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# Labour market performance of immigrants in the UK labour market

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## Executive summary

This document is a report commissioned by the Home Office to analyse the performance of immigrants in the UK labour market. It attempts to draw a comprehensive picture of the labour market performance of immigrants, and the process of adaptation relative to the UK-born white population. Four indicators of economic performance are investigated: (i) employment, (ii) labour force participation, (iii) self-employment, and (iv) wages. The analysis distinguishes between males and females, and between groups of different origin. The effects of specific variables on these outcomes are investigated in detail. The report also considers labour market outcomes of ethnic minority individuals who are born in the UK, and compares their outcomes with those of UK-born white individuals, and of ethnic minority individuals who are foreign-born.

The report commences in Chapter 2 with explaining briefly the underlying theoretical framework, and the statistical methodologies used for the various parts of the analysis. In addition, a brief survey of the previous literature that investigates issues addressed in this report for the UK is provided. It ends with a description of the the main data source used in this survey, the British Labour Force Survey (LFS).

Chapter 3 uses data from the LFS over the period from 1979 to 2000 to describe basic features of the foreign-born population in the UK, their allocation to different labour market segments, how their employment and participation probabilities have changed over time, and compares these outcomes to those of UK-born whites. The main findings can be summarised as follows:

- About one third of all working age immigrants have arrived over the last 10 years. The composition of new arrivals over the last half century has changed considerably, with many of the recent arrivals coming from European Union (EU) countries, and non-EU European countries.
- In the year 2000, foreign-born individuals constituted about 9 percent of the working-age population in the UK. On average, immigrants had spent 19 years in the UK in 2000, but there were large differences across the different origin groups.

- Many immigrants arrive at a very young age: of the working age population in 2000, about 30 percent had arrived before the age of 16.
- The immigrant community as a whole is well educated. In 2000, 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 2000, nine percent of British born whites of working age lived in London, compared with 40 percent of the foreign-born, and 45 percent of UK-born ethnic minorities. The concentration of foreign-born individuals in London increased between 1979 and 2000.
- 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 UK-born white individuals. Females from the Bangladeshi and Pakistani communities have the lowest participation rates among ethnic minority individuals.
- Industrial concentration differs quite substantially across immigrant communities.

Chapter 4 investigates the economic performance of foreign-born individuals, in comparison to UK-born whites, distinguishing between employment, participation, self-employment, and wages. The analysis distinguishes between different origin groups, and males and females. The analysis is conducted both with and without consideration of the role of socio-economic characteristics and regional distribution.

- Comparing white UK-born individuals with immigrants of the same age, education, other measurable characteristics, and geographical distribution, we find that white immigrants have similar employment probabilities to UK-born whites. Minority immigrants have on average lower employment probabilities, with Pakistanis, Black Africans, 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 UK-born whites, while others (predominantly some non-white minority communities) have substantially lower participation probabilities, even if we allow for differences in socio-economic characteristics and regional distribution. Pakistanis and Bangladeshis are among those with lowest participation probabilities.
- Self-employed immigrants are strongly concentrated in some sectors. Concentration differs according to origin. One out of two self-employed immigrants from the ethnic minority communities is active in the Distribution, Hotel and Restaurant sector (compared to one in six in the UK-born white population). White immigrants are concentrated in both the construction sector, and the distribution, hotel and restaurant sector. Compared to UK-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 West Africans are less likely to be self-employed, compared to white UK-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 UK-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.

Chapter 5 investigates the relative change in the economic outcomes of immigrants relative to UK-born whites over the immigration cycle, considering socio-economic characteristics. We distinguish between four groups: ethnic minority immigrants, immigrants from Ireland or the EU, white immigrants from Old Commonwealth countries, and white immigrants from New Commonwealth countries.

- Employment and participation probabilities for white immigrants remain relatively sta-

ble over the migration cycle, compared to British born whites. Employment and participation probabilities of minority immigrants are initially substantially lower than those of UK-born whites, but there is adaptation. We estimate that after about 20 years of residence, participation and employment probabilities are similar to those of UK-born whites. Differences for females from ethnic minority communities are much more pronounced. Female immigrants do not appear to reach parity of participation rates with white UK-born individuals no matter how long they have been resident in Britain.

- Self-employment probabilities increase for all groups after arrival, relative to UK-born whites. Ethnic minority immigrants and individuals from the Irish community/EU are more likely to be self-employed than UK-born whites after about five years after arrival.
- Our estimated wage differences relative to UK-born whites conditional on length of residence are quite unstable, mainly due to the relatively small numbers of observations. Overall, wages of white immigrants seem to vary little with length of residence relative to UK-born whites. Wages of minority individuals seem to converge slightly to those of UK-born whites as length of residence increases.

Drawing on existing literature, Chapter 6 investigates differences in language proficiency across immigrant groups from ethnic minority communities, the way language relates to observable characteristics, and the association between language and economic outcomes. It also investigates wage differences of immigrants between the public and the private sector, and compares them with those of UK-born white workers.

- There is considerable variation in language proficiency across the various minority immigrant groups. Bangladeshis and Pakistanis have the lowest proficiency in the English language.
- Language proficiency improves with time of residence, is higher for the more educated, and is higher the lower the age at which the immigrant entered the country.
- Language fluency is strongly and positively associated with the probability to be employed, and with wages. Language proficiency is likely to reduce the gap between

UK-born whites and minority immigrants considerably.

- The wage differential between immigrant men and white UK-born men is smaller in the public sector than in the private sector.

Chapter 7 compares economic outcomes of ethnic minority individuals born in the UK with those of UK-born whites, and foreign-born individuals of the same ethnic community.

- For males, there is some improvement of UK-born ethnic minorities in terms of employment and participation probabilities, relative to minority immigrants. However, British born ethnic minority individuals from most minority communities are still less likely to be employed, or to participate in the labour market, relative to their white peers. For females, UK-born ethnic minority individuals have improved their relative employment and participation probabilities substantially, compared to immigrants of the same ethnic origin.
- Wages of UK-born minority individuals are more similar to those of their white peers, compared to minority immigrants of the same origin. There are still wage penalties for some ethnic groups. Most disadvantaged seem to be Black African UK-born individuals, who have, on average, around 20 percent lower wages than their white peers (with similar numbers for females).

# 1 Introduction

*Motivation:* According to the Labour Force Survey, some 4.5 million individuals living in Britain in the year 2000, 9% of the population, were born in another country. Many of these individuals of foreign origin work, and contribute to economic prosperity and well-being. Due to differences in education, demographic structure, culture, and skills, foreign-born individuals may have advantages in some labour market segments, but disadvantages in others. Over time, they may adjust in many respects to their UK-born peers, due to accumulation of skills, collection of information, and adoption of new habits. To understand how labour market performance of immigrants differs from UK-born, and from each other, how these differences relate to observed characteristics, and how they change over time is an important pre-requisite for migration policy. While adaptation and labour market performance of immigrant populations have been subject of intensive research in the US, Canada, Australia, and also in some European countries, relatively little is known about the absolute and relative performance of the immigrant community living in Britain. This report will fill some of these gaps.

*Aims and Objectives:* We use the British Labour Force Survey (LFS) for the years 1979-2000 to provide a comprehensive picture of different aspects of labour market performance of immigrants in the UK. We define an immigrant as an individual who is born outside the UK. We investigate four different performance indicators: (i) Labour force participation, (ii) employment, (iii) wages, and (iv) self-employment. Our comparison group are white UK-born individuals.

We not only compare immigrants to UK-born individuals, but, where possible and meaningful, we distinguish between immigrants of different origin. We also compare the performance of immigrants to that of UK-born workers with the same individual and labour market characteristics. Thus, we do not only provide answers to questions like “What is the difference in wages between an average male immigrant and an average male white UK-born”, but also to questions like “What is the difference in wages between a male immigrant, and a UK-born white who are identical in their education, age, other demographic characteristics,

and choice of residence area?”

Our analysis considers not only males, but also females. Different traditions, religions, and culture may lead to behaviour of female immigrants which leads to labour market outcomes that are more distinct from their UK-born peers than those of male immigrants.

Differences between immigrants and UK-born individuals may change while immigrants reside in the host country. We investigate the way immigrants adapt to or diverge from UK-born individuals in the host country labour market over their migration history. This allows us to answer questions like “What is the difference in immigrants’ wages, compared to UK-born individuals, upon entry to the host country? And how has this difference changed after 10 years of residence?”

We investigate a number of important additional issues, like the relationship between language proficiency and economic performance, and whether there is a public sector premium for immigrants, which is different from that of UK-born individuals.

The process of adaptation may span more than one generation. An important question is whether and to what extent any disadvantages that the parent generation experiences are transmitted to the offspring’s generation. In the UK around one million individuals (according to the LFS) of working-age belong to an ethnic minority, but have been born in Britain. The economic performance of children of immigrants, relative to their forebears and their white UK-born peers is an area where little research has been done (see Card, DiNardo and Estes 2000 for an interesting analysis for the US). We shall attempt an assessment of how well UK-born minority individuals are doing in the labour market relative to their forebears and relative to their UK-born white peers.

*Methodology:* To investigate the relationship between individual characteristics, like education, age, and time of residence, we use regression analysis. Comparisons between immigrants and UK-born individuals will likewise be based on underlying regression models. 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 UK-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 UK-born white females, and female immigrants *who are working*, but not between UK-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 report.

*Key Limitations of the data analysis:* A problem with analysing individuals who constitute a minority is that representation in surveys is small, so rendering results imprecise. This is particularly the case when investigating wages, which have not been reported in every wave of the LFS.

*Policy Relevance:* The main objective of this report is to inform the debate about the economic performance of Britain's immigrant communities, using the latest available data sources. The results of this study may inform policy makers about which particular immigrant groups are most disadvantaged, and which groups are more successful. The study identifies specific areas that should be investigated in more detail in future research.

*Structure of the report:* We commence our analysis by providing background information, including the theory and methodology underlying our approaches, brief review of the previous literature for the UK, and our main data source. We then provide descriptive information on the composition of immigrants in the UK, 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 UK-born whites (Chapter 4) of same age, origin, and other background characteristics. In addition, we study the process of adaptation of immigrants to UK-born whites. In Chapter 6 we look at the determinants of language proficiency, and how language is associated with economic outcomes, drawing on other recent research. We also analyse wage differentials between employees in the public and the private sectors. Finally, in Chapter 7 we analyse ethnic minority individuals who are born in the UK, and compare them to immigrant of the same ethnic origin, and to white UK-born individuals.

## 2 Background

### Theory and methodology

When immigrants arrive in the destination country, their labour market productivity is likely to be different from that of UK-born individuals. This may be because of different levels of education, socio-economic characteristics, and different demographic composition. But even if we compare an immigrant with a UK-born of the same education and age, we may find that the immigrant differs in labour market outcomes, like wages and participation. One important reason is that the skills immigrants have acquired in their home country are often not directly transferable to the host economy. For example, a mechanic in Kosovo may have acquired skills valuable for performing well in his job in his home country (like building parts for a car from scratch), but less relevant in the UK; on the other side, he may lack skills that are important for performing this occupation in the UK (like using electronic equipment for car maintenance). There are also more general skills immigrants may lack immediately after arrival in the host country - like fluency in the host country language.

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 UK-born peers.

Differences in demographics, education, or skills may not be the only reason why immigrants differ in their labour market outcomes from UK-born individuals. Upon arrival, and when given the choice, immigrants may settle in those areas that are economically most prosperous, and offer the highest wages. As a consequence, when we compare immigrants with UK-born individuals, this selective settlement may lead, on average, to more favourable labour market outcomes of immigrants than of UK-born individuals. It may underestimate the differences in economic outcomes between UK-born individuals and immigrants we would obtain if immigrants were allocated to areas in the same way as UK-born individuals.

To analyse the differences and the similarities between UK-born individuals and immigrants, we analyse micro data, using econometric and statistical techniques. The data is

survey based, where individuals are asked about a large array of socio-economic characteristics and labour market outcomes, as well as information about country of birth, and ethnic affiliation.

From this data, we can compute labour market performance indicators, and compare them between different groups. To obtain, for instance, the labour force participation rate of white UK-born individuals, we simply compute the average of individuals participating in a particular year. We can do the same for immigrants, and compare the two numbers. What we obtain is an estimate for the difference in participation rates between an average white UK-born individual, and an average foreign-born individual, for a particular year.

We may also want to compute differences between a UK-born, and a foreign-born individual of, for instance, the same age and education. To achieve this, we compute averages, as before, but conditional on years of education, and age. We do this by using regression analysis. This technique can be used to adjust for differences in other measurable characteristics, like regional distribution.

To compute changes in the relative economic position of an immigrant over the migration cycle, we need to make some assumptions about the adjustment process. The standard assumption is that the time of residence in the host country can be used as a measure for the acquisition and transformation of skills. Based on information about the time the immigrant has spent in the host country, we can use the techniques explained above, and compute the difference in outcomes between a UK-born individual and an immigrant at different stages of the migration cycle.

The resulting measure for adaptation may be misleading, however. Suppose that the type of immigrants entering the UK changes over time, and assume that more recent cohorts are more productive, even conditional on education. Now suppose we compute the process of adaptation of immigrants, using data for only one year, by comparing immigrants who have been in the UK for 10 years to immigrants who have just arrived. If the new arrivals are more productive than immigrants who arrived 10 years earlier, then this comparison leads to an underestimate of the speed of adjustment. This problem can be dealt with when multiple years of observations are available, and we will address it in our analysis below.



Another problem which may compromise the resulting measure of adaptation is selective out-migration. Not all immigrants remain in the host country; in fact, there is evidence that out-migration is very substantial (see Dustmann 1997). Suppose now that it is the "better" immigrants who out-migrate some years after arrival. Suppose further that we observe the same cohort of immigrants at arrival, and 10 years later, so that cohort effects can be successfully eliminated. Still, a comparison of entry outcomes of the immigrant population with outcomes 10 years later is misleading, as the best individuals have left after 10 years, and the average outcome of the same cohort after 10 years is lower than it would have been if the returners had been included. Thus, this leads to an underestimate of the economic adjustment. This problem is not easily resolved; in fact without information about out-migration, the problem of selective return migration cannot be solved. As we discuss below, it is likely to explain some of the patterns we observe in our data.

If we compare now some performance indicators between an immigrant and a UK-born individual of the same age and education, the interpretation is conditional on the population to which it refers. For instance, when comparing average wages between immigrants and UK-born individuals, these wages are computed from data on individuals who are in work. Accordingly, the wage difference we compute is the difference in wages between immigrants and UK-born individuals who work. This parameter may be different from the difference in wages between an average immigrant, and an average UK-born individual of working age. The reason is that those who are employed may be selected from the overall population, even given observable characteristics like education and age. The processes of selection may differ, in addition, between migrants and UK-born individuals. The parameter we report here always refers to individuals who happen to be in the respective state (say working). To compute parameters for the overall population is very involved, requires strong assumptions, and is beyond the scope of this report.

## **Previous literature**

Not much work exists on the economic performance of immigrants in the UK, and most existing contributions have been written over the last five years only. We briefly survey the

recent literature on UK data.

*Employment and Participation:* The early literature in the UK on employment and participation differentials compares outcomes of whites with those of ethnic minorities. Distinctions between immigrant and UK-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 UK-born minorities. They find no evidence that the latter perform worse than white UK-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 UK-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 UK-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 (2002) find that minority immigrants have lower employment probabilities compared to white UK-born individuals and minority UK-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.

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

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 the UK 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 UK-born individuals, but no wage gap between white UK-born individuals and white immigrants. Dustmann and Fabbri (2002) 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 UK-born individuals. This initial gap decreases slightly, but does not close.

*Self-Employment:* Work on self-employment of immigrants is scarce. For the US, Borjas (1986) analyses self-employment probabilities for immigrants and UK-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 UK-born individuals. They also find that ethnic concentration affects self-employment rates negatively - which contrasts with findings by Borjas (1986).

*Language:* Few studies in the UK analyse the determinants of immigrants' language fluency, and the effect of language on economic outcomes. Using the FNSEM, Shields and Wheatley Price (2002) find that higher education levels are associated with higher degrees of language proficiency, and that longer migration duration positively affects language fluency. Analysing the occupational success of non-white immigrants, they find that immigrants who are fluent in English language have, on average, wages about 20 per cent higher than non-fluent individuals. Dustmann and Fabbri (2002) find analogous results using both the FNSEM and the FWLS. The latter survey distinguishes between different language skills (spoken, read and written English). They find that education is more important for reading and writing

proficiency. This reflects the fact that acquisition of reading and writing abilities require a more systematic way of learning.

