of sector for British-born whites and

immigrants; we break the immigrant sample down further into white immigrants and minority immigrants, and consider some origin countries in more detail (see table 4.1). White British-born individuals are heavily concentrated in construction, which is the largest sector with 32 per cent, followed by finance and insurance and banking (17 per cent) and distribution, hotels and restaurants (16 per cent). This contrasts sharply with the overall sector allocation of immigrants who are heavily concentrated in distribution, hotels and restaurants - 31 per cent of self-employed immigrants are active in this sector. When we further distinguish between white and ethnic minority immigrants, we see that it is mainly ethnic minority individuals who are concentrated in this sector - concentration of white individuals is more outspread and not too dissimilar to that of the white British-born.

In columns 5-8, we consider four groups of ethnic minority immigrants who are strongly represented in the self-employment sector: Pakistanis, Chinese, Asians of African origin, and immigrants from India. The large concentration in distribution, hotels and restaurants is visible for all groups, but very strong for the Chinese and the African Asians. There are however also interesting differences. Most notable is the large percentage of Pakistanis who are active in the transport and communication sector.

In the last column, we present sector allocation for an interesting group of white immigrants: the Irish. They are heavily concentrated in construction, with 55 per cent being active in this sector. Overall, these numbers indicate a very unequal distribution of individuals of different ethnic origin in different self-employment occupations.

While the figures in the previous table were conditional on being self-employed, we now compare overall self-employment probabilities of immigrants with those of British-born whites, where we distinguish, as before, between different origin countries.

The graphs in Figure 4.3 show the probabilities of immigrants of different origin of being self-employed, relative to British-born whites. The presentation of results is the same than in the previous sections on employment and participation. Entries differ quite considerably for immigrants of different origin. For the male sample, it seems that individuals from the Pakistani, Chinese, and Afro-Asian communities have the highest probabilities to engage in self-employment activities. In general, the variation in probabilities is much higher for

Table 4.1: Self-employment sector choice, British-born white and immigrant men

Sector	White British-born	Immigrants	White immigrants	Minority immigrants	Pakistani	Chinese	African Asian	Indian	Irish
Agriculture & fishing	6.75	1.47	2.76	0.13	–	0.15	0.73	–	2.08
Energy & water	0.30	0.28	0.34	0.22	–	0.15	0.07	0.45	0.24
Manufacturing	8.00	6.26	7.45	5.04	3.78	3.12	6.76	6.88	4.60
Construction	31.76	16.23	24.10	7.99	2.97	1.63	6.62	11.00	54.62
Distribution, hotels & restaurants	16.37	30.62	19.11	42.73	34.21	76.11	50.84	42.19	9.25
Transport & communication	7.20	11.92	5.54	18.62	46.36	4.30	4.87	9.84	5.18
Banking, finance & insurance etc	17.28	17.95	22.17	13.47	6.94	7.27	15.85	13.46	10.17
Public admin, education & health	4.84	7.50	7.56	7.44	3.44	4.90	10.11	12.05	6.30
Other services	7.42	7.48	10.60	4.18	2.11	2.08	4.07	4.12	7.36
Workplace outside uk	0.04	0.25	0.33	0.18	0.19	0.30	0.07	–	0.19

Source: LFS, 1992-2004. Table entries are percentages.

individuals from ethnic minority groups (in both directions), while white immigrants are quite homogeneous in this respect, and show self-employment probabilities hardly different than those of British-born whites. Immigrants from non-EU European countries are an exception. More detailed analysis inside this group shows that for immigrants from "new accession" and candidate countries self-employment probabilities are 5 percentage points higher and for other Europeans 9 percentage higher than for British-born whites. For both immigrant groups these differentials are significant. The conditional and unconditional results show only slight differences for all immigrant groups.

The graphs for females are interesting. Females of nearly all immigrant groups, including the white immigrants, exhibit larger probabilities of self-employment than the white British born reference group. The overall pattern of self-employment probabilities is not dissimilar from that for males, where the Chinese have the highest probabilities of engaging in self-employment activities, and individuals from the Caribbean and West Africa having the lowest probabilities. Similar to males, the white foreign-born groups are quite homogenous.

These findings suggest large differences in self employment probabilies as well as self employment sector choice between immigrants and British born whites, as well as across the different immigrant origin groups. The findings are consistent with the hypothesis that immigrants have an advantage over majorities in self-employment sectors where customers discriminate against majorities - like distribution, hotel and restaurants, where we see a heavy concentration of immigrants from certain minority groups. Future work should investigate this in more detail.