Dustmann and Fabbri (2002) find also a positive relationship between language and employment or earnings. As has been pointed out in work by Dustmann and van Soest (2001), this relationship does not necessarily indicate a causal effect of language on earnings. One reason is that unobserved characteristics of the individual that have a positive effect on labour market performance do at the same time affect language proficiency positively. Another reason is that self-reported language measures suffer from large measurement error (see Dustmann and van Soest 2001). Both these problems lead to bias in the estimate of an effect of language on outcomes. Dustmann and Fabbri use appropriate econometric techniques to deal with these problems. Their findings indicate that the effect of language on outcomes is larger than indicated by simple regression analysis. We report results from this analysis below.

## **The Labour Force Survey**

The Labour Force Survey (LFS) is a continuous household survey, conducted by the Office for National Statistics (ONS), which provides a wide range of data on labour market statistics and related topics such as training, qualifications, income and disability. The data from the survey are used extensively both within and outside government. The LFS has been running since Spring 1992 in its present form although a LFS has been carried out in the UK 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 the UK

#### Composition and arrival

Figure 3.1 outlines the historical pattern of immigration into Britain, using data taken from the 2000 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 are recent arrivals. Around 8 per cent of all immigrants had arrived within the last year, and around one third had arrived within the last ten years.

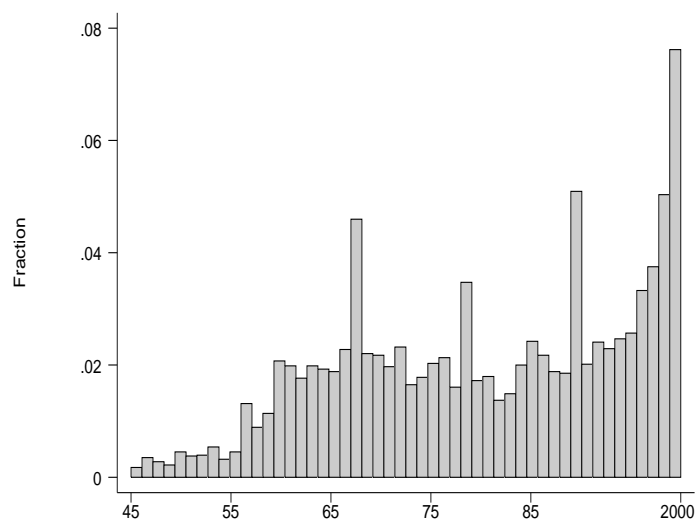


Figure 3.1: Distribution of immigrants by year of entry

Figure 3.2 charts the year of arrival of immigrant groups from different origin countries. Immigration flows immediately after the war were dominated by individuals arriving from the Caribbean and from Ireland. Immigration in the 1960s and 1970s was dominated by arrivals from India and Pakistan, though around 10% of immigrants in the 1970s came from countries which now comprise the European Union. Most of the Bangladeshi immigrant community arrived in the 1980s. During the same time, many immigrants arrived from the European Union and the Old Commonwealth countries (including the USA). Over the last decade, around 10% of immigrants originated in sub-Saharan Africa, with the European Union continuing to supply the majority, (around 18%) of immigrants. There is now more

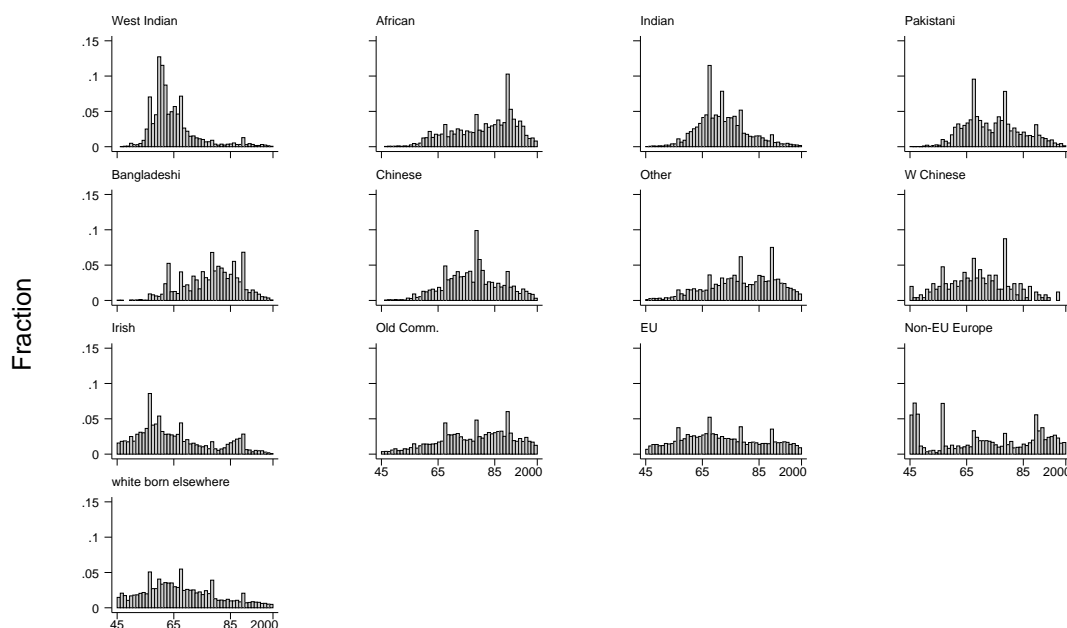


Figure 3.2: Year of arrival by origin status

diversity in the country of origin of immigrants than in the past.<sup>1</sup>

### Characteristics of immigrants and UK-born individuals

In Table 3.1, we highlight some simple facts about the various minority groups in Britain. The numbers are taken from the 1979, 1983, and 2000 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).

In the first three columns of the table, we report figures for British-born whites, British-born non-whites (who are almost certainly second or third generation immigrants of non-white ethnic origin), and individuals who are foreign-born. The next columns split the foreign-born into groups of various origins.

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<sup>1</sup>See Hatton and Wheatley Price (2002) for an excellent survey of the recent history of immigration into the UK.

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

	Year	UK-born white	UK-born non-white	Immigrants	West Indian	African	Indian	Pakistani	Bangladeshi	Chinese	Other non-white	Irish	Old Comm.	EU	Non-EU	Other white
% of pop.	1979	92.2	0.5	7.3	0.7	0.3	1.2	0.4	0.1	0.2	0.6	1.4	0.4	1	0.4	0.9
	2000	88.3	2.4	9.3	0.4	0.6	1.2	0.7	0.3	0.2	1.2	0.8	0.8	1.4	0.4	1.3
Med. Age	1979	36	19	37	39	30	33	31	37	29	31	42	34	40	53	35
	2000	39	27	38	46	35	43	37	33	37	37	47	34	33	32	39
Med. yrs here	1983	–	–	18	22	11	14	14	10	8	10	26	11	21	35	22
	2000	–	–	19	34	9	25	20	16	14	12	32	11	16	5	28
Med. entry age	2000	–	–	20	16	24	19	19	17	22	23	18	23	19	22	11
% arrive < age15	2000	–	–	34	46	14	30	37	46	25	22	32	33	37	17	57
% grad.(men)	1983	10	3	15	4	20	16	8	11	14	27	5	36	16	11	21
	2000	16	18	21	5	33	23	12	7	31	23	15	26	20	11	32
% No quals.	1983	46	35	47	65	10	42	67	85	47	23	72	22	40	61	30
	2000	14	13	16	38	9	16	35	41	21	12	25	5	9	16	8
% grad.(fem)	1983	4	2	9	1	7	9	4	2	9	13	3	26	10	16	13
	2000	12	16	16	10	12	14	6	6	23	14	14	26	16	14	25
% No quals.	1983	51	31	49	58	38	57	75	91	47	38	61	16	43	50	33
	2000	19	11	19	21	17	28	52	55	15	15	26	5	8	8	10
% in London	1979	10	46	34	60	64	46	17	52	38	57	34	28	29	28	28
	2000	9	45	42	61	73	46	23	62	49	67	34	37	31	56	33
% marry same	1979	99	33	91	82	81	90	94	98	80	57	99	97	98	99	98
	2000	99	58	89	66	74	89	93	98	72	66	98	96	96	95	97

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

The immigration flows outlined in Figures 3.1 and 3.2 have shaped the demographic patterns observed in Table 3.1. In 1979, around 7% of the working-age population were born outside Britain. The largest immigrant community in Britain in 1979 were those of Irish origin, some 1.4% of the population, or around 0.6 million individuals. Next came members of the Indian and European Union communities, each accounting for around 1% of the working age population, around 400,000 people.

By the year 2000, the total immigrant stock had risen to around 9% of the working age population. The largest immigrant group were now individuals born elsewhere in the European Union (outside Ireland), at around 1.4 % of the population, followed by immigrants from India. The shares of immigrants from sub-Saharan Africa, Pakistan, Bangladesh and the Old Commonwealth countries of Australia, New Zealand and the USA, all grew over this period, whilst the shares of immigrants from the Caribbean and Ireland fell. Notice that the change in the composition of the immigrant population of working age was not only due to immigration and demographic developments, but may also have been due to return migration.

The median age of the immigrant population is very similar to that of UK-born whites in both 1979 and 2000. The median age of UK-born ethnic minorities is much lower, which is explained by the immigration patterns of the foreign-born ethnic minority individuals. This population ages considerably between 1979 and 2000.

Information on the year of arrival is not available for the 1979 LFS. The first year for which this information was recorded is 1983. 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 2000. The average immigrant had already spent around 18 years in Britain in 1983 and around 19 years by 2000. 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 have been in the UK the longest, around 34 years on average in 2000. They are followed by the Irish and Indian communities, with 32 and 25 years of residence in 2000 respectively. The most recent immigrants, on average, now come from European countries currently outside the European



Union.

We report in the next panel the age at which immigrants enter the UK. The numbers show that the median age of arrival of the working-age population residing in Britain in the year 2000 was around 20. Again, there is large variation across the various immigrant groups that we identify. Looking at the distribution of age at entry, we find that 90% of immigrants resident in the year 2000 came to Britain before the age of 30. Around one third of all immigrants arrive as children, (according to the LFS in 2000). Again there is considerable heterogeneity across the different groups. Nearly half of all Caribbean and Bangladeshi immigrants arrived as children, compared with less than a fifth of immigrants from black Africa and non-EU Europe. With the exception of the whites born elsewhere group, the fraction of child immigrants has risen over time, presumably, in part, because the families of original immigrants become eligible for settlement.

We report in the second column of the table respective numbers of ethnic minority individuals who are born in the UK. While only 0.5 percent of the working-age population in the UK were non-white UK-born in 1979, this number has risen to 2.4 percent 20 years later. This is about half of all ethnic minority individuals in Britain (some 800,000 people).

The historical pattern of immigration shapes the relative numbers of UK-born across the various ethnic minorities. Figure 3.3 graphs the distribution of the various immigrant communities by age. Since the West Indian community has been in Britain the longest, the age distribution is skewed to the right, with correspondingly fewer arrivals now in their teens or twenties. In contrast the age profiles of African and Bangladeshi immigrants are skewed to the left, with much higher concentrations of individuals in the younger age range, reflecting the more recent entry into Britain. The age profiles of European Union immigrants resemble that of UK-born whites most closely.

Table 3.1 also outlines the differential levels of educational attainment between immigrants, white UK-born individuals, and ethnic minority UK-born individuals, and across immigrant groups. It is apparent that the immigrant community as a whole is generally more educated than UK-born whites. Among males, in 1983, only 10 percent of UK-born whites had graduated, while this is the case for 15 percent of the immigrant population.

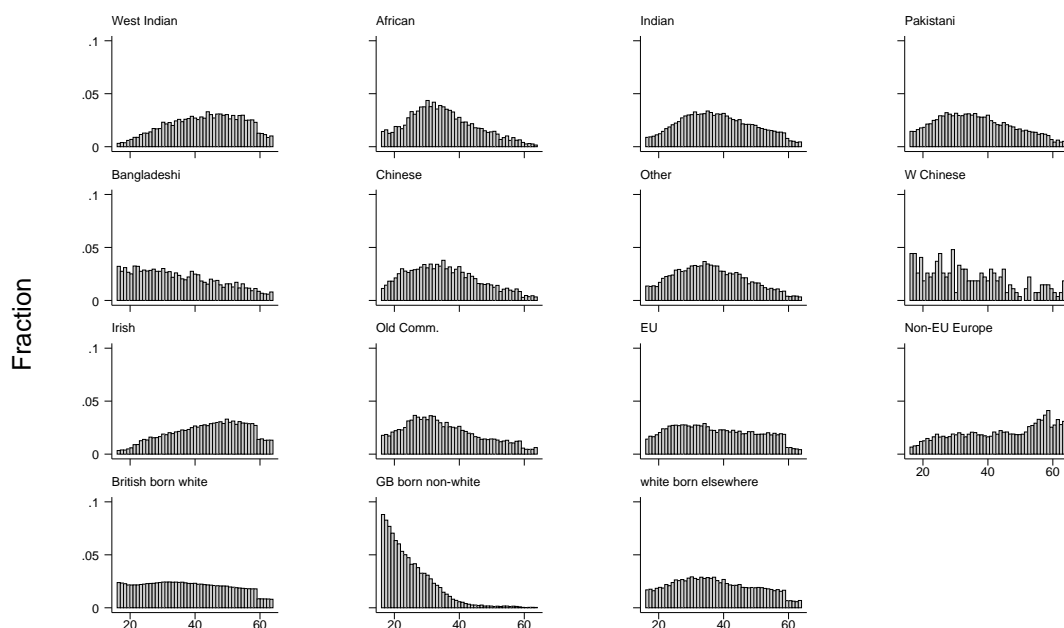


Figure 3.3: Distribution of immigrants by age

By 2000, the percentage of graduates in the UK-born white population had increased to 16 percent, and to 21 percent in the immigrant population. At the lower end of the education distribution, the relative numbers are quite similar: 46 and 47 percent of the UK-born white, and the foreign-born population had no educational qualification in 1983; these numbers have dramatically decreased for both populations, to 14 and 16 percent respectively. This indicates a significant improvement in the lower end of the skill distribution of immigrants to the UK.

When we investigate educational attainment for male immigrants for 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 side, there are stark differences in the percentages of graduates, according to country of birth. While, for instance, only 4 (5) percent of individuals from the West Indies had graduated in 1983 (2000), 36 (26) percent of immigrants from Old Commonwealth countries (including the US) had a degree.

The black African, Indian and Chinese groups contain many more graduates than UK-born whites and a correspondingly lower share of those with no qualifications. In 2000, around one third of the African and Chinese immigrant population living in Britain had a degree, compared to sixteen per cent of UK-born whites. In contrast, the West Indian, Pakistani, and particularly, the Bangladeshi communities contained fewer graduates than the national average and many more individuals with no formal qualifications.

In 2000, around 40% of all Bangladeshis had no formal qualifications, compared to 14 per cent of UK-born whites and 9 per cent of those in the black African group. Whilst the West Indian immigrant community does relatively badly in terms of educational attainment, it is the only ethnic group, including UK-born whites, where women do better than men. The proportion of female West Indian women with a degree is close to the national average and the share of West Indian women with no qualifications is below the national average. In contrast, 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, as well as the UK-born non-whites, in the capital. In 2000, London contained around 9% of the total population, but more than 40% of all immigrants, and 45% of UK-born ethnic minorities!

Comparing 2000 to 1979, the geographic concentration in the capital appears to have increased. Only the Pakistani, Irish and European groups are less concentrated in the capital, though members of these groups are still more than twice as likely to live in the capital compared to UK-born whites.

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/immigrant group. Around 10% of immigrants have married outside

their ethnic group. It is apparent that marriage across ethnic lines is much more common amongst UK-born ethnic minority individuals, nearly half of whom, if in a relationship, are married or cohabiting with someone from a different ethnic group. Amongst immigrants, marriage or cohabitation with someone from outside the immigrant/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 UK-born white British and the foreign-born. We distinguish between non-British-born whites and non-UK-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 currently unemployed, but seeking 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 UK-born white individuals. Foreign-born whites are very similar to the UK-born whites. Differences are similar for females and for males. 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 UK-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.