Wages

We now turn to analysing wage differentials between immigrants and white British-born individuals. The quarterly LFS contains information on gross hourly wages (obtained from information on gross weekly wage and numbers of hours worked weekly) over the last twelve years, but only for the fifth quarterly wave (1992-1996) or the first and the fifth quarterly wave (1997 onward). The data base is by now sufficiently large to analyse wages for different immigrant groups. The breakdown according to origin seems to be very important in the

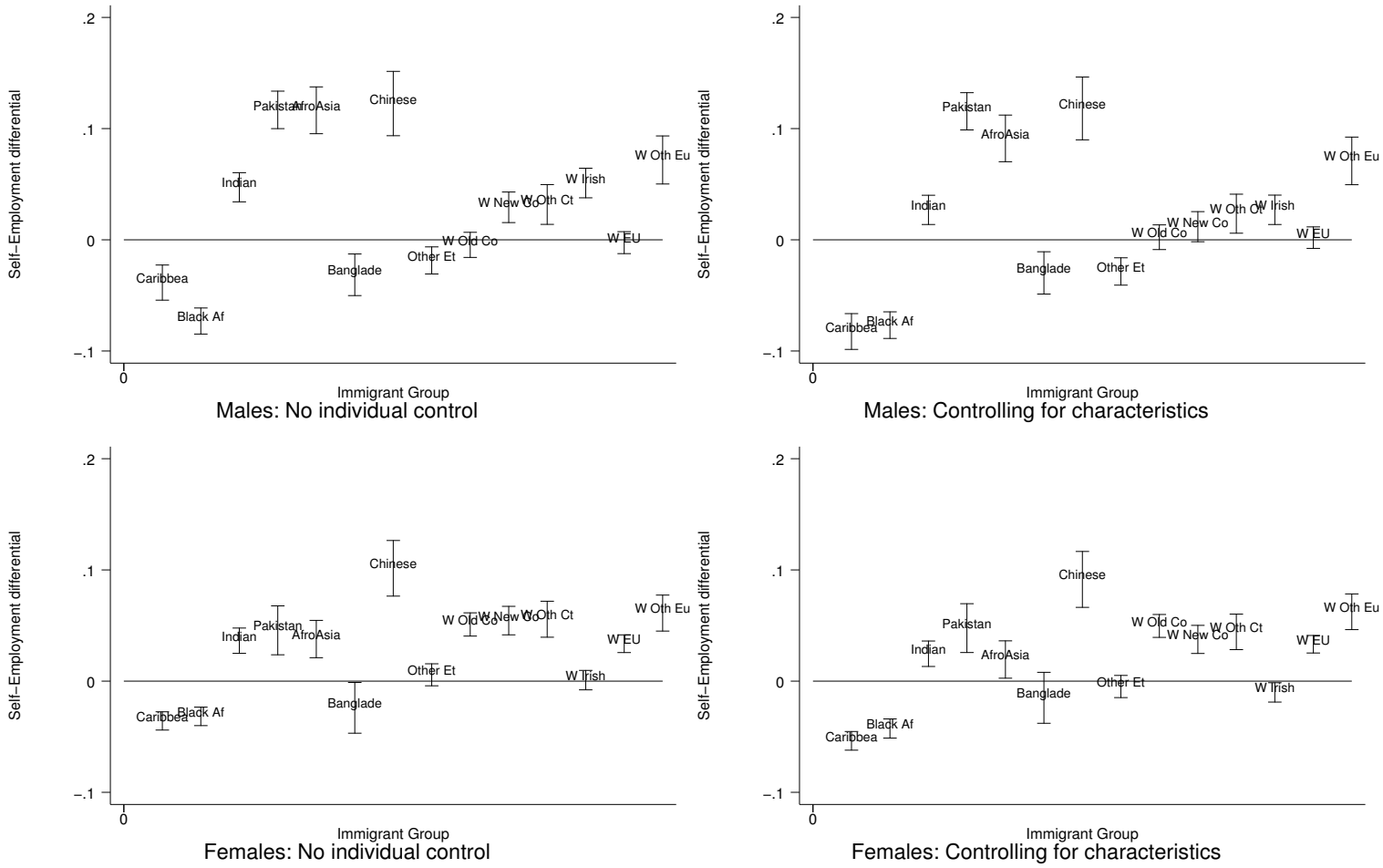

Figure 4.3: Self-employment differentials, foreign and white British-born individuals

British case, since the economic behaviour of the immigrant population is so heterogeneous, as we have illustrated above. Our measure for earnings is the gross hourly wage.

Again, we commence by investigating the differences in wages between different immigrant groups, and British-born white individuals, estimating similar models to those above. We use the same graphical presentation for the relative earnings advantages or disadvantages of the foreign-born, and the same origin classification as above.