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,

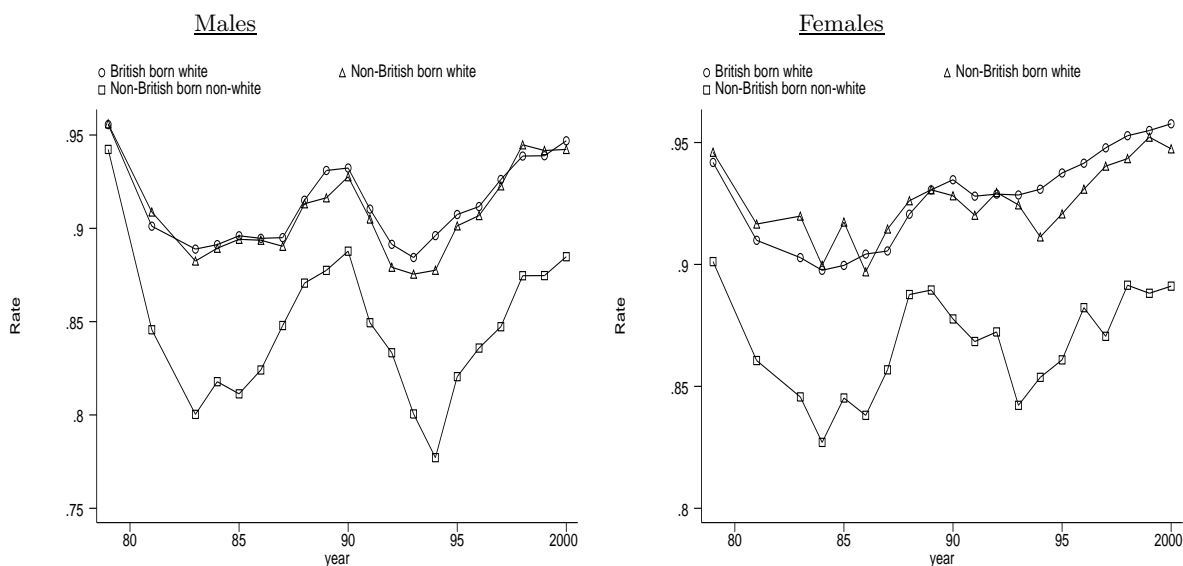


Figure 3.4: Employment rates, UK-born whites and immigrants, 1979-2000

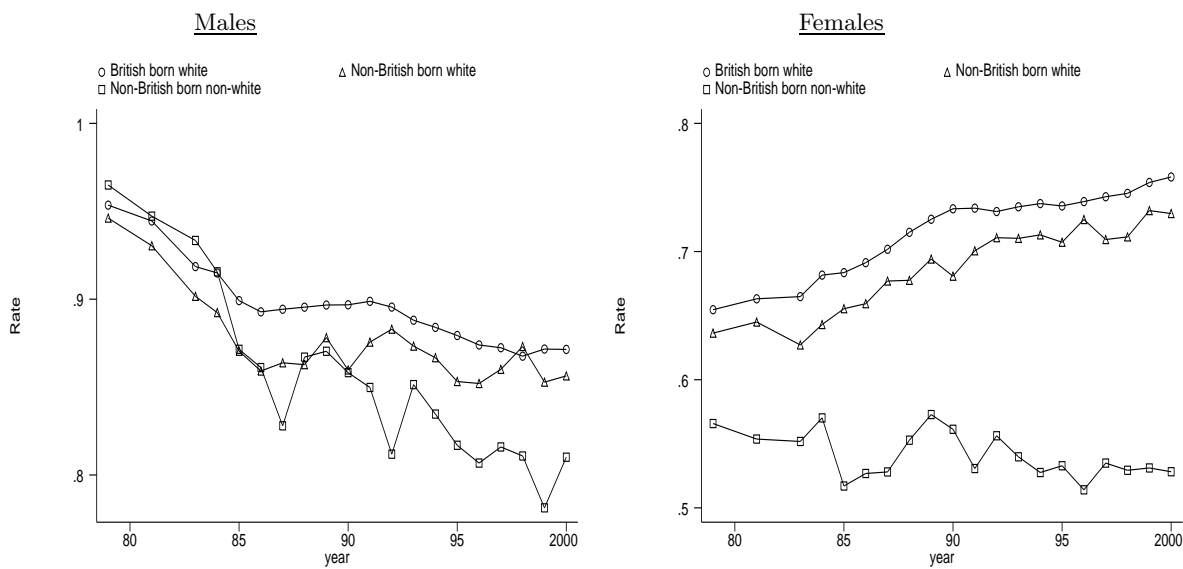


Figure 3.5: Participation rates, UK-born whites and immigrants, 1979-2000

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 UK-born whites. 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 20 years. These averages may be shaped by the changing composition of the immigrant population over time and conceal large differences across different groups.

Table 3.2: Employment and participation rates of UK-born whites and immigrants 1979-2000

	UK-born white	West Indian	African	Indian	Pakistani	Bangladeshi	Chinese	Other
<b>Men</b>								
	<b>Employment</b>							
79	96	95	91	95	91	99	100	94
84	89	78	77	87	68	65	96	90
90	93	89	86	91	85	75	84	89
93	88	76	61	87	71	72	93	83
2000	95	83	89	93	87	81	95	85
	<b>Participation</b>							
79	95	96	98	96	97	93	99	95
84	92	91	90	92	89	92	91	93
90	91	84	77	93	86	77	92	86
93	89	85	81	89	82	74	87	85
2000	88	74	80	84	76	73	77	76
<b>Women</b>								
	<b>Employment</b>							
79	94	91	88	91	70	65	98	91
84	90	86	66	82	71	41	87	86
90	93	89	80	88	79	89	94	87
93	93	90	73	90	68	47	86	81
2000	96	86	86	92	83	66	96	90
	<b>Participation</b>							
79	66	78	74	58	16	25	53	51
84	68	77	62	62	19	10	69	58
90	74	77	62	65	28	15	65	63
93	74	67	60	64	22	21	53	63
2000	76	74	60	61	24	20	59	54

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

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 Bangladeshis and Pakistanis, are lower than among others.

This difference between the Pakistani and Bangladeshi communities on the one side, and white UK-born individuals and other communities, on the other, is most dramatic for females. Less than one in four females participates in the labour market in most years. Furthermore, of those who do participate, Pakistanis and Bangladeshis have the lowest employment 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 below, where we condition on individual characteristics, thereby adjusting for differences in socio-economic characteristics between the various immigrant groups, and white and non-white UK-born individuals.

We first provide some descriptive information on immigrants' economic activity in the UK. We consider occupational status of immigrants, and compare it to that of UK-born whites and ethnic minorities. Again, we look at these features at two points in time: 1979 and 2000. 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 in each group who are classified as self-employed. There are, on average, more immigrant males working in self-employment relative to UK-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, Pakistani, Chinese, Irish and other European communities.

The self-employment share amongst the Irish may be explained by the concentration of men working in the construction sector, where sub-contracting is commonplace, whilst the higher shares of self-employment amongst the former groups may be explained by a high concentration of workers in the retail and restaurant sectors. We investigate these issues in some more detail below.

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 Bangladeshi and Pakistani communities work part-time. Part-time working amongst women in these groups is also the highest of any other immigrant or UK-born group.

Temporary working amongst employees appears highest among workers from the Old Commonwealth and Europe outside the European Union, though this, in part, may be explained by visa restrictions on working for citizens of these countries.

The next two panels investigate sector allocation of the foreign-born and UK-born individuals. Between 1979 and 2000, there is a remarkable increase of foreign-born individuals in the finance sector, in the health sector, and in retail and hotel/restaurant sectors. Relative to UK-born individuals, immigrant shares increased most in the health sector.

The allocation to sectors differs quite substantially across origin groups. In 2000, more than half of all Bangladeshi men in employment work in the hotel and restaurant sector, compared with just 4% of UK-born whites. A large percentage of individuals from the old Commonwealth or Europe work in the finance sector. Eight percent of the Indian or West Indian population, and 16 percent of male immigrants from Africa work in the health sector, compared to only 3 percent of the UK-born white population. As Table 3.4 illustrates, the percentage differences are even larger for females.

For 2000, 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.



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

	Year	UK-born white	UK-born non-white	Immigrants	West Indian	African	Indian	Pakistani	Bangladeshi	Chinese	Other Non-White	Irish	Old Comm.	EU	Non-EU	Other white
% self-emp:	1979	9	5	11	3	3	12	10	13	26	11	10	9	16	10	16
	2000	14	12	15	13	13	24	34	16	25	18	18	12	12	25	16
% part-time:	1979	0.5	2	1	0.5	1	0.2	1	3	2	2	1	0.5	2	1	1
	2000	4	7	10	5	11	5	15	21	7	9	3	4	5	15	5
% temp.	2000	5	8	10	8	15	7	8	7	15	13	6	14	13	12	8
	1979															
% manufact.		34	27	36	43	35	41	55	51	10	24	28	25	38	50	28
% constructn.		10	7	9	9	2	4	1	N/a	1	3	26	6	5	7	5
% transport		8	2	8	14	14	10	11	4	2	6	8	6	6	6	7
% retail		8	13	8	4	9	15	8	10	7	9	5	7	8	6	8
% hotel/rest.		1	3	5	1	5	1	2	19	57	6	2	1	14	2	7
% finance		4	5	3	1	4	3	4	N/a	10	6	2	2	3	2	6
% education		3	2	2	1	3	1	1	N/a	2	5	1	9	2	4	3
% health		2	3	3	2	5	5	2	7	5	9	2	4	3	2	3
	2000															
% manufact.		24	17	17	29	9	20	22	12	8	14	12	14	21	17	13
% constructn.		13	6	7	12	1	6	2	1	2	3	26	4	5	10	6
% transport		10	12	11	15	13	14	27	5	5	12	14	7	8	5	8
% retail		6	12	8	5	9	16	12	7	2	8	5	3	5	10	5
% hotel/rest.		4	6	9	3	8	3	11	55	39	12	1	3	13	13	6
% finance		15	23	19	10	23	18	9	4	19	16	15	30	20	20	28
% education		4	3	4	1	3	2	1	3	8	5	4	7	7	9	5
% health		3	5	8	8	16	8	3	3	11	11	7	5	5	3	9
% public		16	14	16	18	29	12	9	7	18	19	18	22	12	10	18

Notes: All figures population weighted. Excludes those in full-time education. Figures 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	Pakistani	Bangladeshi	Chinese	Other Non-White	Irish	Old Comm.	EU	Non-EU	Other white
% self-emp:	1979	3	1	4	1	N/a	5.9	3.9	N/a	14.2	4.9	2.4	3.8	5.3	3.1	4.1
	2000	6	4	6	3	6	12	10	1	15	11	7	13	13	9	13
% part-time:	1979	38	15	33	26	28	16	24	N/a	23	30	50	24	36	36	32
	2000	39	27	35	24	31	26	48	43	30	26	29	23	27	31	31
% temp.	2000	7	8	12	7	15	10	17	12	11	11	7	19	13	19	12
	1979															
% manufact.		15	16	16	22	17	26	5	8	4	10	14	8	16	24	13
% retail		11	11	6	5	3	7	1	4	4	5	6	5	8	5	6
% hotel/rest.		3	5	4	2	3	1	N/a	4	23	2	5	4	6	2	4
% finance		4	3	3	2	1	2	1	N/a	7	3	2	6	3	2	5
% education		8	3	5	4	4	1	1	N/a	1	3	9	10	9	4	6
% health		6	3	10	21	26	6	1	N/a	7	10	11	10	8	2	7
	2000															
% manufact.		10	9	10	7	4	20	13	2	5	8	7	8	9	11	8
% retail		13	11	10	7	11	20	16	5	9	10	9	8	7	8	10
% hotel/rest.		5	4	5	1	6	3	6	13	23	8	3	3	9	5	3
% finance		16	24	18	18	17	14	15	19	15	15	15	29	19	16	23
% education		14	9	12	13	6	7	18	25	5	10	13	15	14	9	13
% health		20	17	23	41	37	19	19	26	22	26	32	17	15	18	20
% public		33	31	31	49	37	28	35	36	33	31	38	27	26	20	31

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

## Summary

The immigrant community has a higher overall share of graduates than UK-born whites, but there is also a higher share of immigrants with no formal qualifications. There is a diversity in labour market performance among immigrant minority groups. The Bangladeshi and Pakistani communities do relatively badly. The Chinese and Indian communities do relatively well. Over the economic cycle, employment and unemployment rates of men in all immigrant groups appear more volatile than those of UK-born whites, particularly amongst non-white immigrants.

Our simple descriptive analysis suggests that there are several factors regarding the relative labour market performance of immigrant minority individuals that are worthy of further attention. Can differential levels of educational attainment and regional dispersion explain some of the employment gaps we observe? Are there similar differences with respect to wages? UK-born ethnic minority individuals seem to have a better overall labour market performance, relative to those born abroad, but still do relatively worse than their UK-born peers. Do these effects prevail when we condition on other demographic characteristics? And how do performance indicators of immigrants change over the migration cycle? We analyse these issues in the next sections.

## 4 Economic performance of UK-born and foreign-born individuals

We have illustrated in the previous chapter that rates of employment, unemployment and economic activity differ substantially between foreign-born and UK-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 UK-born whites and the foreign-born may be explained by differences in individual characteristics. In this chapter, we address this issue.

Our prime focus is on two questions. First, how do different immigrant groups differ from UK-born whites, and how do 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. Second, how does the relative economic performance of immigrants change with time spent in the host country. Again, we use regression analysis, and information on the years of residence of each individual migrant available in the LFS to answer this question.

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 UK-born individuals. Finally, we look at wages. In most of 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 UK-born individuals, conditional and unconditional on regional and individual characteristics, as well as the relative patterns of adaptation. We use graphical presentations to present our results.

The period we consider in our analysis are the last eight years: 1992 to 2000. 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.

In our analysis, we are not able to distinguish between all possible origin countries, because numbers of observations would be too small. We therefore group some origin countries into larger geographical areas, which we consider as being similar with respect to factors affecting economic performance.

We distinguish between ethnic minority (non-white) and white immigrants. The first group contains Black Caribbeans, Black Africans, Indians, Pakistanis, Bangladeshis, African Asians, Chinese and other ethnic minorities. The second group are white individuals who were born in the Old Commonwealth (including South Africa), the New Commonwealth (including Pakistan), China, Ireland, European Union, other European countries (i.e. Eastern Europe, Turkey, Switzerland, Austria and Norway) and other countries.<sup>2</sup>

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 UK-born individual. The white UK-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 UK-born whites, and the 95 percent statistical confidence interval, represented by a vertical line. If the vertical line overlaps with the horizontal line, the difference between the respective immigrant group, and the UK-born white population is not statistically significant.

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 UK-born individuals. We therefore also report differences

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<sup>2</sup>See Appendix for details on geographical distribution and list of variables used in the analysis.

which compare an immigrant from a respective ethnic group with a white UK-born individual of the same age, education and regional distribution. These differences are reported in the right hand panels of the figures.

## 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 Indian, Caribbean, Pakistani, Black African, and Bangladeshi communities, have significantly lower employment probabilities than white immigrants, who are similar in this respect to the UK-born white population. Exceptions are white individuals from other European countries, who are predominantly from the former Eastern Bloc countries and Turkey.

In the upper right graph, we report results where we keep location choice and individual characteristics constant. We compare therefore male immigrants and white UK-born individuals with the same age and education, and who are located in the same region (first and second pairs of columns of Table 4.1). Coefficient estimates change slightly, and the differences to the white UK-born population widen for some origin groups.