Notice that, although we report results where we condition on individual characteristics, we do not include the years of residence in the regressions. As a consequence, the coefficients we obtain compare British-born individuals and foreign-born with the same characteristics, where the foreign-born are evaluated at the average number of years of residence in Britain for the respective group.

Figure 4.4 summarises our main results. More detailed regression results on which these figures are based are presented in the Appendix (Table 6.4). We first discuss the male immigrants.[10]

The upper left panel reports unconditional results. The most obvious feature of the graph is the apparent difference between ethnic minority immigrants and white immigrants, with large wage advantages for some white immigrant groups, and large disadvantages for ethnic minority groups. The wage differences between non-white immigrants and white British-born increase for most groups when we condition on individual characteristics and regional distribution, which is explained to some extent by the fact that ethnic minority immigrants concentrate heavily in high wage areas, like London. Conditional on individual characteristics and region, all non-white immigrant groups have average wages which are more than 10 per cent lower than those of the white British-born population.

The differentials for some ethnic minority groups are substantial. Unconditional on individual characteristics and region, Bangladeshis and Pakistanis earn about 44 and 25 per cent lower wages than white British-born; when we condition on individual characteristics

[10]We compute per cent differences in wages as $(e^{\hat{\beta}} - 1)$*100, where $\hat{\beta}$ is the estimated parameter of the respective origin dummy.