One reason for the widening of the employment gap is that immigrants are predominantly located in regions which are economically very successful - as indicated in our descriptive chapter, 45 percent of the foreign-born are concentrated in London, while this is the case for only 9 percent of the UK-born population. When we condition on region, we eliminate the advantage immigrants have because of their regional distribution.<sup>3</sup> Another reason for

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<sup>3</sup>The regional dummies indicate that employment probabilities vary across regions. For males, and relative to Greater London, employment probabilities (conditional on individuals' characteristics) are highest in East

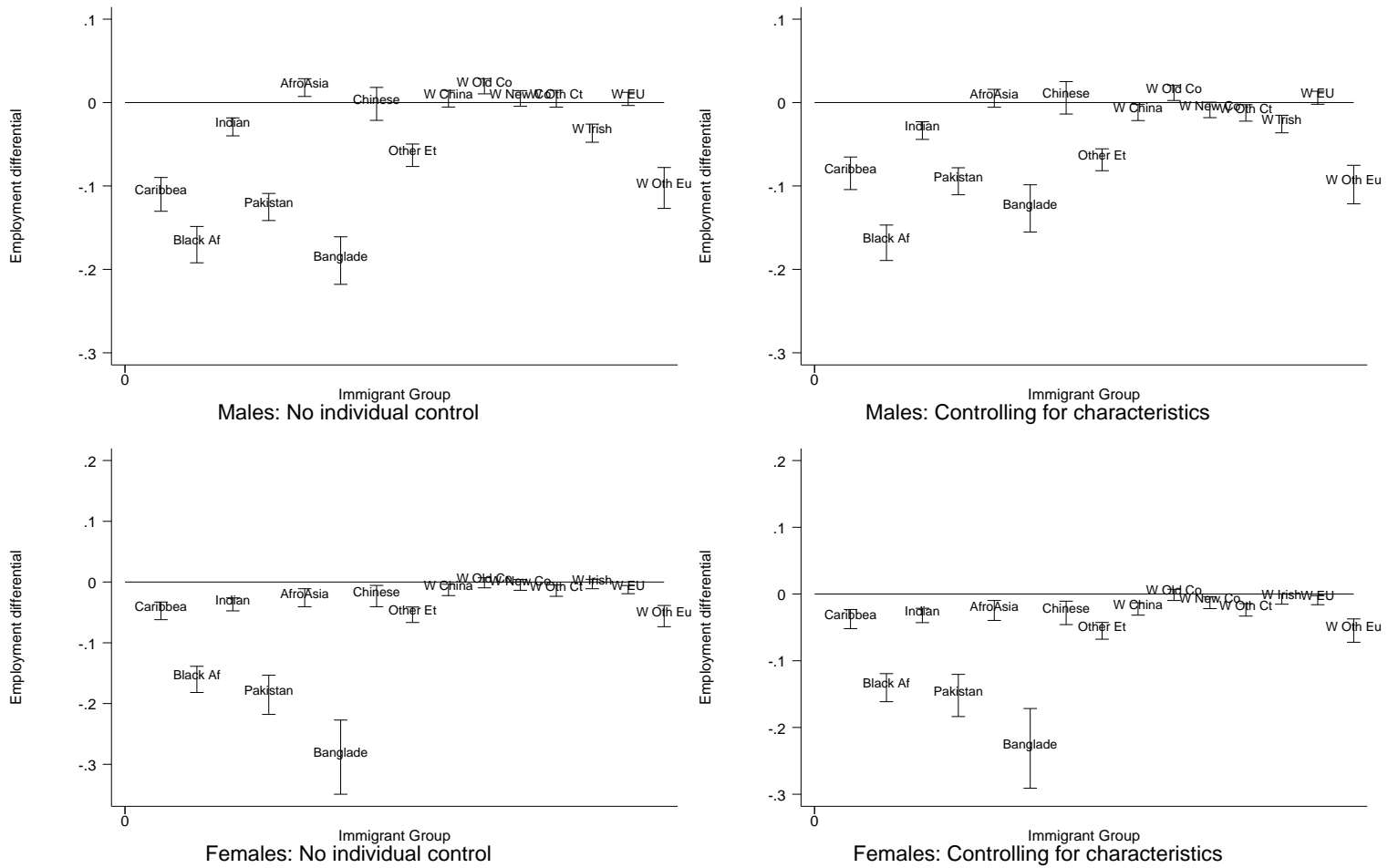


Figure 4.1: Employment differentials, 1<sup>st</sup> Generation immigrants and white UK-born individuals

the changes is the difference in the demographic structure between the immigrant and the UK-born population.

The figure indicates that some immigrant groups have a substantially lower probability to be employed, compared to white UK-born individuals. The three most disadvantaged groups are black Africans, Pakistanis, and Bangladeshis. On the other side, white immigrants, and immigrants from the Chinese and Afro-Asian communities have virtually identical employment probabilities to the white UK-born.

We report in the lower two panels results for females (results are reported in the third and fourth pairs of columns in Table 4.1). The picture which emerges is quite similar to that for males, but the divergence across the different groups is larger. Again, the most disadvantaged groups are Pakistanis, Bangladeshis, and individuals from the Black African communities; on the other hand, most white immigrants are very similar to UK-born whites.

## Participation

Above, we have investigated the probability of an individual to be in employment, given that he or she is looking for a job. In this chapter we 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 the reference category - are economically inactive.

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

For males, the conditional and unconditional participation probabilities are for nearly all immigrant groups significantly lower than for the UK-born white population. There is a significant change in differentials once we condition on region and individual characteristics. Many immigrant groups have participation probabilities which are about 10 percentage points

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Anglia and the South East (2.7% higher), and lowest in Merseyside (4.0% lower). For females, differences across regions are much smaller, and often not significant.



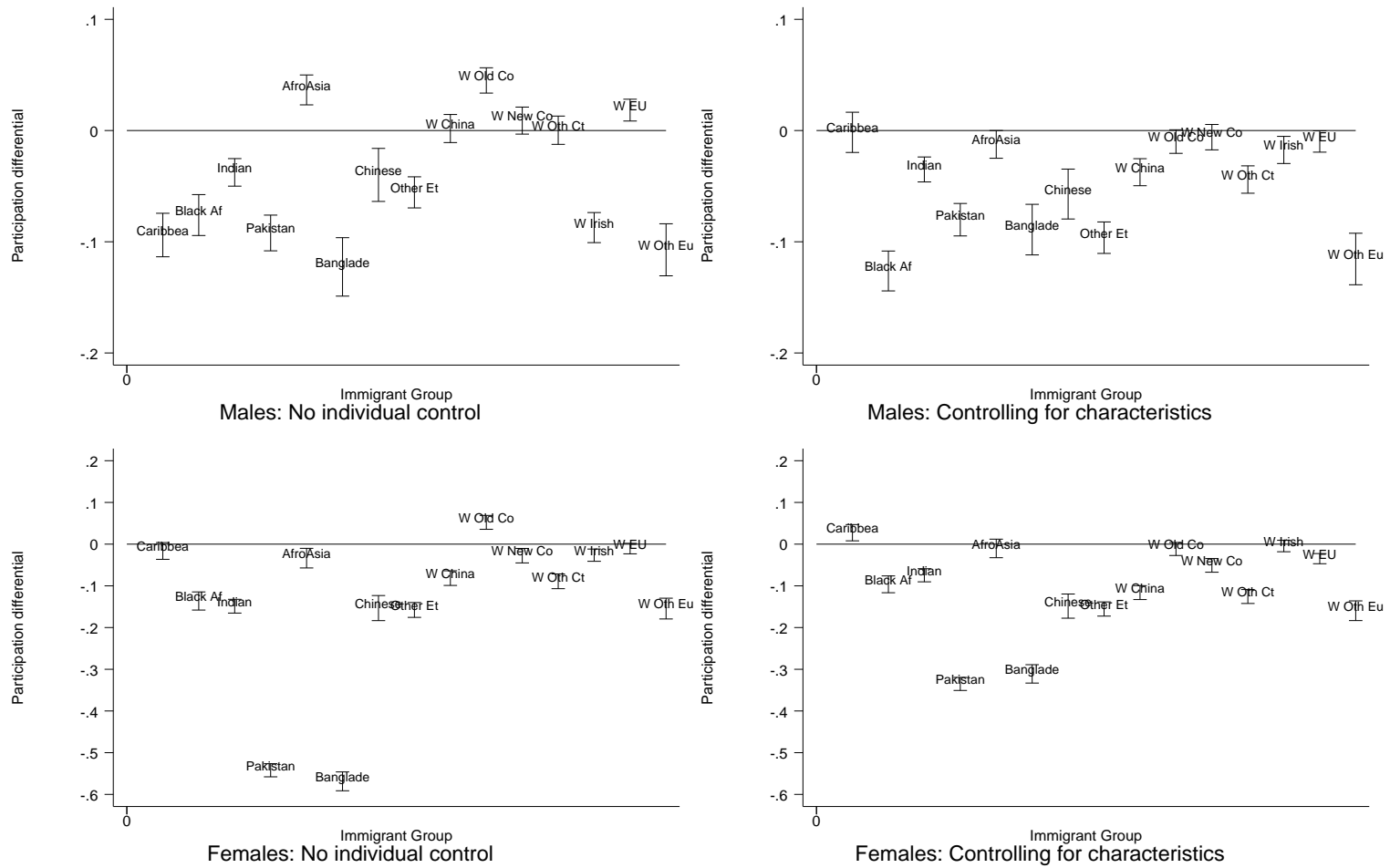


Figure 4.2: Participation differentials, 1<sup>st</sup> generation immigrants and white UK-born individuals

lower than those for white UK-born individuals. There are quite substantial differences between the different origin groups and Black Africans and white Europeans from outside the EU have the lowest participation probabilities.

These large differentials reflect the results we have found in the simple mean analysis in the last chapter. They suggest that characteristics like education and age, and regional distribution only explain to a small extent participation differentials: for some ethnic communities, a far larger proportion of male immigrants is economically inactive, compared to UK-born whites with the same demographic characteristics.

Even more dramatic is the comparison with females. Also, for females we find substantial differences between the conditional and unconditional estimates. In other words, when we compare the average immigrant female from a particular community (for instance Pakistani) with the average UK-born white individual, the difference in participation probabilities seems quite substantial. However, if we compare a Pakistani female with a UK-born white female *with the same demographic characteristics*, the difference diminishes substantially. This means that differences in age and education are largely responsible for the differences in participation probabilities.

## **Self-employment**

We now turn to self-employment. We investigate whether immigrants have a higher probability to choose to be self-employed rather than salaried employed, compared to UK-born whites. Another interesting question is whether immigrants' activities in self-employment are concentrated in the same sectors as UK-born individuals' activities, or whether immigrants choose other sectors.

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 UK-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 UK-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 UK-born workers, using US census data. He finds that immigrants are more likely to be self-employed than UK-born individuals with similar levels of skills. Borjas explains these results 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 national group. In these enclaves UK-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. They conclude that self-selection into self-employment is negative for minorities, while the selection for individuals from majorities is positive.

This evidence from the US suggests the following: 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. The disadvantage for self-employed individuals in such sectors who are from majority groups may then be prohibitive. As a consequence, for these self-employment opportunities individuals from minority groups only compete against

each other, while for other self-employment opportunities only individuals from majority groups compete against each other.

We commence our analysis by investigating the choice of sector for UK-born whites and immigrants; we break the immigrant sample down further into white immigrants and minority immigrants. We also consider some origin countries in more detail (Table 4.1). White UK-born individuals are heavily concentrated in construction, which is the largest sector with 33 per cent, followed by distribution, hotels and restaurants (17 per cent) and banking, finance and insurance (14 per cent). This contrasts sharply with the overall sector allocation of immigrants who are heavily concentrated in distribution, hotels and restaurants - 36 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 UK-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. This group is very heavily concentrated in construction, with 60 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.

We now compare overall self-employment probabilities of immigrants with those of UK-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 UK-born whites. Entries differ quite considerably for immigrants of different origin. For the male sample, it seems that individuals from the Pakistani, Chinese,

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

Sector	White UK-born	Immigrants	White immigrants	Minority immigrants	Pakistani	Chinese	African Asian	Indian	Irish
Agriculture & fishing	8.53	1.05	2.90	0.03	–	–	–	–	1.75
Energy & water	0.28	0.27	0.38	0.15	–	–	–	0.26	0.33
Manufacturing	9.05	6.37	7.90	4.76	5.06	4.72	4.72	6.48	4.67
Construction	32.83	17.75	27.22	7.77	4.00	6.85	6.85	9.39	60.39
Distribution, hotels & restaurants	17.32	35.59	22.21	49.72	43.24	57.87	57.67	49.34	9.63
Transport & communication	6.83	9.40	4.92	14.15	37.11	4.25	4.25	7.14	4.86
Banking, finance & insurance etc	13.93	13.90	17.09	10.47	3.80	12.43	12.43	9.69	6.80
Public admin, education & health	4.96	8.29	7.47	9.17	4.06	10.39	10.39	14.85	5.62
Other services	6.22	6.81	9.80	3.65	2.73	3.62	3.62	2.86	5.76
Workplace outside uk	0.04	0.13	0.13	0.14	–	0.08	0.08	–	0.19

Source: LFS, 1992-2000. Table entries are percentages.

and Afro-Asian communities have the highest probabilities to engage in self-employment activities, and their probabilities to be in this state is also higher than that of UK-born white individuals. In general, the variation in probabilities is much higher for 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 UK-born whites.

The graphs for females are interesting. Females of nearly all immigrant groups, including the white immigrants, exhibit larger probabilities of self-employment than the reference group. Again, Pakistanis and Chinese have the highest probabilities. Similar to males, the white foreign-born groups are very homogenous.

The findings we present 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.

## Wages

We now turn to analysing wage differentials between immigrants and white UK-born individuals. The adaptation of immigrants' earnings to the labour market conditions of the host country is a central issue in the literature on immigration. Using the human capital theory as a theoretical framework, a large and predominantly US literature exists which analyses immigrants' earnings, and their adaptation to UK-born individuals' earnings position over the migration cycle.

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 eight years, but only for the fifth quarterly wave (1992-1996) or the first and the fifth quarterly wave (1997 onward). Nevertheless, 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 UK case, since the economic behaviour of the immigrant population is so heterogeneous, as we

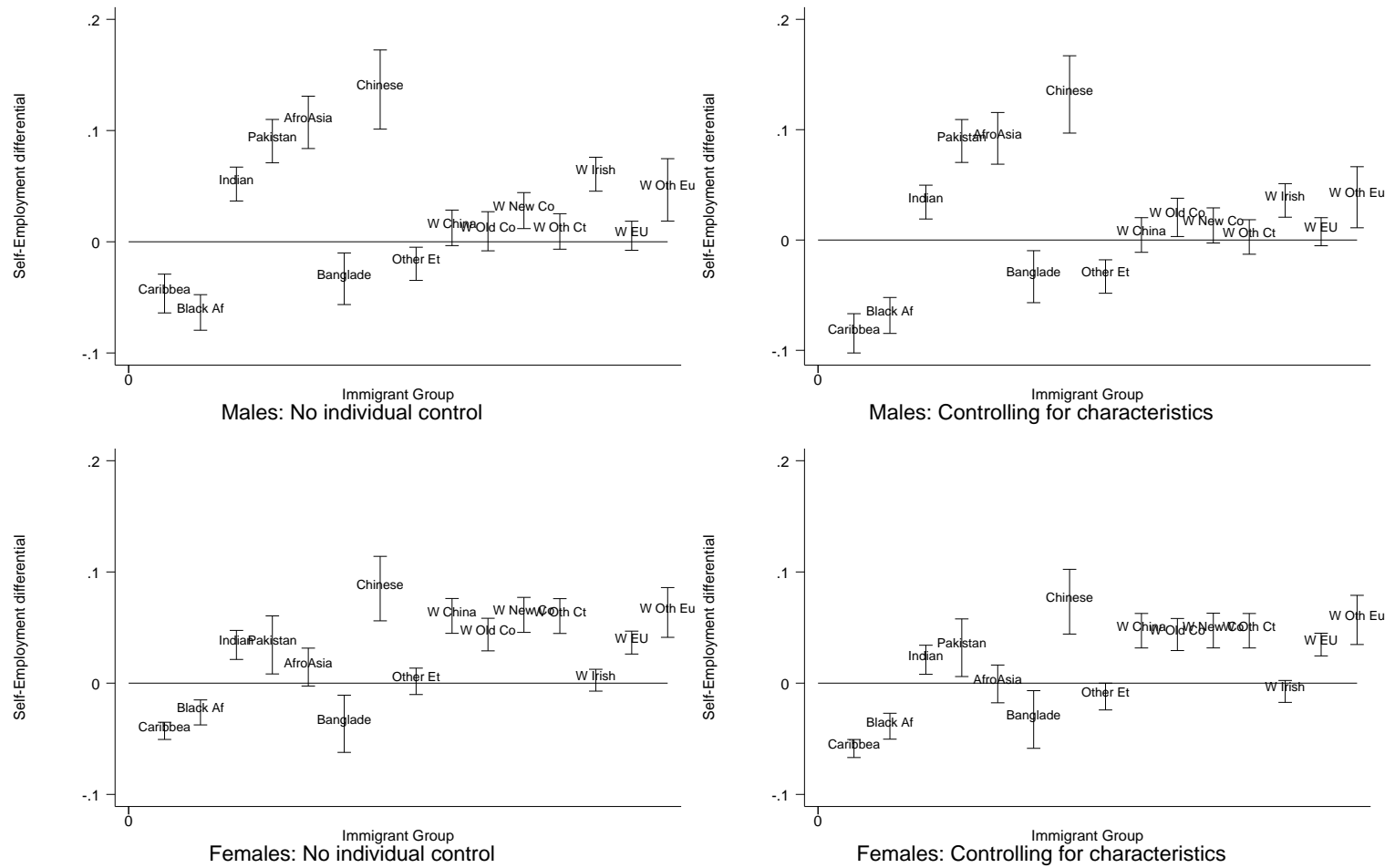


Figure 4.3: Self-employment differentials, 1<sup>st</sup> generation immigrants and white UK-born individuals

have illustrated above. Our measure for earnings is gross hourly wage.

Again, we commence by investigating the differences in wages between different immigrant groups, and UK-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 UK-born individuals and foreign-born with the same characteristics, where the foreign-born are evaluated at the average number of years of residence in the UK for the respective group. Below, we will refine our analysis to answer, in addition to the question of how immigrants with the average number of years of residence and UK-born whites differ in terms of earnings, how immigrants adapt to or dissimilate from the earnings of whites with the same demographic characteristics over the immigration cycle.

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

The most obvious feature of the graphs is the apparent difference between ethnic minority immigrants and white immigrants. The wage differences between non-white immigrants and white UK-born increase for most groups when we condition on individual characteristics and regional distribution, which may to some extent be explained 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 UK-born population. White immigrants have higher wages, and some groups have even higher wages than UK-born whites.

The differentials for some ethnic minority groups are quite substantial: Unconditional on individual characteristics and region, Bangladeshis and Pakistanis earn about 48 and 25 per cent lower wages than white UK-born; when we condition on individual characteristics and region, this difference reduces to 40 and 20 per cent, which is still substantial. On the other



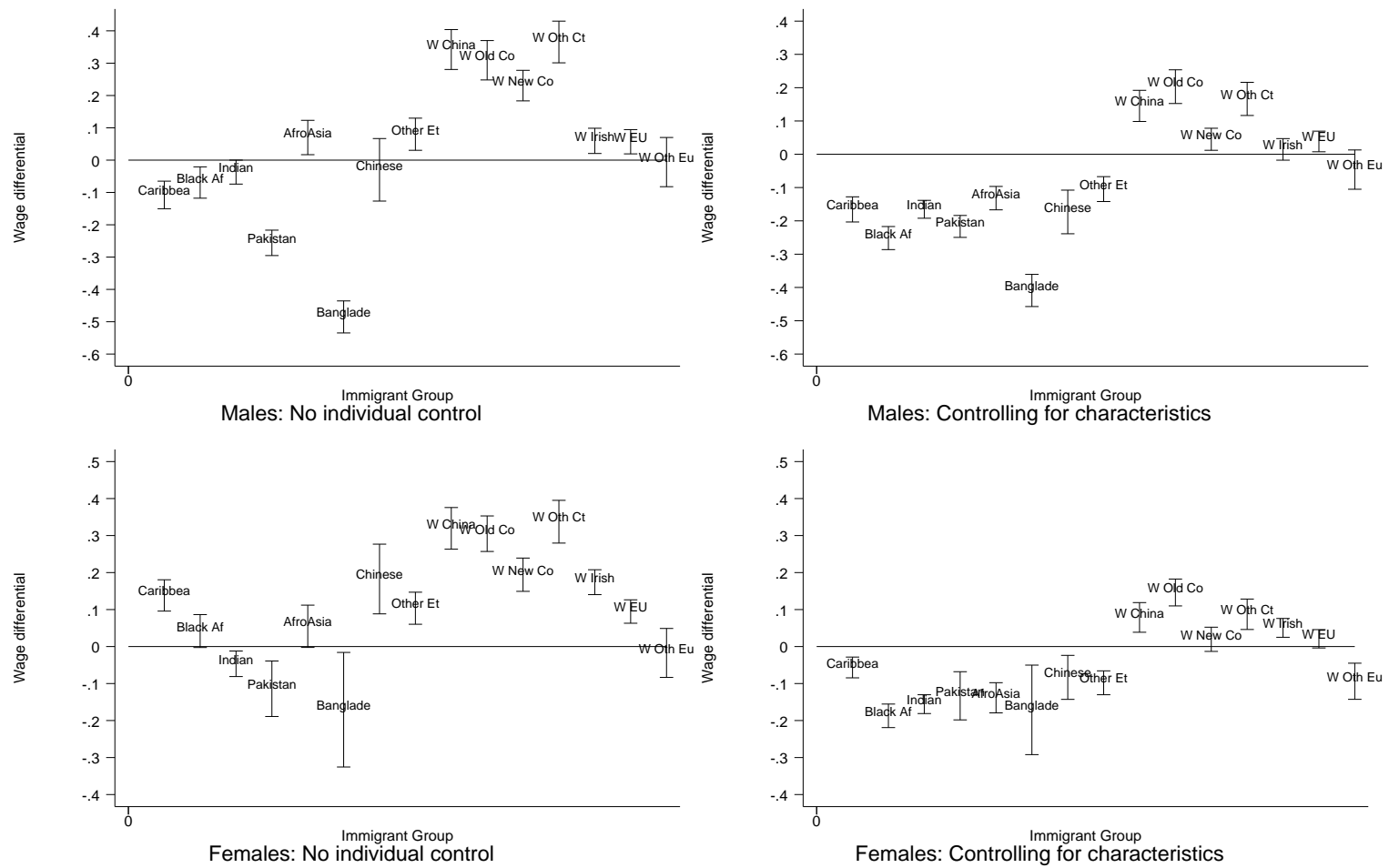


Figure 4.4: Wage differentials, 1<sup>st</sup> Generation immigrants and white UK-born individuals

side, white immigrants are mostly more successful than comparable UK-born -for instance, individuals from the Old Commonwealth countries earn on average 20 per cent higher wages than comparable UK-born individuals.<sup>4</sup>

For females, the patterns are very similar. Again, individuals from the Bangladeshi community have the lowest relative wages. The wage differentials between white female immigrants relative to the UK-born are even larger than for males.

## 5 Dynamic analysis

Our analysis has shown that there are large differences in participation, employment, wages, and self-employment probabilities between UK-born individuals and foreign-born individuals, as well as across immigrant groups of different origin, even if we condition on individual characteristics like age and education, and on geographic distribution.

It is likely that the relative position of immigrants to UK-born individuals changes with the time of residence. We have discussed in the Background chapter that immigrants may accumulate additional skills, specific to the host country economy, after arrival, or transfer skills to the needs of the foreign labour market. Furthermore, they may acquire information about the labour market after arrival, and learn about particularities of the host country's labour market. All this may lead to changes in differences between immigrants and white UK-born individuals. One variable which is likely to capture this process of adaptation is the time the immigrant has spent in the host country labour market.

The differences we have discussed in the previous sections are evaluated at the average time of residence for the particular immigrant group. We now take a more dynamic perspective. We shall compare an immigrant with a UK-born worker of same characteristics at the time the immigrant enters the host country, and follow this relative difference for the next four

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<sup>4</sup>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.

decades. Thus, we will be able to determine whether, and how fast the immigrant adapts to the respective white UK-born worker.

There are a number of issues which need to be considered. First, and as we have discussed in the Background chapter, this type of analysis is very sensitive to changes in the initial position of immigrants who arrive at different times (cohort effects). If this initial position changes, conditional on variables included in the regression, then this may lead to misleading adaptation profiles. We take account of cohort effects, and we distinguish between three cohorts: Those who arrived before 1973, those who arrived between 1973 and 1985, and those who arrived after 1985. Since we only have eight years of data, cohort effects are not well identified, though.

Second, as discussed above, there may be selective out-migration. If the most successful individuals leave after some years, then this may lead to a serious underestimate of the adaptation patterns. There is very little which can be done about this problem without data on return events. We will discuss the possible impact of this process on our results below.

Other things to consider are additional differences between immigrants we have so far not taken care of. One astonishing feature emerging from the descriptive analysis above is that a very large fraction of immigrants arrived at a very young age. It is not unlikely that those who arrive younger may have different initial opportunities than those who arrive at a later age. Furthermore, those who arrive young may also be more capable of acquiring additional knowledge, or have higher incentives for acquisition of additional skills. In our analysis we account for that by allowing for differences in the initial labour market positions for these two groups. We do this by conditioning, in addition to age and years since migration, on a dummy variable that distinguishes between immigrants who were younger than 16 when they arrived, and immigrants who were older than 16.

One problem we face with this analysis is the relatively small number of observations for some immigrant groups, which lead to problems in estimating the adaptation profiles in conjunction with cohort and year effects. We therefore consider four groups of immigrants: minority immigrants, which include immigrants from Africa (including Afro-Asians), the Caribbean, India, Pakistan, Bangladesh, and China; white immigrants from the New Com-

monwealth countries (including Pakistan); white immigrants from the Old Commonwealth countries (including South Africa); and individuals from Ireland and from countries of the European Union.

We present results of our analysis for males in Figure 5.1, and for females in Figure 5.2. We display profiles for employment, labour force participation, self-employment, and wages. The charts are conditional on socio-economic characteristics, time and regional effects.

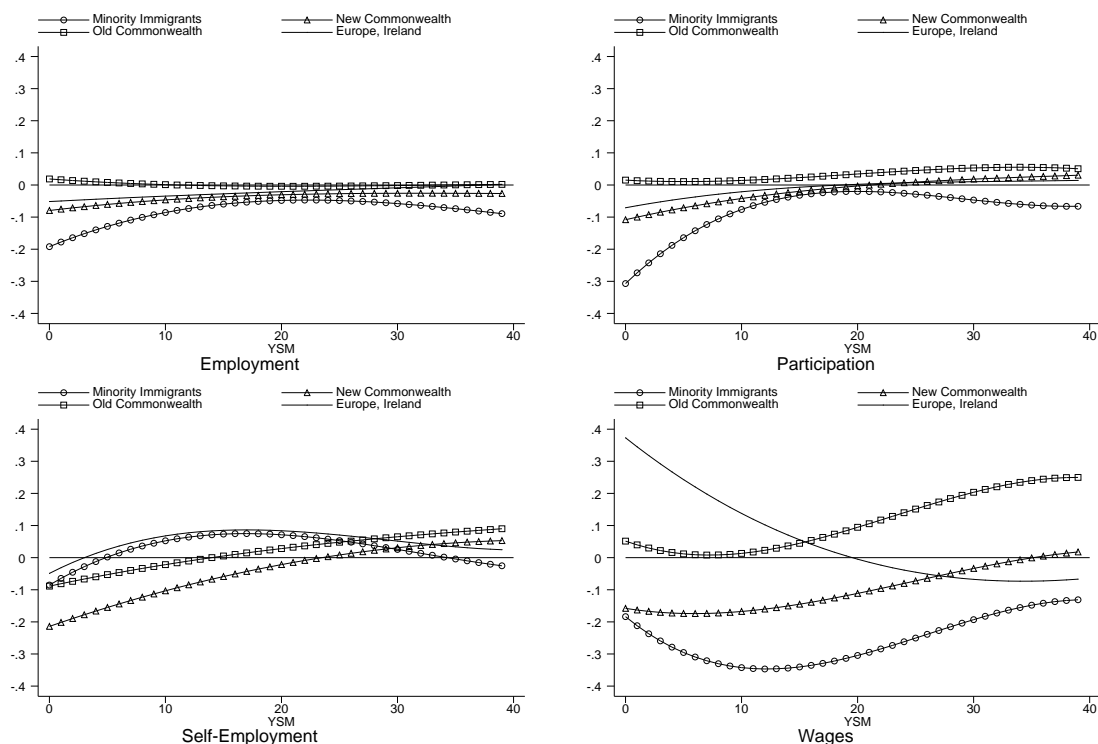


Figure 5.1: Adaptation profiles, males

First consider the profiles for males (Figure 5.1). The upper right panel displays participation probabilities, relative to white UK-born individuals. There are stark differences across origin groups. Minority immigrants have upon arrival a 30 percentage points lower probability of participating in the labour market than UK-born whites, but the difference becomes smaller with years of residence. After about 20 years in the host country, the initial difference has nearly disappeared. White New Commonwealth immigrants have likewise

lower initial participation probabilities, and again we observe adaptation. White immigrants from the Old Commonwealth, and the Europeans and the Irish are hardly distinguishable from UK-born whites.

The next upper panel reports profiles for employment. Again, minority immigrants have an initial disadvantage, which seems to disappear with years of residence. There is also an initial disadvantage for New Commonwealth immigrants, and for the Irish and Europeans, but the gap between these groups, and the white UK-born reduces with time of residence. Old Commonwealth individuals exhibit initially higher employment probabilities.

Self-employment probabilities seem to increase for all immigrant groups, relative to UK-born workers. In particular minority immigrants seem to overtake the UK-born individuals in terms of self-employment probabilities after about 4-5 years of residence. This may reflect that, initially, immigrants have to allocate the necessary capital to get involved in self-employment activities.

Wages exhibit unexpected patterns. For all groups, except the Irish and Europeans, there seems to be no real trend in wage profiles; for the latter group, wages are initially higher than those of UK-born individuals, but decrease with time of residence. The relatively small number of observations renders the estimates of the wage regressions very unstable, and sensitive to the specification of the wage regression. The apparent decrease in wages for the Irish and Europeans is in line with Bell's (1997) findings for the white immigrants. One explanation is that there is selective out-migration, as we have discussed before. If the most successful individuals from the respective group remain only for a short period, and out-migrate afterwards, then this may lead to a strong downward estimate in the wage profile.

We would like to interpret our wage results with caution. Better data and more information on out-migration is required to draw a more complete picture of the dynamics of wage evolution of different immigrant groups in the UK.

In Figure 5.2 we display profiles for females. Noteworthy are the very large initial differences in participation probabilities and in employment probabilities between ethnic minority females, and white UK-born females. Differences decrease with time of residence. Participa-

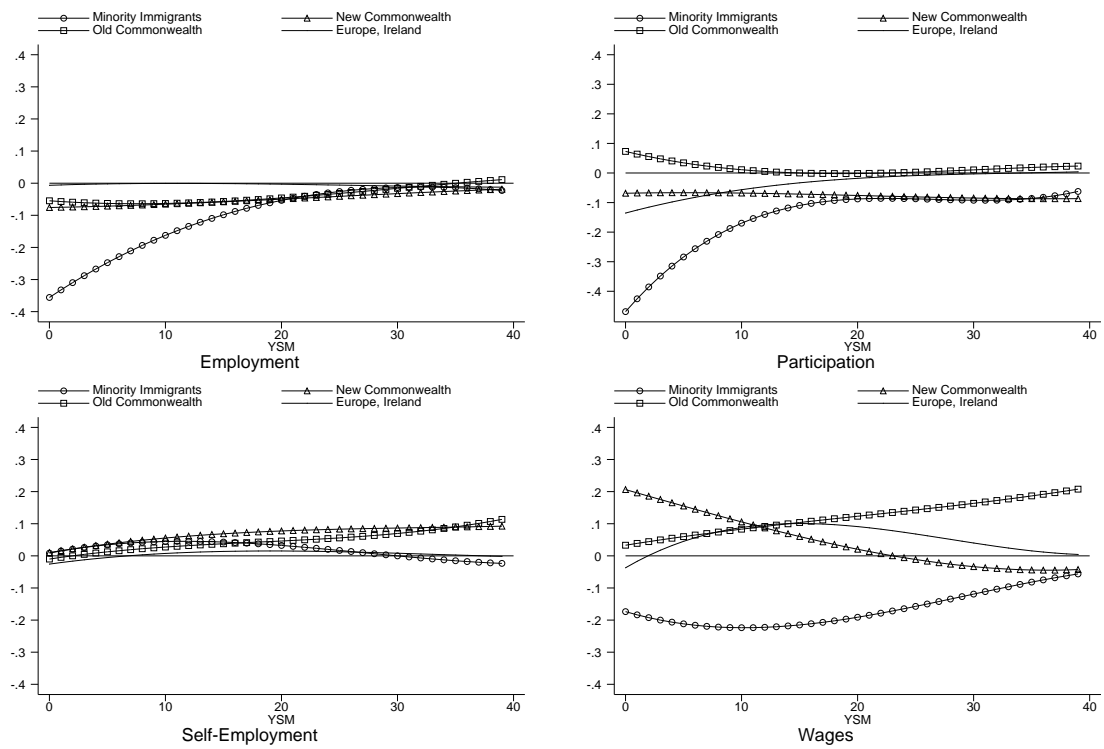


Figure 5.2: Adaptation profiles, females

tion probabilities are more than 10 per cent lower than those of white UK-born individuals even after 40 years of residence. Employment probabilities seem to converge.