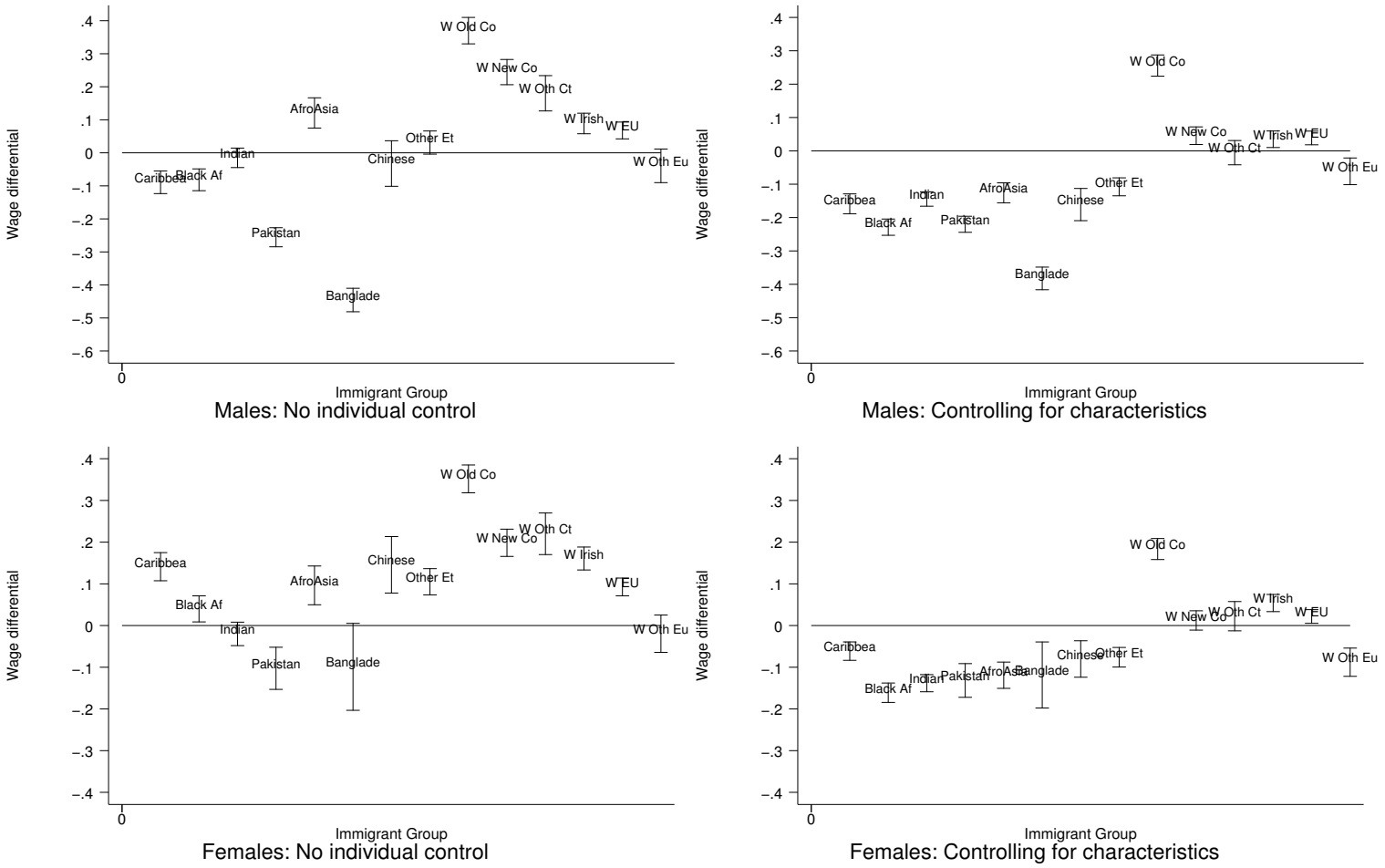

Figure 4.4: Wage differentials, foreign and white British-born individuals

and region, this difference reduces to 38 and 22 per cent, which is still large. On the other hand, white immigrants earn similar wages to comparable British-born, with some groups earning significantly higher wages, even conditional on observed characteristics. For instance, individuals from the Old Commonwealth countries earn on average 26 per cent higher wages than comparable British-born individuals. Non-EU Europeans are the only white immigrants with an earnings disadvantage with respect to white natives. However, this disadvantage is driven solely by Europeans not from accession or candidate countries; immigrants from "new accession" and candidate countries do not perform significantly differently from white natives.

For females, the patterns are similar, but overall differentials are smaller. There is a large change in numbers when we condition on observables - again, this is largely due to immigrants, in particular those from minority populations, being concentrated in London and other metropolitan areas where wages are higher. As for males, we see again a divide between immigrants from minority groups, and white immigrants, in their wage position relative to white British born individual. Immigrants from all the minority groups have on average lower wages than white British born females, adjusting for observable characteristics and region, while immigrants from most white groups have higher wages, except for immigrants from non-EU European countries. Again, however, and like for males, there is no significant disadvantage for female immigrants from "new accession" and candidate countries.

5 Summary and Conclusions

This paper provides a comprehensive picture of the labour market outcomes of immigrant groups in Britain relative to the British-born white population today, and over the last 2 decades. Drawing on data from the LFS over the period from 1979 to 2004, we describe basic features of the foreign-born population in Britain, their allocation to different labour market segments, how their employment and participation probabilities have changed over time, and how particular outcomes compare to those of British-born whites. Four indicators of economic performance are investigated in more detail, pooling data over the last decade: (i) employment, (ii) labour force participation, (iii) self-employment, and (iv) wages. Our analysis distinguishes between males and females, and between groups of different origin.

Our main findings can be summarised as follows:

- More than one third of all working age immigrants living in Britain in 2004 have arrived over the last 10 years. The composition of the immigrant population over the two decades has changed, with many of the recent arrivals coming from the Old Commonwealth, European Union (EU) countries, and non-EU European countries (Poland in particular).

- In the year 2004, foreign-born individuals constituted about 10.5 percent of the working-age population in Britain. On average, immigrants have spent 15 years in Britain in 2004, but there are large differences across the different origin groups.

- Many immigrants arrive at a very young age: of the working age population in 2004, about 27 percent have arrived before the age of 16.

- The immigrant community as a whole is well educated. In 2004, there were 5 percent more graduates among immigrants than among white British born. There is however large variation according to country of birth.

- Immigrants are heavily concentrated in the capital. In 2004, eight percent of British born whites of working age lived in London, compared with 45 percent of the foreign-

born. The concentration of foreign-born individuals in London increased between 1983 and 2004.

- Employment and participation rates of foreign-born ethnic minority individuals are considerably lower than those of British born whites. These differences have increased substantially since 1979. Employment and participation of minority immigrants is more volatile over the economic cycle. The labour market performance of foreign-born white immigrants is very similar to that of British-born white individuals. Females from the Bangladeshi and Pakistani communities have the lowest participation rates among ethnic minority individuals.

- Sector concentration differs substantially across immigrant communities.

Investigating the economic performance of foreign-born individuals, in comparison to British-born whites, we distinguish between employment, participation, self-employment, and wages. The analysis distinguishes between different origin groups, and males and females, with and without conditioning on socio-economic characteristics and regional distribution. Our main findings can be summarised as follows:

- Comparing white British-born individuals with immigrants of the same age, education, and geographical distribution, we find that white immigrants have similar employment probabilities to British-born whites. Minority immigrants have on average lower employment probabilities, with Black Africans, Bangladeshi, Pakistanis and Caribbeans being the most disadvantaged. This is true for both men and women.

- Participation rates differ substantially between immigrant communities, with some (predominantly the white communities) being similar to British-born whites, while others (predominantly immigrants from some ethnic minority communities) having substantially lower participation probabilities, even if we allow for differences in socio-economic characteristics and regional distribution. Pakistanis and Bangladeshis are the most disadvantaged groups.

- Turning to self-employment, there is a strong concentration in particular sectors, depending on origin. Among self-employed immigrants from the ethnic minority communities, 43 per cent is active in the Distribution, Hotel and Restaurant sector (compared to one in six in the British-born white population). White immigrants are concentrated in both the construction sector, and the distribution, hotel and restaurant sector. Compared to British-born whites of same characteristics, white male immigrants have slightly higher probabilities of being self-employed. There is large variation across minority immigrants: while Pakistanis, Afro-Asians and Chinese are more likely to be self-employed, Caribbeans and black Africans are less likely to be self-employed, compared to white British-born individuals.

- For wages, there is a dividing line between white and non-white immigrants. While individuals from most white immigrant communities have on average higher wages than British-born whites with the same characteristics, immigrants from all ethnic minority communities have lower wages. This is true for both males and females, with differences being more accentuated for males. Wage differentials are substantial, reaching about 40 percent for male Bangladeshis.

Possibly the strongest finding of this paper is that immigrants in Britain are far from homogeneous. Immigrants of different origin differ substantially with respect to their education and age structure, their regional distribution, sector choice and time of residence in Britain. But these observable differences explain only a part of the differences in economic outcomes. We do not have a simple answer for why there are large remaining differences between immigrants of different origin, conditional on observable characteristics. One reason may be language proficiency. Results from Dustmann and Fabbri (2003) indicate that language proficiency is lowest among those groups that exhibit the largest disadvantages in the labour market, and that language is an important determinant for economic success. More and better data, which allows to link language ability to economic outcomes, would be helpful to quantify more precisely the degree to which disadvantages of some groups relate to language.

Other reasons for the relative disadvantages of some groups may relate to culture and religion. The very low participation probabilities of Bangladeshi and Pakistani women may be partly explained by these factors.

Reasons for the divergence in economic success may also relate to discrimination. Our analysis is not intended to investigate this issue, and does not provide any hard evidence for this hypothesis. But the large differences in the probabilities to be employed across immigrant groups, conditional on being in the labour force, are indicative for demand factors playing some role. Further analysis in this area is necessary to investigate the precise nature of this relationship.

The finding that immigrants are quite active in self-employment activities, and that they concentrate in different sectors, according to their origin, may be related to comparative advantages in certain sectors. One popular hypothesis is that immigrants choose to become self-employed because the labour market discriminates against them. Our findings seem not to be compatible with this hypothesis. While both Pakistanis and Bangladeshis are among those groups with the lowest employment and participation rates, and the lowest wages, there is a large difference in the probability to be self-employed, with Pakistanis having on average a 12 per cent higher probability to be self-employed than British-born white individuals, while Bangladeshis have a 3 per cent lower probability. Self-employed immigrants are likely to make important contributions to the British economy, by providing work opportunities, and enriching consumer choice by offering goods and services in areas where they have expertise. To quantify these effects is important, and a further important area for detailed future research.

Our study also provides a first step into the analysis of immigrants coming from "new accession" and candidate countries. As EU enlargement happened in the last few months of our sample period, we have not been able to provide analysis of their economic outcomes after accession, and have instead provided figures pooling data for the period between 1998-2004. More detailed research on this group, based on more data points post-accession, will soon be possible.

6 Appendix

Technical details

In much of our investigation, we use regression analysis to compare economic outcomes of the different immigrant groups with those of British-born whites. The conditional outcome differentials are based on the following regression model:

$$O_{it} = a_0 + x'_{it}\mathbf{a_1} + OR'_{it}\mathbf{a_2} + R'_{it}\mathbf{a_3} + Y'_{it}\mathbf{a_5} + u_{it}\,, \tag{1}$$

where O_{it} is the respective outcome measure for individual i in period t, x_{it} is a vector of individual-specific characteristics, like age, education, whether the job is a part-time job etc., R_{it} is a vector of dummy variables, reflecting the region of residence of individual i in period t, and Y_{it} is a set of year and quarter dummies. The set of variables OR_{it} are dummy variables for the respective origin of the immigrant.

We estimate the regression in (1), pooling immigrants and British-born individuals. The graphs we present in chapter 3 are based on estimated parameters $\hat{\mathbf{a}}_\mathbf{2}$. They measure the difference in outcomes between a white British-born individual (reference group), and an individual from the respective immigrant community, conditional on other regressors. The graphs in the left panel of the figures are based on regressions which only include the set of origin dummies, and year and quarter dummies.