Profiles for the other groups are much closer to those of the UK-born whites. There seem to be initially higher participation probabilities for New and Old Commonwealth individuals. Employment probabilities for all three latter groups are very similar, and remain slightly lower than those of UK-born whites. Again, results for wages are very unstable.

## 6 Economic outcomes, language, and public-private sector differentials

### Language and labour market outcomes

We draw in this chapter on Dustmann and Fabbri (2002), who use data from the FWLS and the FNSEM to analyse language proficiency of minority immigrants, and the effect of language on employment and wages.

The Family and Working Lives Survey (FWLS) has been collected between 1994 and 1995. It is a retrospective survey on adults aged between 16 and 69, including 9,000 respondents and their partners. It contains a "boost" sample of about 2,000 individuals belonging to four ethnic minority groups: Black Caribbeans, Indians, Pakistanis and Bangladeshi. The data provides information on earnings, education, nationality, language skills and other background characteristics. Of the 2,388 people forming the minority sample in the main and "boost" sample, 68 per cent (1,639) are foreign-born.

The Fourth National Survey on Ethnic Minorities (FNSEM) is also a cross-sectional survey, which was carried out between 1993 and 1994. Individuals included are aged 16 or more, and of Caribbean, Indian, Pakistani, African-Asian (i.e. individuals born in Africa but with Asian origin), Bangladeshi or Chinese origin. There are 5,196 observations in the minority sample and 2,867 observations in the independent comparison sample of white individuals. Similarly to the FWLS, more than 77 per cent of the individuals in the ethnic minority sample are foreign-born.

In Table 6.1 we report self-reported language proficiency for different immigrant groups. The numbers in the table indicate that there are considerable differences in fluency according to ethnic affiliation, with individuals from the Caribbean community being most fluent, and individuals from the Pakistani and Bangladeshi communities being most disadvantaged.

As a first step of their analysis, Dustmann and Fabbri (2002) investigate the way language acquisition is related to individual characteristics, like age at entry, gender, education, and years of residence. They find that males have a significantly higher probability to be fluent



Table 6.1: Language proficiency, minority immigrants

Language information							
	All groups	Caribbean	Indian	Afro-asian	Pakistani	Bangladeshi	Chinese
	Speaking, FWLS						
Very well	37.81	54.55	50.44	64.77	38.16	25.93	-
Quite well	23.12	13.64	27.43	27.27	26.05	18.46	-
Not well	20.12	18.18	18.14	5.68	21.32	22.82	-
Hardly	11.69	13.64	3.54	2.27	10	18.46	-
Not at all	7.26	-	0.44	-	4.47	14.32	-
	Reading, FWLS						
Very well	34.64	40.91	48.67	61.36	33.16	24.07	-
Quite well	21.12	18.18	23.89	26.14	21.58	18.67	-
Not well	15.86	22.73	14.16	7.95	17.11	16.8	-
Hardly	13.19	9.09	7.96	1.14	14.47	17.01	-
Not at all	15.19	9.09	5.31	3.41	13.68	23.44	-
	Writing, FWLS						
Very well	32.39	40.91	45.13	56.82	29.47	23.86	-
Quite well	19.2	18.18	21.68	23.86	20.79	15.98	-
Not well	16.61	22.73	15.49	13.64	18.16	16.18	-
Hardly	12.77	4.55	11.06	2.27	13.68	15.15	-
Not at all	19.03	13.64	6.64	3.41	17.89	28.84	-
	Speaking, FNSEM						
Fluent	48.73	89.65	39.98	65.63	25.56	25.97	56.59
Fairly	20.4	9.62	24.37	19.2	25.56	23.02	12.64
Slightly	21.2	-	25.84	11.76	32	34.25	18.13
Not at all	9.67	-	9.81	3.41	16.88	16.76	12.64

Table A1 from Dustmann and Fabbri (2002).

in the majority language. The effect of age at entry is negative and strongly significant, indicating that those who arrive younger acquire language proficiency more easily. Years of residence has a positive effect, which decreases with time in the host country. All these results are consistent with findings for other countries. Furthermore, the effect of these variables is similar for all three components of language capital. Education affects fluency positively, and the positive relationship between educational background and language is stronger for reading and writing.

There remain large differences in the level of language proficiency among different ethnic groups, even after conditioning on individual characteristics. Bangladeshis and Pakistanis are those two groups with the lowest levels of language proficiency.

As regards employment probabilities, findings are that language proficiency is strongly related to higher employment probabilities, conditional on a large array of background characteristics. English fluency is associated with a 15-17 percentage point higher employment probability, depending on the data source used. The coefficients are highly significant. For earnings, there are large and likewise significant coefficients for the English fluency variables. The point estimates for both data sets are quite similar, and indicate that English language proficiency is associated with 18 - 20 per cent higher wages.

Simple regressions, on which the reported estimates are based, may not identify the true causal effect of language on wages. If individuals who are very successful in the labour market also have higher language proficiency, and if this relationship is due to unobserved characteristics not included in the regression, then the regression estimates may be overestimates of the true effect. On the other hand, measurement error in the self-reported language variables (which is very substantial, as illustrated by Dustmann and van Soest 2001, 2001a) may lead to an underestimate of language effects. Using an IV approach to address the measurement error problem, and a matching estimator to address the problem of unobserved heterogeneity, Dustmann and Fabbri suggest that the true effect of language on employment probabilities and on wages is larger than what is obtained from simple OLS regressions. Results suggest that fluency increases the probability that a male individual is employed by around 26 percentage points for males. Likewise, results for earnings suggest that the true effect of language

is higher than simple regressions indicate.

When computing the effect of language proficiency on the employment and wage gap between UK-born individuals and ethnic minority immigrants, the study concludes that language largely reduces differences in both economic outcomes.

### **Wages in public and private sector**

We have estimated the difference in log wages between immigrants and UK-born workers in the public sector, and in the private sector, for both males and females. We distinguish between white immigrants and immigrants from ethnic minority communities. We pool immigrants and UK-born individuals, and we regress log wages on age, education, year, region, a dummy variable for public sector, a dummy variable for being in a part-time job, two dummy variables for being an immigrant from an ethnic minority group, or a white immigrant, and two interaction variables between being in the public sector, and being a white immigrant, or an ethnic minority immigrant.

We first discuss our results for males. According to our estimations, white immigrants in the private sector have on average 8 per cent higher wages than UK-born individuals. This wage advantage reduces by about 4 per cent in the public sector, and this difference is significant.

On the other hand, immigrants from ethnic minority groups who work in the private sector have on average a wage disadvantage of 24 per cent; in the public sector however, this disadvantage reduces by about 15 per cent, and this reduction is again significant.

For females, results are similar. In the private sector, white immigrants earn on average 6 per cent higher wages than UK-born individuals, while females from ethnic minority immigrant groups earn about 14 per cent lower wages. This wage differential reduces to 3 per cent for white immigrants in the public sector. For female immigrants from an ethnic minority group who work in the public sector, there is no significant reduction in the wage disadvantage, as compared to those who work in the private sector.

These results indicate a smaller wage differentials between immigrants and UK-born individuals in the public sector, as compared to the private sector. Our analysis is very descriptive, and does not investigate the reasons for this. One possible explanation is that sector choice is selective on variables which are not observed, and that the selection process differs between the two immigrant groups we distinguish, and UK-born individuals.<sup>5</sup> Future research on wage differentials of immigrants in public and private sector seems promising.

## 7 White UK-born, ethnic minority immigrants, and ethnic minority UK-born

We now turn to an analysis of the relative performance of individuals from ethnic minority groups who are born in the UK. Given the time patterns of immigration to the UK, these individuals are predominantly young, and we therefore compare them to UK-born individuals in the same age range (we only consider UK-born whites below age 45). Our analysis will again distinguish between different ethnic groups.

We consider the analysis of minorities born in the UK as important for obtaining a full picture of the well being of immigrants in the UK. The adaptation of immigrants to the host country economy is an issue which does not only relate to the immigrant population, but also to the next generation. Our analysis is aimed to provide some understanding as to whether economic advantages or disadvantages of immigrants relative to UK-born whites, or to immigrants of different origin, are transmitted to the next generation.

The economic performance indicators we investigate are participation, employment, and wages.

We commence with investigating employment and participation probabilities. We use again a graphical representation to report the differences in outcomes, and we compare UK-born minority individuals to UK-born whites (lower panels). For comparison purposes, we

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<sup>5</sup>See Dustmann and van Soest (1998) for a detailed analysis of public-private sector choice. See Disney and Gosling (1998) for a detailed analysis of public-private sector wages in the UK.

reproduce our results from the sections above for foreign-born individuals of the same ethnic origin as the UK-born minority individuals (upper panels). Again, the graphs on the left report unconditional differences; the graphs on the right report conditional differences, controlling for demographic characteristics and region.

## Employment

In Figures 7.1 and 7.2, we report employment differentials of various ethnic minority groups born in the UK (lower panel), relative to UK-born white individuals. The figures refers to males and females respectively. We have seen in chapter 7.3 that, like immigrants, UK-born ethnic minority individuals are heavily concentrated in London. Controlling for region is therefore likely to change results of the performance analysis. Comparison of the graphs on the left and the right of the figure differ slightly, but not dramatically. We see that, relative to white UK-born, ethnic minority individuals have on average slightly lower employment probabilities, but not for all groups are these differences significant. While individuals from the Bangladeshi and Chinese community have employment probabilities which are not significantly lower than those of whites, differences are quite large, and significant for Pakistanis, Caribbeans, and Black Africans.

When we compare this with first generation immigrants from the same origin countries (upper panel), we find some pronounced differences. The differences have reduced for some ethnic groups in the next generation. Certain patterns are clearly visible - Black Africans, Caribbeans, and Pakistanis have been the groups with the relatively lowest employment probabilities among immigrants, and so they are among UK-born minorities. Bangladeshis, while being the group with the lowest employment probabilities among immigrants, are not significantly distinguishable any more from UK-born whites if born in the UK. Notice, however, that standard errors for UK-born minorities are far larger as those of first generation minorities, which is due to smaller sample sizes on the former groups.

For females, the employment differentials are very similar for immigrants and ethnic minorities born in the UK.

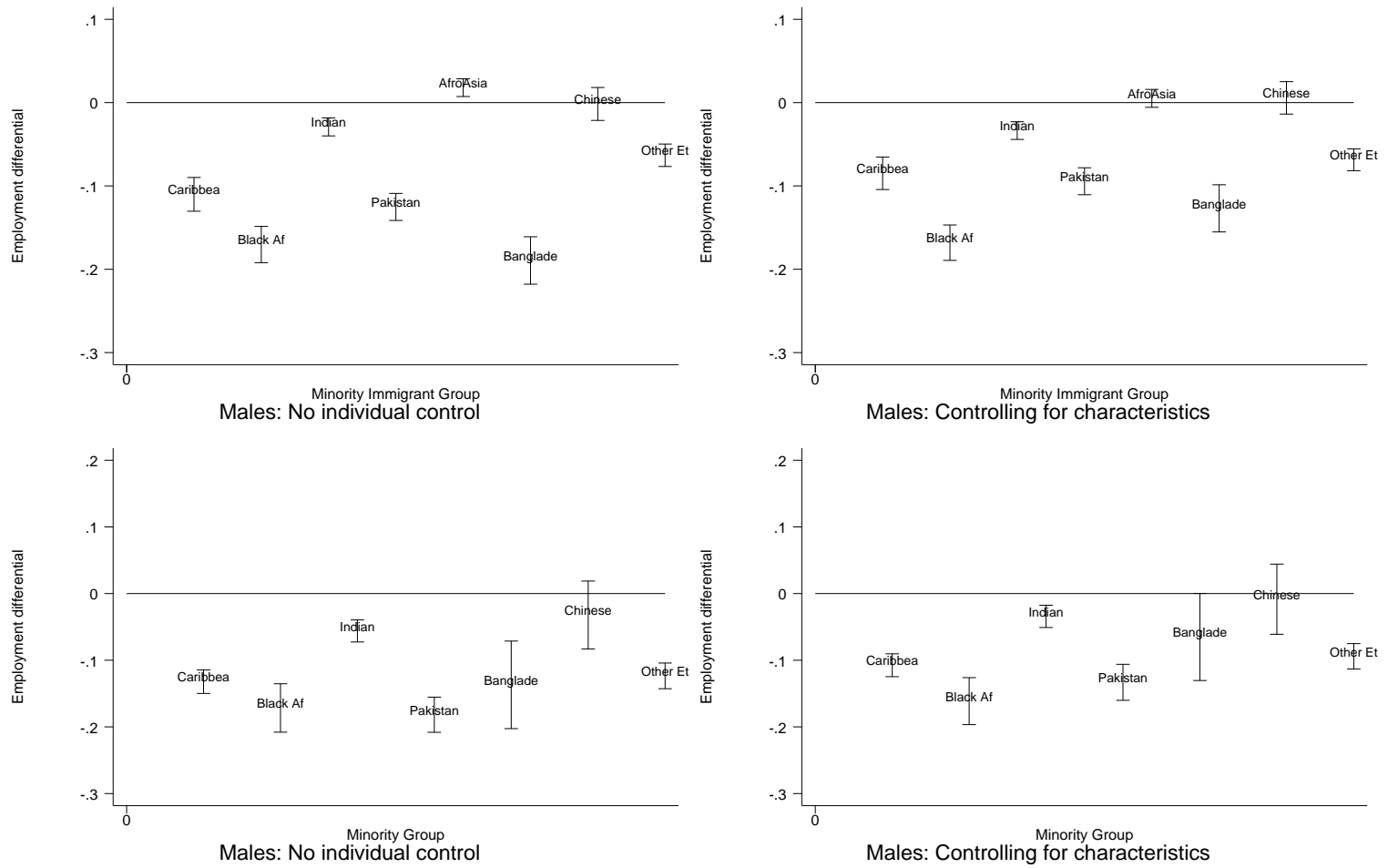


Figure 7.1: Employment differentials, 1<sup>st</sup> and 2<sup>nd</sup> generation ethnic minorities and white UK-born individuals, males

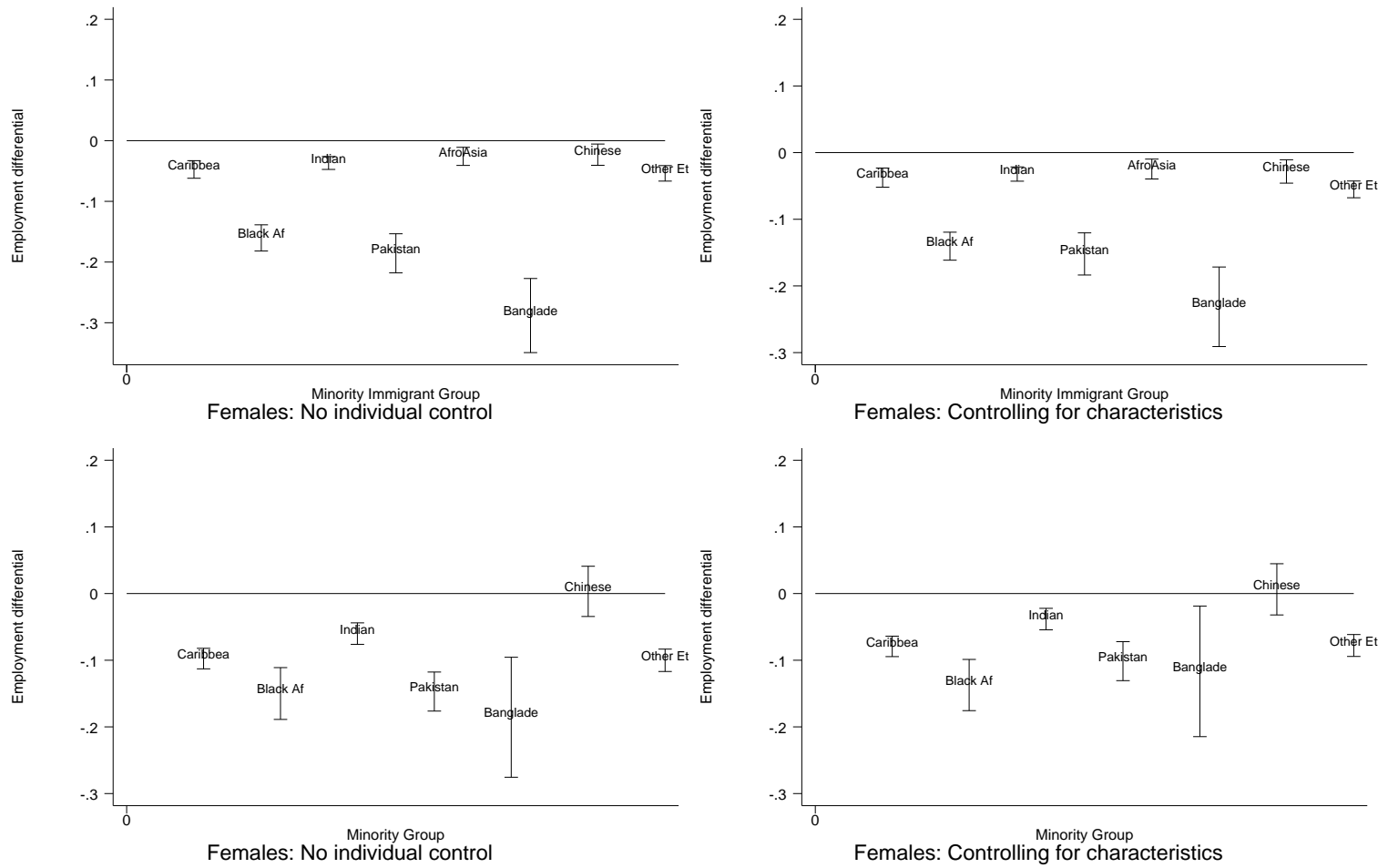


Figure 7.2: Employment differentials, 1<sup>st</sup> and 2<sup>nd</sup> generation ethnic minorities and white UK-born individuals, females

## Participation

We now turn to participation probabilities, which we report in Figures 7.3 (males) and 7.4 (females). We first discuss the figure for males. Here we see large differences between those born in the UK, and those born abroad. While participation probabilities for immigrants are all significantly lower than those for UK-born white individuals, with magnitudes ranging between 7 and nearly 40 percentage points, ethnic minority individuals born in the UK have very similar participation probabilities to white UK-born individuals.