Glossary

Origin variables and ethnicity

In much of the analysis, we group immigrants by country of origin category. Sample size requires us to pool countries of origin. We also distinguish between white and non-white immigrants (for example, we distinguish between white immigrants born in New Commonwealth countries from "ethnic" Indians, "ethnic" Bangladeshis, etc.) to understand whether these two groups perform differently.

The immigrants groups we use in the analysis are as follows:

Caribbean: individuals declaring to belong to this ethnic group, and born in the West Indies and Other Caribbean Commonwealth.

Black African: individuals declaring to belong to this ethnic group, and born on the African continent.

Indian: individuals declaring to belong to this ethnic group, and born in India.

Afro-Asian: individuals declaring to belong to the Indian or Pakistani ethnic groups, but born in Africa.

Pakistani: individuals declaring to belong to this ethnic group, and born in Pakistan.

Bangladeshi: individuals declaring to belong to this ethnic group, and born in Bangladesh.

Chinese: individuals declaring to belong to this ethnic group, and born in China (including Taiwan and Hong Kong).

Irish: white individuals born in Ireland.

EU: white individuals born in the European Union as before the 2004 enlargement.

Other Europe: white individuals born in non-EU European countries (Israel, Albania, Bulgaria, former Czechoslovakia, Hungary, Poland, Romania, Switzerland, Norway, other Yugoslavia, Turkey, former USSR, other Europe).

Old Comm: white individuals born in the Old Commonwealth and the US.

White New Comm: white individuals born in the New Commonwealth (including Pakistan and South Africa).

Other Countries: white individuals born in other countries.

Other Variables

age: Age of individual.

age sq/100: Age of individual squared and divided by 100.

married: Dummy variable equal to 1 if the individual is married or cohabiting.

n children: Number of dependent children under 18 in the family.

degree: Dummy equal to 1 if the individual has a first or higher degree or other degree level qualification.

A-level: Dummy equal to 1 if the individual has Higher Education qualification below degree level or A-level or equivalent.

O-level: Dummy equal to 1 if the individual has O-level or equivalent or any other professional-vocational qualifications.

Tables

Table 6.1: Immigrants vs white British-born: employment

	MALES				FEMALES			
Variable	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**
Caribbean	-0.097	(0.008)**	-0.082	(0.008)**	-0.045	(0.006)**	-0.038	(0.006)**
Black African	-0.135	(0.008)**	-0.130	(0.008)**	-0.128	(0.007)**	-0.112	(0.007)**
Indian	-0.020	(0.004)**	-0.026	(0.004)**	-0.035	(0.004)**	-0.034	(0.004)**
Pakistani	-0.107	(0.006)**	-0.087	(0.006)**	-0.167	(0.013)**	-0.146	(0.012)**
Afro-Asian	0.010	(0.005)*	-0.006	(0.005)	-0.018	(0.006)**	-0.021	(0.006)**
Bangladeshi	-0.165	(0.011)**	-0.120	(0.011)**	-0.220	(0.022)**	-0.181	(0.022)**
Chinese	-0.004	(0.007)	0.003	(0.007)	-0.027	(0.007)**	-0.030	(0.007)**
other ethnic	-0.063	(0.005)**	-0.064	(0.005)**	-0.057	(0.005)**	-0.058	(0.005)**
Old Comm	0.021	(0.003)**	0.012	(0.003)**	0.000	(0.003)	-0.002	(0.003)
White New Comm	0.007	(0.004)	-0.008	(0.004)*	-0.002	(0.004)	-0.013	(0.003)**
Other	-0.020	(0.006)**	-0.032	(0.006)**	-0.019	(0.005)**	-0.026	(0.005)**
Irish	-0.027	(0.005)**	-0.021	(0.004)**	0.004	(0.003)	-0.003	(0.003)
EU	0.002	(0.003)	0.002	(0.003)	-0.012	(0.002)**	-0.012	(0.002)**
Other Europe	-0.082	(0.008)**	-0.074	(0.008)**	-0.052	(0.006)**	-0.051	(0.006)**
age	-	-	0.009	(0.000)**	-	-	0.008	(0.000)**
age sq/100	-	-	-0.010	(0.000)**	-	-	-0.009	(0.000)**
married	-	-	0.078	(0.001)**	-	-	0.045	(0.001)**
n children	-	-	-0.011	(0.000)**	-	-	-0.014	(0.000)**
degree	-	-	0.103	(0.001)**	-	-	0.059	(0.001)**
A-level	-	-	0.086	(0.001)**	-	-	0.055	(0.001)**
O-level	-	-	0.069	(0.001)**	-	-	0.038	(0.001)**
Region dummy	No		Yes		No		Yes	
Intercept	0.899	(0.001)**	0.629	(0.004)**	0.934	(0.001)**	0.710	(0.004)**
N	1630106		1626968		1367681		1365709	
R^2	0.01		0.06		0.01		0.04	

Note: Reference category: British-born whites, no qualification. Robust standard errors reported. All specifications include year and quarter dummies; w stands for white.

Table 6.2: Immigrants vs white British-born: participation

	MALES				FEMALES			
Variable	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**
Caribbean	-0.089	(0.009)**	-0.000	(0.008)	-0.013	(0.009)	0.033	(0.009)**
Black African	-0.008	(0.006)	-0.057	(0.006)**	-0.113	(0.008)**	-0.080	(0.008)**
Indian	-0.035	(0.005)**	-0.031	(0.005)**	-0.158	(0.007)**	-0.094	(0.007)**
Pakistani	-0.090	(0.007)**	-0.082	(0.006)**	-0.549	(0.007)**	-0.382	(0.006)**
Afro-Asian	0.028	(0.006)**	-0.008	(0.006)	-0.048	(0.010)**	-0.023	(0.010)*
Bangladeshi	-0.094	(0.010)**	-0.081	(0.009)**	-0.579	(0.010)**	-0.380	(0.009)**
Chinese	0.005	(0.009)	-0.005	(0.008)	-0.110	(0.012)**	-0.100	(0.012)**
other ethnic	-0.028	(0.005)**	-0.062	(0.005)**	-0.150	(0.007)**	-0.143	(0.007)**
Old Comm	0.057	(0.004)**	-0.003	(0.003)	0.022	(0.006)**	-0.036	(0.005)**
White New Comm	0.011	(0.005)*	-0.006	(0.005)	-0.017	(0.007)*	-0.038	(0.007)**
Other	0.009	(0.006)	-0.024	(0.006)**	-0.060	(0.009)**	-0.089	(0.008)**
Irish	-0.098	(0.006)**	-0.020	(0.005)**	-0.034	(0.007)**	-0.001	(0.006)
EU	0.028	(0.004)**	-0.002	(0.003)	0.001	(0.005)	-0.028	(0.005)**
Other Europe	-0.080	(0.009)**	-0.101	(0.009)**	-0.135	(0.009)**	-0.146	(0.009)**
age	-	-	0.021	(0.000)**	-	-	0.016	(0.000)**
age2/100	-	-	-0.036	(0.000)**	-	-	-0.027	(0.000)**
married	-	-	0.073	(0.001)**	-	-	0.018	(0.001)**
n children	-	-	-0.007	(0.000)**	-	-	-0.079	(0.001)**
degree	-	-	0.149	(0.002)**	-	-	0.286	(0.002)**
A-level	-	-	0.126	(0.002)**	-	-	0.241	(0.002)**
O-level	-	-	0.113	(0.002)**	-	-	0.188	(0.002)**
Region dummy	No		Yes		No		Yes	
Intercept	0.894	(0.001)**	0.566	(0.004)**	0.750	(0.002)**	0.468	(0.006)**
N	1855606		1852189		1819131		1816924	
R^2	0.003		0.17		0.02		0.12	

Note: Reference category: British-born whites, no qualification. Robust standard errors reported. All specifications include year and quarter dummies; w stands for white.