For females, differences between white UK-born females, and ethnic minority UK-born females are not significantly different from zero for most groups. This contrasts to relatively large differentials for immigrants from most minority populations. Pakistani women still have a significant disadvantage, but the differential is substantially lower than for foreign-born Pakistanis.

## Wages

We now turn to wages. We first look at males, where results are reported in Figure 7.5. Estimates for some groups are very imprecise, indicated by the large confidence intervals, which is due to the reduced sample size.

The results indicate that there are still sizeable wage differentials between UK-born whites and UK-born ethnic minority individuals for some groups, like for Black Africans, Pakistanis, and Caribbeans. For other groups differentials are small, or not statistically different from zero. Compared to immigrants (reported in the upper panel of the figure), there is an overall reduction in differences. Nevertheless, patterns across minority communities are visible, with Pakistanis and Black Africans exhibiting larger wage differentials with respect to white UK-born individuals.

Turning to females (Figure 7.6), the picture which emerges is similar. It is only individuals from the Pakistani and Black African communities who have significantly lower wages than UK-born whites. Wages of all other groups are not significantly different from UK-born individuals.



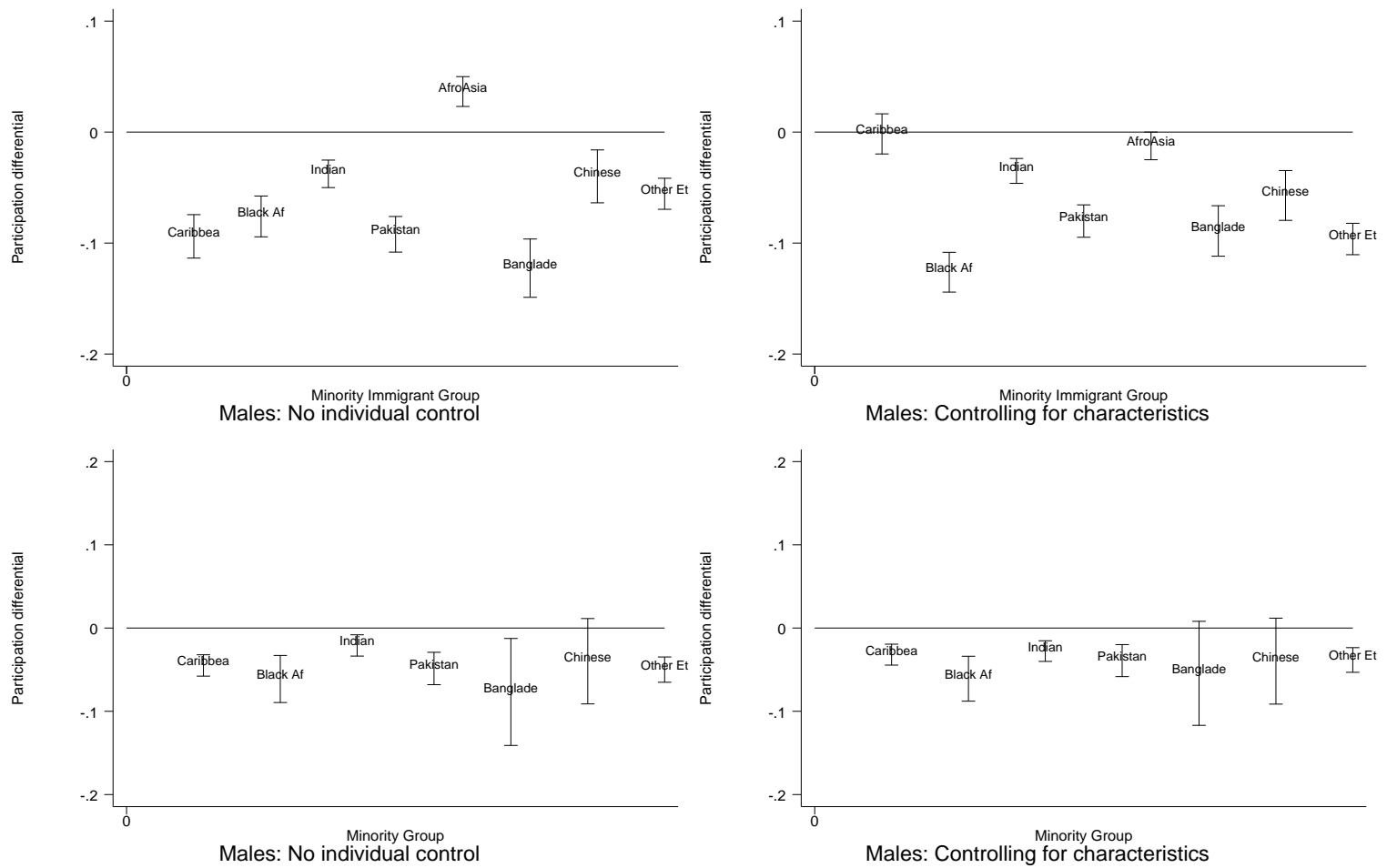


Figure 7.3: Participation differentials, 1<sup>st</sup> and 2<sup>nd</sup> generation ethnic minorities and white UK-born individuals, males

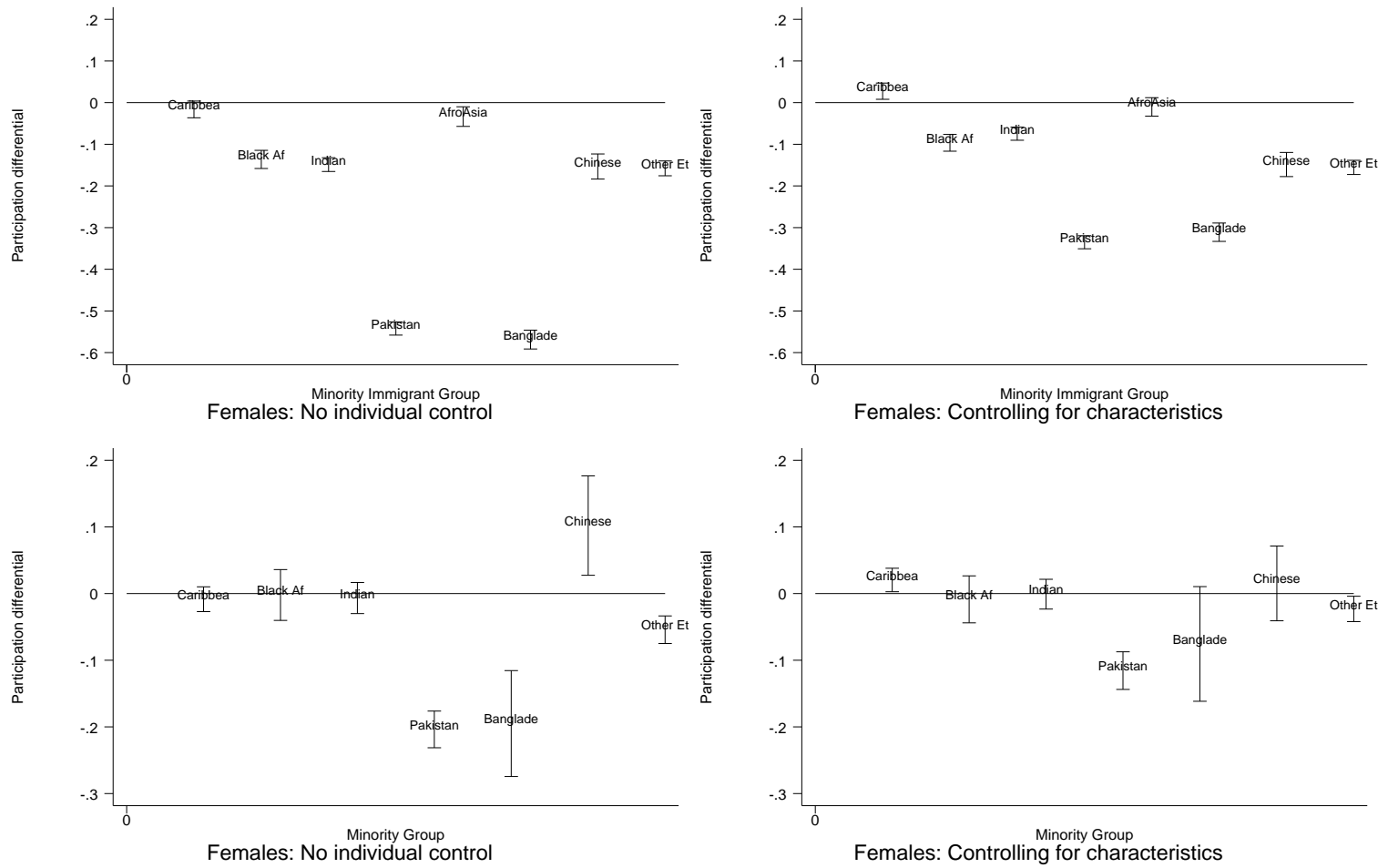


Figure 7.4: Participation differentials, 1<sup>st</sup> and 2<sup>nd</sup> generation ethnic minorities and white UK-born individuals, females

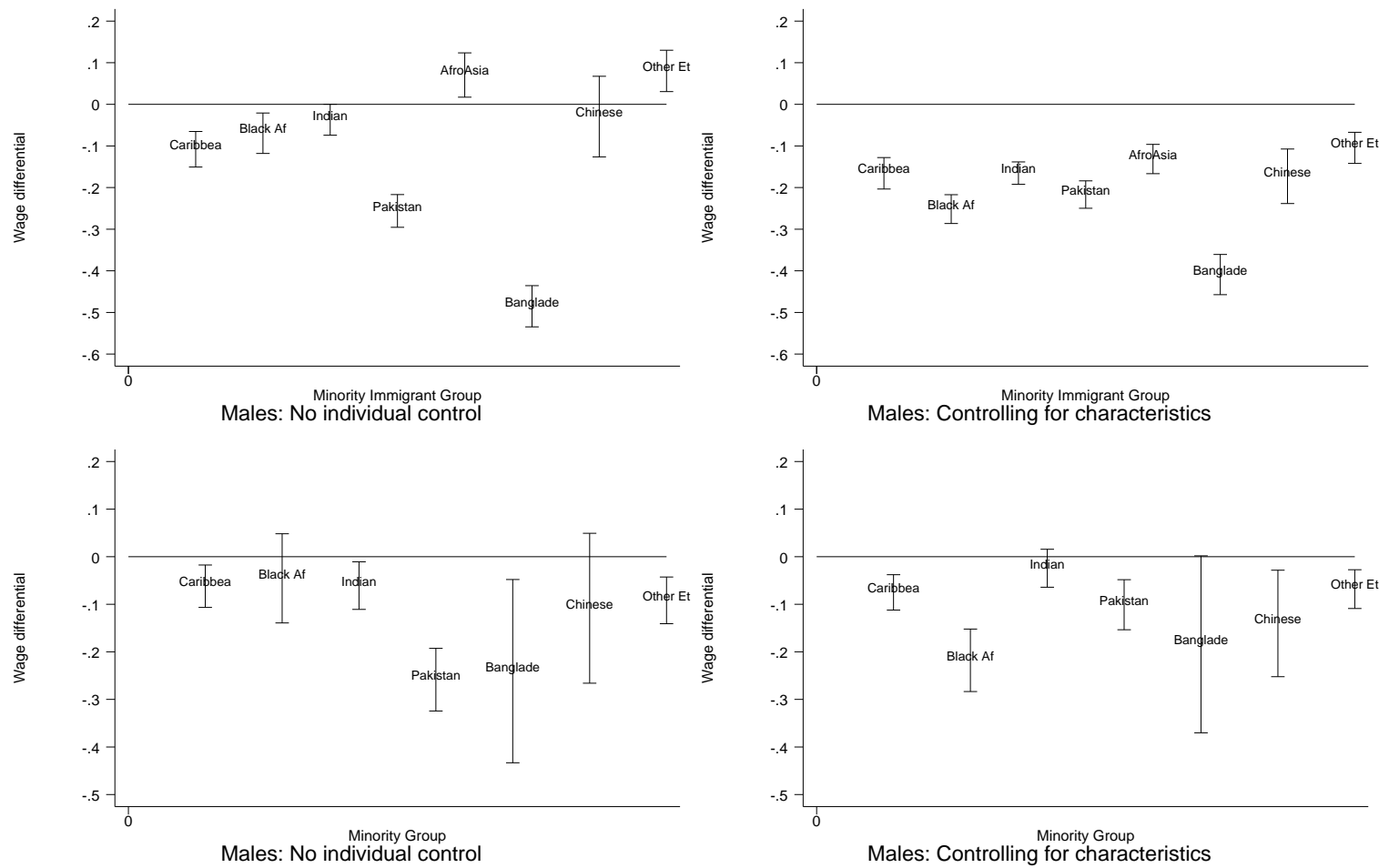


Figure 7.5: Wage differentials, 1<sup>st</sup> and 2<sup>nd</sup> generation ethnic minorities and white UK-born individuals, males