Table 6.3: Immigrants vs white British-born: self-employment

	MALES				FEMALES			
Variable	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**
Caribbean	-0.038	(0.008)**	-0.082	(0.008)**	-0.036	(0.004)**	-0.054	(0.004)**
Black African	-0.073	(0.006)**	-0.077	(0.006)**	-0.032	(0.004)**	-0.043	(0.004)**
Indian	0.047	(0.007)**	0.027	(0.007)**	0.036	(0.006)**	0.025	(0.006)**
Pakistani	0.117	(0.008)**	0.116	(0.008)**	0.046	(0.011)**	0.048	(0.011)**
Afro-Asian	0.116	(0.011)**	0.091	(0.010)**	0.038	(0.008)**	0.019	(0.008)*
Bangladeshi	-0.031	(0.009)**	-0.030	(0.010)**	-0.024	(0.011)*	-0.015	(0.011)
Chinese	0.123	(0.014)**	0.118	(0.014)**	0.101	(0.013)**	0.091	(0.013)**
other ethnic	-0.019	(0.006)**	-0.028	(0.006)**	0.006	(0.005)	-0.005	(0.005)
Old Comm	-0.005	(0.006)	0.002	(0.006)	0.051	(0.005)**	0.050	(0.005)**
White New Comm	0.029	(0.007)**	0.012	(0.007)	0.054	(0.006)**	0.038	(0.006)**
Other	0.032	(0.009)**	0.023	(0.009)**	0.056	(0.008)**	0.044	(0.008)**
Irish	0.062	(0.007)**	0.032	(0.007)**	-0.006	(0.004)	-0.019	(0.004)**
EU	-0.003	(0.005)	0.002	(0.005)	0.034	(0.004)**	0.033	(0.004)**
Other Europe	0.072	(0.011)**	0.071	(0.011)**	0.061	(0.008)**	0.062	(0.008)**
age	-	-	0.009	(0.000)**	-	-	0.004	(0.000)**
age2/100	-	-	-0.006	(0.000)**	-	-	-0.002	(0.000)**
married	-	-	0.016	(0.001)**	-	-	0.014	(0.001)**
n children	-	-	0.009	(0.001)**	-	-	0.014	(0.000)**
degree	-	-	-0.030	(0.002)**	-	-	0.043	(0.002)**
A-level	-	-	-0.000	(0.002)	-	-	0.029	(0.001)**
O-level	-	-	-0.027	(0.002)**	-	-	0.010	(0.001)**
Region dummy	No		Yes		No		Yes	
Intercept	0.155	(0.001)**	-0.095	(0.005)**	0.067	(0.001)**	-0.075	(0.004)**
N	1630106		1626968		1367681		1365709	
R^2	0.002		0.04		0.002		0.02	

Note: Reference category: British-born whites, no qualification. Robust standard errors reported. All specifications include year and quarter dummies; w stands for white.

Table 6.4: Immigrants vs white British-born: wages

	MALES				FEMALES			
Variable	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**	**Coeff**	**SE**
Caribbean	-0.093	(0.019)**	-0.173	(0.018)**	0.132	(0.015)**	-0.063	(0.012)**
Black African	-0.085	(0.018)**	-0.260	(0.016)**	0.039	(0.015)**	-0.176	(0.014)**
Indian	-0.015	(0.015)	-0.156	(0.013)**	-0.020	(0.014)	-0.149	(0.012)**
Pakistani	-0.295	(0.019)**	-0.249	(0.015)**	-0.108	(0.028)**	-0.141	(0.023)**
Afro-Asian	0.114	(0.020)**	-0.134	(0.017)**	0.092	(0.021)**	-0.127	(0.018)**
Bangladeshi	-0.590	(0.032)**	-0.482	(0.027)**	-0.104	(0.058)	-0.126	(0.045)**
Chinese	-0.033	(0.036)	-0.176	(0.029)**	0.136	(0.030)**	-0.084	(0.024)**
other ethnic	0.031	(0.017)	-0.114	(0.015)**	0.100	(0.014)**	-0.079	(0.013)**
Old Comm	0.315	(0.015)**	0.228	(0.013)**	0.301	(0.012)**	0.168	(0.011)**
White New Comm	0.219	(0.015)**	0.044	(0.013)**	0.181	(0.014)**	0.012	(0.011)
Other	0.166	(0.023)**	-0.006	(0.018)	0.199	(0.020)**	0.022	(0.017)
Irish	0.089	(0.015)**	0.033	(0.012)**	0.161	(0.012)**	0.059	(0.010)**
EU	0.066	(0.012)**	0.038	(0.010)**	0.089	(0.010)**	0.022	(0.008)**
Other Europe	-0.040	(0.026)	-0.063	(0.021)**	-0.020	(0.023)	-0.092	(0.019)**
age	-	-	0.084	(0.001)**	-	-	0.065	(0.001)**
age sq/100	-	-	-0.093	(0.001)**	-	-	-0.072	(0.001)**
married	-	-	0.131	(0.002)**	-	-	0.049	0.003
degree	-	-	0.753	(0.004)**	-	-	-0.188	0.004
A-level	-	-	0.338	(0.003)**	-	-	0.775	0.004
O-level	-	-	0.191	(0.003)**	-	-	0.386	0.003
part-time	-	-	-0.203	(0.005)**	-	-	0.200	0.003
Region dummy	No		Yes		No		Yes	
Intercept	2.230	(0.010)**	0.148	(0.013)**	1.989	(0.009)**	0.420	(0.012)**
N	314996		314996		318267		188941	
R^2	0.02		0.38		0.02		0.35	

Note: Reference category: British-born whites, no qualification, Fulltime. Robust standard errors reported. All specifications include year and quarter dummies; w stands for white.

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