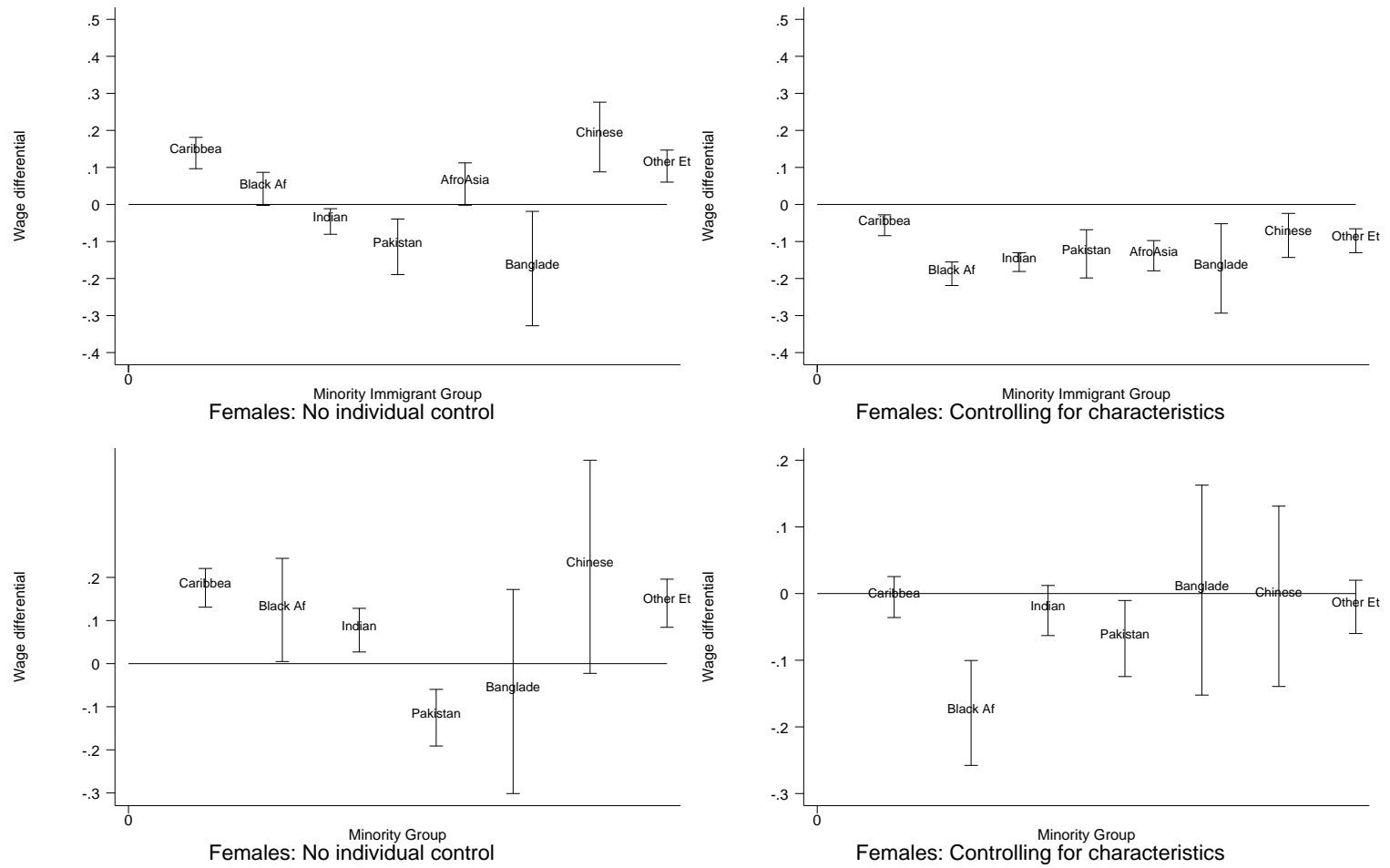


Figure 7.6: Wage differentials, 1<sup>st</sup> and 2<sup>nd</sup> generation ethnic minorities and white UK-born individuals, females

To summarise, our analysis of UK-born ethnic minority individuals reveals that overall, differences between UK-born minority individuals and UK-born whites are smaller on average than between minority immigrants and UK-born whites. However, this decrease is not evenly distributed across ethnic groups. It seems that individuals from the Pakistani, Black African, and Caribbean communities exhibit stark disadvantages not only among immigrants, but also among UK-born minorities.

## 8 Discussion and recommendations

Possibly the strongest finding of this report is that immigrants in the UK 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 the UK. But these observable differences explain only a part of the differences in economic outcomes. Our analysis illustrates substantial differences in many aspects of economic behaviour between immigrants and UK-born whites, and even larger differences across immigrants of different origin, even conditional on education, age, and other individual characteristics. In general, white immigrants are quite successful in the UK, although there are differences between groups of different origin. The investigation identifies immigrants from ethnic minority groups as those who are most disadvantaged. Pakistanis and Bangladeshis are at the lower end of this scale. Our research also shows that labour market outcomes of non-white immigrants are more volatile over the economic cycle than for white immigrants and British-born whites.

We do not have a simple answer for why there are large differences between immigrants of different origin, conditional on observable characteristics. One reason may be language proficiency - the results we report 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 explained by these factors. Quantification of the causal links is more difficult, though.

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 and deeper analysis in this area could contribute to quantify this relationship.

We also find that immigrants are very active in self-employment activities, and that they concentrate in different sectors, according to their origin. This 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 9 per cent higher probability to be self-employed than UK-born white individuals, while Bangladeshis have a 3 per cent lower probability. By being self-employed, immigrants may make major contributions to the UK economy, by providing work opportunities, or producing goods in their area of expertise. To quantify these effects should be interesting and important.

Another key area for future research is investigation of economic success across immigrant generations. Adaptation is a dynastic process, with children of immigrants continuing the process of adaptation, relative to their UK-born white peers, which their forebears have initiated. Our research shows that UK-born minority individuals do better than immigrants (both relative to UK-born whites), but that many communities are still disadvantaged compared to UK-born whites. Again, we observe large differences in economic outcomes of UK-born minority communities. To fully understand the reasons for this is important for policy aimed at integrating minorities born in the UK. Future research could help to identify the factors that are the most important contributors to the economic success of UK-born minorities. Results of more detailed analysis on the intergenerational mobility of immigrants, as compared to UK-born individuals, would be very relevant, as questions about integration of minority individuals, different in culture and religion, have become increasingly important.

This report has probably raised more new questions to be investigated in future research than it has answered. Crucial for more conclusive empirical research on many issues is more and better data. One of the largest problems is the small sample size of immigrants in survey data. We suggest the creation of a panel on immigrants, which could supplement existing

Panel studies, like the BHPS.



## 9 Appendix

### Technical details

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

$$O_{it} = a_0 + x'_{it}\mathbf{a}_1 + OR'_{it}\mathbf{a}_2 + R'_{it}\mathbf{a}_3 + Y'_{it}\mathbf{a}_5 + u_{it}, \quad (1)$$

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 UK-born individuals. The graphs we present in chapter 3 are based on estimated parameters  $\hat{\mathbf{a}}_2$ . They measure the difference in outcomes between a white UK-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.

The results of the adaptation analysis is based on a simple extension of equation (1), by adding a third order polynomial in the variable "years since immigration", and by adding cohort dummies, as explained above. Notice that the cohort dummies are identified by the assumption that the the effect of macro shocks on wages, as measured by the set of year dummy variables, is the same for UK-born individuals, as it is for immigrants.

## Glossary

This chapter contains definitions of the variables used in the regression analysis.

### 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.

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

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

**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).

**w China:** white individuals born in China (including Taiwan and Hong Kong).

**w Old Comm:** white individuals born in the Old Commonwealth.

**w New Comm:** white individuals born in the New Commonwealth.

**w Other:** white individuals born in other countries.

**w Irish:** white individuals born in Ireland.

**w EU:** white individuals born in the European Union.

**w Oth Eur:** white individuals born in non-EU European countries.

Definitions of geographical areas larger than single countries (following the Labour Force Survey categories):

**Old Commonwealth:** Australia, Canada, New Zealand and South Africa.

**New Commonwealth:** Kenya, Uganda, Tanzania, Malawi, Zambia, Zimbabwe, Botswana, Lesotho, Swaziland, Gambia, Ghana, Nigeria, Sierra Leone, Barbados, Jamaica, Trinidad and Tobago, West Indies, Other Caribbean Commonwealth, Belize, Guyana, Bangladesh, India, Sri Lanka, Hong Kong, Malaysia, Singapore, Cyprus, Gibraltar, Malta and Gozo, Seychelles, Mauritius, Other New Commonwealth, Pakistan.

**European Union:** Belgium, Denmark (including Greenland), France (including Monaco), Italy (including San Marino and Vatican City), Luxembourg, Netherlands, Germany (Federal Republic and previous Democratic Republic), Austria, Greece, Portugal (including Azores, and Madeira), Spain (including Balearic and Canary Islands), Finland, Sweden.

**Other European countries:** Israel, Albania, Bulgaria, (former) Czechoslovakia, Hungary, Poland, Romania, Switzerland, Norway, other Yugoslavia, Turkey, former USSR, other Europe.

## 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 household.

**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 9.1: Immigrants vs white UK-born: employment

Variable	MALES				FEMALES			
	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE
Caribbean	-0.11	0.01	-0.085	0.01	-0.047	0.007	-0.038	0.007
Black African	-0.17	0.011	-0.168	0.011	-0.16	0.011	-0.14	0.011
Indian	-0.029	0.005	-0.034	0.005	-0.037	0.005	-0.032	0.005
Pakistani	-0.125	0.008	-0.094	0.008	-0.186	0.016	-0.152	0.016
Afro-Asian	0.018	0.005	0.005	0.005	-0.026	0.007	-0.025	0.007
Bangladeshi	-0.189	0.014	-0.127	0.014	-0.288	0.031	-0.231	0.03
Chinese	-0.002	0.01	0.006	0.01	-0.023	0.009	-0.028	0.009
other ethnic	-0.063	0.007	-0.069	0.007	-0.054	0.006	-0.055	0.006
w China	0.011	0.018	0.018	0.017	0.026	0.012	0.029	0.013
w Old Comm	0.02	0.005	0.011	0.005	-0.001	0.004	-0.001	0.004
w New Comm	0.005	0.005	-0.009	0.005	-0.005	0.004	-0.013	0.004
w Other	0.005	0.005	-0.012	0.005	-0.014	0.005	-0.024	0.005
w Irish	-0.037	0.005	-0.026	0.005	-0.003	0.004	-0.008	0.004
w EU	0.004	0.004	0.006	0.004	-0.012	0.003	-0.009	0.003
Other Europe	-0.102	0.012	-0.098	0.012	-0.056	0.009	-0.055	0.009
age	-	-	0.01	0	-	-	0.011	0
age sq/100	-	-	-0.012	0	-	-	-0.012	0
married	-	-	0.091	0.001	-	-	0.052	0.001
n children	-	-	-0.016	0	-	-	-0.019	0
degree	-	-	0.116	0.002	-	-	0.06	0.001
A-level	-	-	0.092	0.002	-	-	0.056	0.001
O-level	-	-	0.074	0.002	-	-	0.038	0.001
Region dummy	No		Yes		No		Yes	
Intercept	0.888	0.001	0.593	0.006	0.928	0.001	0.657	0.006
N	1156465		1156465		942478		942478	
R <sup>2</sup>	0.011		0.063		0.007		0.039	

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

Table 9.2: Immigrants vs white UK-born: participation

Variable	MALES				FEMALES			
	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE
Caribbean	-0.094	0.01	-0.002	0.009	-0.016	0.01	0.027	0.01
Black African	-0.076	0.009	-0.126	0.009	-0.136	0.011	-0.096	0.01
Indian	-0.038	0.006	-0.035	0.006	-0.149	0.008	-0.075	0.008
Pakistani	-0.092	0.008	-0.08	0.007	-0.542	0.008	-0.335	0.008
Afro-Asian	0.037	0.007	-0.012	0.006	-0.034	0.012	-0.01	0.011
Bangladeshi	-0.123	0.013	-0.089	0.011	-0.569	0.011	-0.311	0.011
Chinese	-0.04	0.012	-0.057	0.011	-0.153	0.015	-0.149	0.014
other ethnic	-0.056	0.007	-0.096	0.007	-0.158	0.009	-0.156	0.009
w China	-0.037	0.03	-0.012	0.029	0.134	0.034	0.112	0.032
w Old Comm	0.045	0.006	-0.01	0.005	0.052	0.008	-0.012	0.008
w New Comm	0.009	0.006	-0.006	0.006	-0.028	0.009	-0.051	0.008
w Other	0	0.006	-0.044	0.006	-0.089	0.009	-0.126	0.008
w Irish	-0.087	0.007	-0.017	0.006	-0.027	0.007	-0.005	0.007
w EU	0.018	0.005	-0.01	0.005	-0.011	0.006	-0.035	0.006
Other Europe	-0.107	0.012	-0.116	0.012	-0.154	0.012	-0.16	0.012
age	-	-	0.027	0	-	-	0.033	0
age2/100	-	-	-0.042	0	-	-	-0.048	0.001
married	-	-	0.074	0.001	-	-	0.03	0.002
n children	-	-	-0.011	0	-	-	-0.095	0.001
degree	-	-	0.128	0.002	-	-	0.263	0.002
A-level	-	-	0.105	0.002	-	-	0.215	0.002
O-level	-	-	0.099	0.002	-	-	0.17	0.002
Region dummy	No		Yes		No		Yes	
Intercept	0.89	0.001	0.464	0.005	0.732	0.002	0.153	0.008
N	1322160		1322160		1288255		1288255	
R <sup>2</sup>	0.003		0.166		0.018		0.123	

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

Table 9.3: Immigrants vs white UK-born: self-employment

Variable	MALES				FEMALES			
	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE
Caribbean	-0.047	0.009	-0.085	0.009	-0.043	0.00	-0.059	0.004
Black African	-0.064	0.008	-0.068	0.008	-0.026	0.00	-0.039	0.006
Indian	0.052	0.008	0.034	0.008	0.034	0.007	0.021	0.007
Pakistani	0.09	0.01	0.09	0.01	0.034	0.013	0.032	0.013
Afro-Asian	0.107	0.012	0.092	0.012	0.014	0.009	-0.001	0.009
Bangladeshi	-0.033	0.012	-0.033	0.012	-0.037	0.01	-0.033	0.013
Chinese	0.137	0.018	0.132	0.018	0.085	0.014	0.073	0.015
other ethnic	-0.02	0.007	-0.033	0.008	0.002	0.006	-0.012	0.006
w China	-0.037	0.031	-0.029	0.031	0.012	0.036	0.018	0.036
w Old Comm	0.009	0.009	0.02	0.009	0.044	0.007	0.044	0.007
w New Comm	0.028	0.008	0.013	0.008	0.061	0.008	0.047	0.008
w Other	0.009	0.008	0.003	0.008	0.06	0.008	0.047	0.008
w Irish	0.061	0.008	0.036	0.008	0.003	0.005	-0.007	0.005
w EU	0.005	0.007	0.008	0.006	0.036	0.005	0.035	0.005
Other Europe	0.047	0.014	0.039	0.014	0.064	0.011	0.057	0.011
age	-	-	0.008	0	-	-	0.004	0
age2/100	-	-	-0.006	0	-	-	-0.002	0
married	-	-	0.014	0.002	-	-	0.013	0.001
n children	-	-	0.008	0.001	-	-	0.015	0.001
degree	-	-	-0.026	0.002	-	-	0.046	0.002
A-level	-	-	0.003	0.002	-	-	0.025	0.001
O-level	-	-	-0.028	0.002	-	-	0.012	0.001
Region dummy	No		Yes		No		Yes	
Intercept	0.147	0.002	-0.09	0.006	0.06	0.001	-0.081	0.005
N	1156465		1156465		942478		942478	
R <sup>2</sup>	0.002		0.029		0.002		0.021	

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

Table 9.4: Immigrants vs white UK-born: wages

Variable	MALES				FEMALES			
	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE
Caribbean	-0.114	0.024	-0.181	0.023	0.13	0.019	-0.058	0.015
Black African	-0.072	0.026	-0.29	0.023	0.041	0.021	-0.207	0.02
Indian	-0.038	0.019	-0.181	0.016	-0.047	0.018	-0.169	0.015
Pakistani	-0.296	0.026	-0.244	0.021	-0.121	0.042	-0.143	0.038
Afro-Asian	0.068	0.025	-0.141	0.02	0.054	0.027	-0.149	0.024
Bangladeshi	-0.664	0.048	-0.526	0.041	-0.19	0.093	-0.19	0.073
Chinese	-0.03	0.05	-0.19	0.04	0.167	0.04	-0.087	0.032
other ethnic	0.077	0.023	-0.11	0.021	0.099	0.02	-0.103	0.018
w China	-0.057	0.086	-0.059	0.071	-0.114	0.075	-0.059	0.063
w Old Comm	0.269	0.023	0.185	0.021	0.266	0.018	0.136	0.016
w New Comm	0.207	0.019	0.044	0.016	0.177	0.019	0.019	0.016
w Other	0.312	0.024	0.154	0.021	0.291	0.022	0.084	0.019
w Irish	0.058	0.018	0.015	0.016	0.161	0.014	0.049	0.012
w EU	0.055	0.018	0.038	0.015	0.09	0.014	0.02	0.012
Other Europe	-0.006	0.038	-0.047	0.031	-0.018	0.034	-0.099	0.027
age	-	-	0.088	0.001	-	-	0.07	0.001
age sq/100	-	-	-0.098	0.001	-	-	-0.079	0.001
married	-	-	0.132	0.003	-	-	0.054	0.003
degree	-	-	0.761	0.005	-	-	0.785	0.004
A-level	-	-	0.344	0.004	-	-	0.404	0.004
O-level	-	-	0.194	0.004	-	-	0.201	0.003
part-time	-	-	-0.277	0.008	-	-	-0.208	0.003
Region dummy	No		Yes		No		Yes	
Intercept	1.869	0.01	-0.256	0.016	1.553	0.009	-0.033	0.017
N	190845		190188		189329		188941	
R <sup>2</sup>	0.023		0.344		0.03		0.325	

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



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